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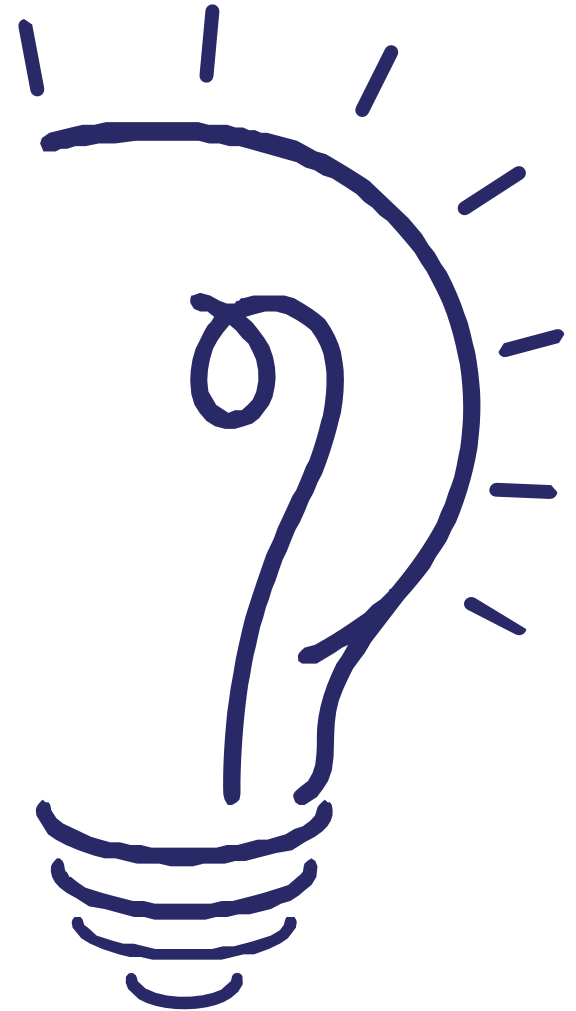
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Jointly Organise

The National Level Training e-Workshop

on

The Learning Methods
& Strategies in line with
The National Education
Policy, 2020



1st & 2nd December 2023

Special Issue of
Compilation of Lesson Plans
of
THE NATIONAL LEVEL TRAINING e-WORKSHOP
On
**The Learning Method and strategies in line with The National
Education Policy, 2020.**

Dated 1st & 2nd December, 2023

Organised by
The Lord's Universal College of Education
&
Gandhi Shikshan Bhavan's Smt. Surajba College of Education

Editor-In-Chief

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Asst. Prof. Soma Guha
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FROM THE EDITOR'S DESK



We are excited to unveil a curated selection of constructivist lesson plans, each a testament to the creativity and insight of our dedicated participants. These plans are designed to flourish in a variety of classroom scenarios, ensuring that educators can meet the unique needs of their students transforming learning into an immersive experience. Each plan exemplifies the core principles of constructivism, emphasizing active learning, collaboration, and critical thinking. From collaborative explorations that cultivate teamwork to engaging hands-on activities that ignite curiosity, each lesson invites students to build their own understanding in vibrant, meaningful ways.

Our editorial team has carefully polished these gems, ensuring they shine with clarity and adaptability for diverse learning environments. By fostering a dynamic classroom environment where learners construct their own understanding, these lesson plans empower students to engage deeply with the material, promoting not just academic success but also lifelong curiosity. We invite you to explore these thoughtfully designed plans and consider how they can transform your teaching practices. We invite you to dive into this treasure trove of innovative approaches and envision the transformative impact they can have on your teaching journey, turning every classroom into a canvas of discovery and connection.

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FOREWORD

The new era of education has ushered in with the drafting of the National Education Policy (NEP) in the year 2020 which has led to a paradigm shift in the approach of teaching learning. This has compelled educational institutions to change the conventional ways of thinking and operating in the context of treating the subjects and learners and the overall approach to providing education to them.

One of the very significant objectives of NEP is to create innovative and critical thinkers. The focus of this objective has many aspects to be considered while training the pre-service teachers.

The first and foremost direction that NEP has given is to pave the way for self-learning beginning from their foundation courses onwards by providing opportunities to the children to their innate potential capabilities through active learning. This necessitates that educational institutions adopt the diagnostic and remedial approach throughout.

Self-learning is possible and feasible only when children are interested and look forward to active learning. The interest is generated when they are thrown with some challenging tasks to explore and find solutions to the contextual situation that takes them to connect with the content from the prescribed syllabus.

This further leads to the development of higher-order thinking skills that result in the indulgence in critical and creative thought processes.

Bloom's Taxonomy of Higher Order Thinking model in the Cognitive, Affective, and Psychomotor Domain should prove as a dependable learning model to realise the aforementioned objectives of Independent learning. This necessitates that all the Teacher Education Institutions at all levels create facilitators more than those teachers who just teach.

NEP has suggested active methods to be widely practised, making students accountable for their learning and developing good decision-making skills to be applied in life situations. The crux of the e-workshop would be the Capacity Building in developing the lesson plan using a Systems Approach by blending Bloom's Taxonomy and Constructivist Approach.

The present proposed National Level e-workshop is a step forward for training the aspiring participants at all levels to apply the methods and strategies using the Constructivist approach to facilitate students' directional self-learning. The e-workshop proposes to orient the participants on the theoretical and conceptual bases and provide them with the opportunity to get hands-on experience.

The organising Institutes have delimited the workshop by selecting the following methods and strategies based on the Constructivist approach. The experts from different parts of India would be briefing the participants about NEP's views and suggestions on active self-learning and also orienting on these methods in line with the recommendations. This would be followed by hands-on learning experience in groups to critically understand the process of methods and writing the lesson plan

Later, the participants would make the lesson plan individually under the guidance and implement it at their respective workplaces.

The participants who wish to write an article on their experience right from the training till executing the lesson plan in the classroom would be guided to pen down their reflections in a particular format. Their papers will be published in the journal with the ISBN tag. (with extra publishing charges)

The participants who are not interested in publishing their articles, the organisation would collect their lesson plans, refine and compile all of them (excluding the lesson plans of the participants who want the paper to be published) in the form of an e-book and would share with all the participants along with the certificates.

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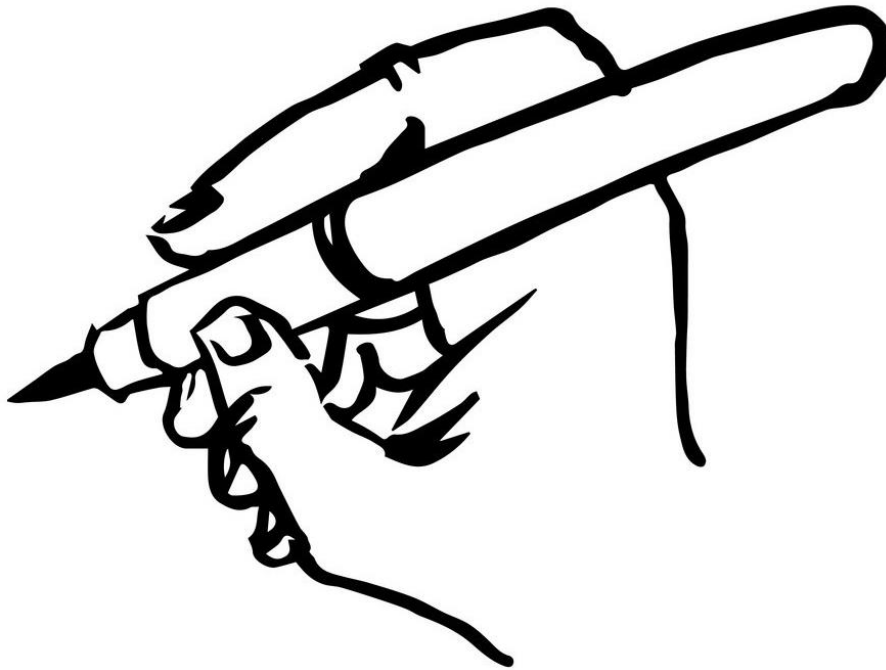
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CONCEPT NOTE



Active Learning Strategies In the Light Of NEP 2020.

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The National Education Policy (NEP) 2020 in India represents a paradigm shift in the country's education system, emphasising the need for a learner-centric approach along with a systemic reshuffling. Active learning, a pedagogical approach where students engage in meaningful activities and take responsibility for their learning, aligns well with the NEP's vision. This concept note aims to explore active learning strategies and their integration within the framework of NEP 2020.

Salient Features of the New Education Policy (NEP) 2020

The National Education Policy (NEP) 2020 in India is a comprehensive framework that aims to transform the country's education system. Some of its key highlights include:

- **Holistic and Multidisciplinary Education:** NEP 2020 focuses on providing a holistic education by integrating both vocational and academic streams. It emphasises multidisciplinary learning, allowing students to choose subjects across various fields.
- **Early Childhood Care and Education (ECCE):** The policy emphasises the importance of ECCE, aiming to provide foundational education to children between the ages of 3 to 6 years.
- **Universalization of Education:** NEP 2020 aims to achieve universal access to education for all children aged 3-18 years by 2030. It aims to increase Gross Enrollment Ratio (GER) in higher education to 50% by 2035.

- **Flexible Academic Structure:** The policy proposes a flexible academic structure with multiple entry and exit points in higher education, allowing students to choose courses according to their interests and opt out with appropriate certification if necessary.
- **Emphasis on Skills and Experiential Learning:** NEP 2020 focuses on skill development, vocational training, and experiential learning. It encourages internships, apprenticeships, and practical learning experiences.
- **Teacher Training and Professional Development:** The policy emphasises continuous professional development for teachers, focusing on improving their pedagogical skills, knowledge, and capacities.
- **Use of Technology:** NEP 2020 highlights the integration of technology in education, promoting online learning resources, digital tools, and the use of technology for personalised learning experiences.
- **Assessment Reforms:** The policy recommends a shift from rote learning to competency based assessment. It aims to reduce the emphasis on high-stakes exams and promote holistic development through continuous evaluation.
- **Languages and Multilingualism:** NEP 2020 promotes the preservation and inclusion of regional languages while ensuring proficiency in at least one Indian language in addition to Hindi and English.
- **Higher Education Reforms:** The policy suggests the establishment of the National Research Foundation (NRF) and restructuring higher education regulatory bodies to improve the quality of higher education institutions.

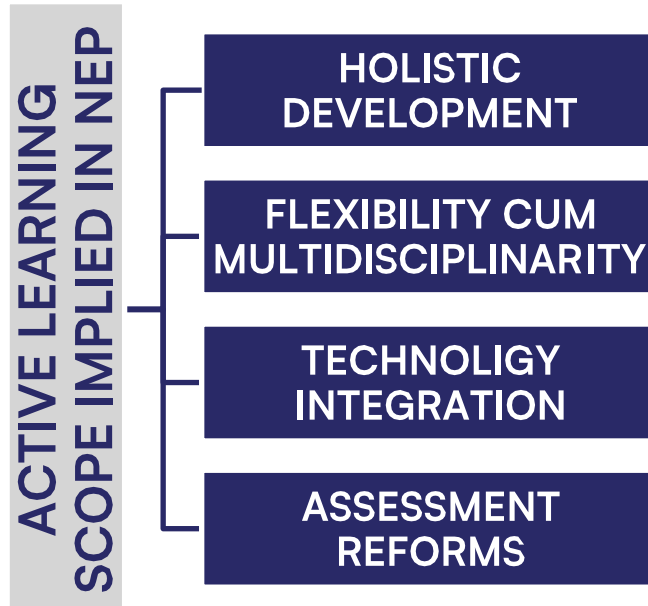
NEP 2020 aims to address various challenges in the education sector and foster a more inclusive, innovative, and skill-oriented education system in India, in the world map of Education.

Understanding Active Learning

Active learning refers to an onset of instructional strategies and approaches that would encourage students to participate actively in the teaching-learning process. It involves diverse methodologies such as problem-based learning, collaborative learning, experiential learning, flipped classrooms, and inquiry-based learning. These approaches focus on fostering critical thinking, problem-solving skills, and practical knowledge application.

An extract of Active Learning implied in the recommendations of NEP 2020:

A handful of recommendations and areas could be mapped out from the recommendations of NEP 2020 thereby the principles and practice of active learning could be materialised in schools and colleges of India in the years to come. The following flowchart would reveal a few such significant dimensions of actions whereby active learning could be materialised in Indian classrooms.



Let us have a quick review of such dimensions.

- ❖ **Holistic Development:** NEP 2020 emphasises holistic development by shifting from rote memorization to holistic learning. Active learning strategies promote a deeper understanding of concepts, encouraging students to apply knowledge in real-world scenarios, thereby fostering holistic development.
- ❖ **Flexibility and Multidisciplinarity:** Active learning encourages interdisciplinary learning and flexibility in curriculum design. NEP 2020 encourages the integration of various subjects and skills, enabling students to explore diverse areas of knowledge through active engagement.
- ❖ **Technology Integration:** The policy advocates leveraging technology for personalised learning. Active learning strategies can effectively utilise educational technology, supporting personalised learning experiences, adaptive assessments, and access to vast educational resources.
- ❖ **Assessment Reforms:** NEP 2020 emphasises competency-based learning and continuous assessments over summative examinations. Active learning strategies allow for ongoing evaluation of students' understanding, skills, and application rather than relying solely on exams.

How to implement Active Learning in Classrooms?

There are several ways and means to realise active learning in classrooms. Active Learning strategies are an ever-evolving entity and may expand its dimensions in the years to come. With the groundbreaking entry of AI-supporting platforms like Chat-GPT will provide many opportunities for practitioners to design their content and activity set within no time. A few suggested means are summarised below:

- **Collaborative Learning:** Encourage group discussions, team projects, and peer-to-peer teaching to promote collaboration and shared learning experiences.
- **Flipped Classroom:** Utilise online resources and pre-recorded lectures to enable students to grasp foundational concepts before class, facilitating in-depth discussions and problem solving during class time.

Challenges and the Way Forward

Implementation of active learning strategies may face challenges such as infrastructure limitations, teacher training needs, and assessment modifications. To address these challenges, continuous professional development for educators, infrastructure enhancement, and policy-level support for assessment reforms are essential. The IOWA State University's Center for Excellence in Learning and Teaching (CELT) has formulated a Hand-Out of 226 active learning strategies (<https://online.fliphtml5.com/ommix/dcix/>); which would be a ready reckoner for anyone who wishes to amalgamate the recommendations of NEP 2020 to make teaching and learning more joyful and rewarding.

Active learning strategies align closely with the objectives outlined in NEP 2020, fostering a learner-centric approach and enabling holistic development. By integrating these strategies effectively, educational institutions can create engaging, meaningful, and transformative learning experiences for students, preparing them to excel in an ever-evolving world.

References:

- National Education Policy 2020, Government of India
- Bonwell, C. C., & Eison, J. A. (1991). Active Learning: Creating Excitement in the Classroom. ASHE-ERIC Higher Education Report No. 1.
- 226 Active Learning Strategies (2017) [Licensed under Creative Commons], Center for Active Teaching and Learning, IOWA State University.

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Government of India: National Education Policy-2020

The National Education Policy-2020 (NEP-2020) was approved by the Union Cabinet of India on July 29th, 2020. The committee was chaired by Dr. Kasturirangan, former Chairman of ISRO. The committee was composed of 8 other members from different branches of Education. The NEP-2020 focuses on providing accessible, inclusive, and equitable education. According to NEP-2020 the pedagogy used in a classroom must reflect the inclusive approach so that learners can relate what is taught in the class with the multiple perceptions and realities they experience. NEP-2020 is also for experiential learning, encouraging learning while observing, experiencing, and handling real-world applications not on rote learning and memorization. NEP-2020 promotes multi-disciplinarily. Accordingly, there is a need to change the pedagogical approach to instil in the students the multidisciplinary approach for understanding the core concepts, identifying and formulating problems, and exploring possible solutions. It also provides for an increase in education expenditure from 3% to 6% of the GDP on a priority basis.

Goals of NEP-2020

The goals are to develop creativity, critical thinking, problem-solving, communication skills, and vocational skills, and promote lifelong learning. Key skills to focus on include creativity, critical thinking, communication, collaboration, and problem-solving. The new education policy focuses on transforming the Indian education system by providing equitable and quality education to all children aged 3-18 years. It is the transition from a 10 + 2 structure to a 5 + 3 + 3 + 4 system. The objective is to realize an innovative, student-centric structure that segments student education into four stages: Foundational, Preparatory, Middle, and Secondary. The stages are considered crucial and in a natural order where students progress from one stage to another mentally, shaping and broadening the thought process holistically. It is recommended to attain foundational literacy and numeracy among students by Grade 3.

NEP-2020 suggests a multidisciplinary flexible 4-year undergraduate program with multiple exit points (certificate, diploma, bachelor) that help students gain proficiency in a particular skill set, completely. It paves the way for a multidisciplinary approach that enables students to opt for subjects across streams, thus encouraging cross-disciplinary learning. It also attempts to raise the bar in this direction and makes ample provisions to encourage and proliferate technological interventions in the education system. It also proposes setting up a new National Assessment Centre for evaluating learning outcomes.

National Curriculum Framework (NCF)

The NEP-2020 aims to devise four National Curriculum Frameworks (NCFs): i) National Curriculum Framework for Early Childhood Care and Education (NCFECE); ii) National Curriculum Framework for School Education (NCFSE); iii) National Curriculum Framework for Teacher Education (NCFTE); iv) National Curriculum Framework for Adult Education (NCFAE). A mandate document was released recently to bring about a paradigm shift in education with a focus on the holistic development of children, emphasis on skills, the vital role of teachers, learning in the mother tongue, and cultural rootedness.

NEP 2020 on Teacher Education

In this NEP 2020 report, 'Teacher Education' is considered as a part of Higher Education. This report suggests that all universities and colleges must have a 'House' Education Department that will offer B.Ed., M.Ed., and Ph.D. in Education. This means that the policy expects that all universities should have an Education department that will ensure to update all faculty members of other departments with various curriculum designs, pedagogical understanding, and various reliable evaluation methods and techniques. It also proposes different formats for B.Ed. degree. It emphasises having an 'Integrated B.Ed.' course of 4 years. The core objective of all of these formats is that the candidate must be prepared with good content knowledge, pedagogical skills, and educational understanding.

Pedagogical focus of the NEP-2020

The NEP-2020 focuses on providing accessible, inclusive, and equitable education. The pedagogy used in a classroom must reflect the inclusive approach so that learners can relate what is taught in the class with the multiple perceptions and realities they experience (NEP 2020). The NEP-2020 suggests a learner-centric approach and gives teachers more autonomy in choosing aspects of pedagogy so that they may plan teaching-learning in the manner they find most effective for the students in their classrooms.

However, the meaningful exercise of this autonomy and flexibility depends on the teacher's understanding of the different pedagogical approaches. In the past few decades, various policy frameworks have been developed to address the evolving needs of different pedagogical approaches in higher education. The NEP-2020 aims to overhaul the existing education system through a multipronged approach, one of which is developing a pedagogy that makes education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and enjoyable. As the NEP 2020 strives to develop well-rounded, competent individuals with 21st-century skills, the curricula, and pedagogies have to be reoriented and revamped for the same, which includes raising the standard of curricula and using appropriate pedagogies to deliver effectively to the learners.

The design of educational programs is always guided by beliefs about how students learn in an academic discipline. Edgar Dale's Cone of Experience helps Learning & Development professionals plan learning experiences that take advantage of the most effective learning environments. According to NEP-2020 pedagogical practices determine the learning experiences arranged for the learners, thus directly influencing their learning outcomes. Therefore, the use of relevant pedagogy is necessary to achieve the objectives of the curricula successfully. Such pedagogy has to have an increased emphasis on an inclusive approach to communication, discussion, debate, research, and cross-disciplinary and interdisciplinary thinking opportunities. Teachers & teacher educators should be provided with requisite training on

pedagogical approaches for capacity building to achieve the desired learning outcomes for students. Such aspects of training on pedagogy must focus on: i) Addressing the different learning needs of students within a classroom and institutions of differently-abled students; ii) The difference in the learning styles (visual, auditory, and kinaesthetic learning styles) of students; iii) Diversity of the background of students in terms of the discipline of study, the social, economic, cultural and educational background; iv) The difference in the pace of learning.

There are multiple methods of learning which can be used based on the desired learning outcomes or degrees of active participation of learners in the teaching-learning process both within and outside the classroom. For instance, if the learning outcome is sensitization about a real-time problem, then it is essential to incorporate fieldwork with an observational study or survey in addition to the theoretical grounding required. If the aim is to provide hands-on or experiential learning, it is important to incorporate field-based, example-based, or project-based learning as pedagogy. Further, when the active engagement of learners in the learning process is desired, the use of collaborative and cooperative learning strategies, such as group discussion, brainstorming, role plays, case studies, and self-learning methods supporting flipped classroom pedagogy are important teaching-learning methods to encourage articulation, demonstrate new understandings of the content and apply it in solving problems. Flipped classroom pedagogy involves self or peer study by students before class to develop an understanding of the learning material provided by the teacher and thereafter engage in debate, discussion, and analysis among students guided by the teacher during class time. It is one of the important pedagogies to encourage articulation, demonstrate new understandings of the content, and apply it in solving problems. Each learning method may have an appropriate pedagogy for delivering to the learners what is to be learned. Thus, determining the appropriate pedagogy for a chosen learning method is an essential step toward effective teaching-learning.

Considering the significance of pedagogy and its different aspects NEP-2020 has formulated guidelines for innovative pedagogical approaches taking care of the following objectives:

- i) Pedagogical approaches for different learning needs of students
- ii) Pedagogical approaches for different modes of teaching-learning such as physical, blended, and online
- iii) Pedagogical approaches for different disciplines, multi and interdisciplinary approaches
- iv) Evaluation & Assessment corresponding to defined Learning Outcomes requiring specific pedagogical strategies
- v) Pedagogical approaches enabling collaboration, cooperation, creation, and co-creation among learners
- vi) Capacity building of teachers & teacher educators concerning pedagogical approaches
- vii) Any other measures to achieve recommendations of NEP 2020 concerning pedagogical approaches.

The Learning & Teaching Methods & Strategies

The most effective pedagogies encompass a range of teaching techniques, including a detailed guide for teachers, structured and whole-class group work, guided learning, assessment practice, and individual activity. These pedagogies focus on improving higher-order thinking and metacognition and make good use of questioning and dialogue in doing so. NEP-2020 suggests: Problem-based learning methods, Role-based learning methods & Experiential learning methods for designing lesson plans. Husbands & Pearce's (2012) review has set out the following nine claims about what makes for great pedagogic practices drawing on a range of research evidence:-

- I) Effective pedagogies give serious consideration to the pupil's voice
- ii) Effective pedagogies depend on behaviour (what teachers do), knowledge and understanding (what teachers know), and beliefs (why teachers act as they do).
- iii) Effective pedagogies involve clear thinking about longer-term learning outcomes as well as short-term goals.
- iv) Effective pedagogies build on pupils' prior learning and experience.
- v) Effective pedagogies involve scaffolding pupil learning.
- vi) Effective pedagogies involve a range of techniques, including whole-class and structured group work, guided learning, and individual activity.
- vii) Effective pedagogies focus on developing higher-order thinking and metacognition and make good use of dialogue and questioning to do so.
- viii) Effective pedagogies embed assessment for learning.
- ix) Effective pedagogies are inclusive and take the diverse needs of a range of learners, as well as matters of student equity, into account.

Pedagogy plays a crucial role in determining the learning outcomes of students. A well-designed pedagogical approach can foster critical thinking, problem-solving skills, and creativity among students. On the other hand, a poor pedagogical approach can lead to disengagement, boredom, and lack of motivation among students. A pedagogical approach to learning emphasises the importance of creating a supportive and engaging learning environment that is conducive to student success.

Following are some learning & teaching methods & strategies-

- I) The flipped classroom is a teaching strategy that allows instructors to more actively engage with students in the classroom. Flipped classrooms are a form of blended learning, a term that refers to any form of education that combines face-to-face instruction with computer mediated activities. This approach allows instructors to more deeply engage their students with evidence-based learning practices that can significantly improve student outcomes.
- ii) Gamification and game-based learning are similar in that both strategies promote engagement and sustained motivation in learning. The pedagogical values these two strategies can bring to instruction, and game elements appropriate for face-to-face and online courses.

- iii) Project-based learning (PBL) or project-based instruction is an instructional approach designed to allow students to develop knowledge and skills through engaging projects set around challenges and problems they may face in the real world. PBL involves students designing, developing, and constructing hands-on solutions to a problem.
- iv) One popular pedagogy for teaching is Constructivist pedagogy, which emphasises the importance of active learning and student engagement in the learning process. This approach emphasises the idea that knowledge is constructed by the learner, rather than simply being transmitted by the teacher. Constructivist pedagogy encourages students to ask questions, explore ideas, and collaborate with others to build their understanding of the material. By using this approach, teachers can help students develop critical thinking skills and become more independent learners.
- v) Critical pedagogy is considered progressive and even radical by some policymakers because it critiques power structures that are frequently taken for granted. Critical teaching aims to encourage students to challenge their ideas and thoughts, their practices, and their beliefs, to gain a deeper understanding and think critically. Critical teaching frequently depends upon the students' approach towards teaching, in which teachers uncover different strengths of students' backgrounds, and nurture them to ensure that students are confident to express their feelings and accomplish their goals.
- vi) Culturally Responsive Pedagogy: Culturally responsive teaching considers cultural contexts. To apply culturally responsive teaching, teachers make changes in their pedagogical practice, to suit the cultural needs of a child belonging to any specific cultural background. Sometimes the educational institute makes changes in its policies and procedures to facilitate more community participation. A culturally responsive teaching approach encourages and takes into consideration the diverse races, beliefs, ethnicities, and backgrounds of students. The cultural responsiveness of a cooking lesson would be to provide access to video pedagogy to provide knowledge about the cultural cuisines in the course of the study.
- vii) The Socratic pedagogy mainly involves the dialogue between the instructor and students. The teacher would ask students probing questions and explore the underlying beliefs that shape the perceptions and views of the students. Socratic pedagogy includes a process in which learners can develop their psychological and social skills to become active members of a democratic society. Students get the support to challenge traditional concepts about knowledge, explore alternatives, and create educational knowledge using their experiential learning, ideas, and meaningful dialogues with others. Thus, the Socratic pedagogy curriculum will mostly include the anonymous peer review process, collaborative instructions, comparative context, and thinking as learners explore established ideas with others to open their minds and develop a better understanding of concepts.
- viii) Constructivist pedagogy is an educational theory that emphasises the importance of student-centered learning. It focuses on engaging students in activities that enable them to construct their own knowledge and encourage them to actively participate in the learning process. Constructivist pedagogy is based on the belief that each student has a unique set of skills and abilities, which can be developed through purposeful activities and meaningful reflection.

Multimodal Teaching and Learning Approach: Literature on multimodal teaching and learning approach argues that using various modes of teaching and learning improves attention span. Therefore classroom communication is thus considered to be essentially multimodal. According to UNESCO, it is a general change that is deliberate and must never be regarded as a simple adjustment. Innovative practices are tools that empower both students and teachers. By engaging in innovative practices the learners' needs are met because it supports student's preference for learning by doing. Innovative practices are promising for instructors because they support teachers in engaging students with hands-on inquiry learning. Various research on innovative multimodal teaching and learning practices proved that if the student does have multiple learning styles, the benefits gained through innovative multimodal teaching strategies include the ability to learn more quickly and at a deeper level so that recall at a later date will be more successful. Therefore, teacher education & professional development programs should be acquainted with and trained on how to effectively utilize innovative multimodal practices for enhanced students' better understanding & sense-making.

Some useful links-

- Pedagogy For Teaching: A Classroom Guide
<https://www.structural-learning.com/post/pedagogy-for-teaching-a-classroom-guide>
- Guidelines for Innovative Pedagogical Approaches & Evaluation.
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Scaffolded Problem-Based Learning Strategy

Prof.(Dr.) Vaishali Sawant,

Hansraj Jivandas College of Education

According to the National Education Policy (NPE) of 2020, the primary focus of curriculum and pedagogy reform at all stages is to facilitate the holistic development of learners. The overarching goal is to shift the education system from the current culture of rote learning towards promoting real understanding and the ability to learn. To foster 21st-century skills, all aspects of curriculum and pedagogy need to be reoriented and revamped.

The Scaffolded Problem-Based Learning Strategy (SPBLS), an instructional strategy inspired by constructivist Epistemology enhances human learning by presenting authentic situations. It provides resources, instructions, and guidance for learners to develop their knowledge domain. SPPBS is a crucial part of the transition from a teaching paradigm to a learning paradigm, focusing on what students are learning rather than what the teacher is teaching. Given the complex nature of the Problem-Based Learning Strategy (PBL), scaffolding is necessary for learners to engage in sense-making, manage their investigations, and solve problems.

SPPBS involves practising, using, and developing processing skills, group skills, critical thinking skills, and self-directed learning skills, ultimately leading to effective problem-solving. It functions as both a curriculum and a process, comprising carefully selected and designed problems that mirror real-life and career situations. In SPBLS, the mentor's role is to facilitate the process, assist in the selection and design of problems, and provide appropriate scaffolds and resources.

A teacher at any level should possess knowledge and skills related to SPBLS, including:

I) Steps involved in the use of SPBLS:

- Step I- Presentation of the Problem by the teacher
- Step II- Discuss & identify the exact problem statement
- Step III- Action Plan (Group Plans)
- Step IV- Independent study (finding answers independently)
- Step V- Arriving at the solution and its presentation
- Step VI- Reflections

II) Types and functions of Scaffolds

The functions of scaffolds can be summarised as follows:

- provides support
- reduces frustration
- reduces the degrees of freedom
- functions as tools
- extends the range of the learners
- allows the learners to accomplish tasks not otherwise possible

Scaffolds help in minimizing cognitive load experienced by the learners. The different types of scaffolds are Cognitive, Metacognitive, Procedural, Context and Motivational scaffolds

III) Selection and Design of Problems

Problems should be based on real life (complex and messy), interesting, meaningful and relevant to the age group.

Sources of Problems can be current issues, newspapers, day-to-day life examples, and Internet, etc.

Problems are formulated based on the 3C3R model for problem formulation

C-Content, C-Context, C- Connection & R-Researching, R- Reasoning, R-Reflecting

IV) Design lesson plans based on SPBLS

Subject: _____ Unit: _____ Std: _____

Instructional procedure	Provision of Scaffolds	Students tasks
Presentation of the Problem (Engage) Discuss & identify the exact problem statement (Explore) Action Plan (group formation and division of work) (Explore) Independent study (Explain & Elaborate) Group arrives at solution and its presentation (Explain & Elaborate) Reflections (Evaluate)	Cognitive scaffold (Concept map-step 3) Metacognitive scaffold (Problem definition template & Reflections-step 2-6) Motivational scaffolds (step 2 -6) Context Scaffolds (Step 2 -6) Procedural scaffold (Step 2 -6)	Teacher presents the problem Students engage & explore the problem, raise questions and arrive at the problem statement 3) Students go in groups, work on the problem definition template and plan the work Individually students work to explain and elaborate answers to questions raised 5) Group arrives at solution and presents 6) Reflects on content & process

5 E's of Constructivist Approach



Dr. Savita Manchekar
Head of the Institute
The Lord's Universal College of Education
Subject: Civics Std VIII
Topic: People's Participation

ANALYSIS:

Goal:

to develop critical understanding of People's participation in the social cause

Content Analysis:

Meaning of People's participation

Concept: Social development

Purpose: Social Development

Ways to participate:

Identifying local problems.

Taking initiative in solving problems

Vigilance on the local government bodies.

Values: Citizenship values

Task Analysis: (Pre-requisites... if required to be trained beforehand)

Social skills

Learners' analysis:

Early stage of Adolescence, Curious, and eager to explore ideas. Basic knowledge of rights and duties of citizens.

Values: Citizenship values,

The learner will be able to.....

Critically Understand the concept of people's participation in social welfare.

Reflect upon the importance of helping local government bodies.

Stages and Content points	Activities to facilitate learning	Students' Activities
<p>Phases of Constructivism:</p> <p>1. Engage: A scenario (context)</p> <p>Shrikant after many attempts got a job in Mumbai. His prime concern before joining duties was to get a good residence. The real estate agent helped him to find a flat in a decent area. He was happy to see the house equipped with basic facilities. Time passed by. He was very happy with his job but not with his deteriorating health. He was forced to take medical leave for a few days and rest under the care of his parents at his native place. Shrikant returned with a fresh mind and body. This time his mother came along to take good care of him. But again he started complaining about health problems. His mother was concerned and started observing the surroundings of the house. She also noticed the problems of mosquitoes and flies in the house during evening time</p>	<p>The teacher presents a a scenario on PPT</p> <p>. Questions for common understanding of the scenario</p> <ul style="list-style-type: none"> ● What is the problem here? ● What must have been the probable causes? ● If you were his neighbor, how could you help him with this problem? 	<p>Careful reading of the scenario (individually)</p> <p>Students responses</p> <p>-</p>
<p>. Explore:</p> <p>a. By Ways of passive participation</p> <p>Identifying the problems. Garbage dumping and</p>	<p>Formation of small groups of students to discuss and get common understanding of the scenario</p>	<p>After viewing the</p>

<p>mismanagement by residence</p> <p>A PPT on the present situation of garbage dumping in Mumbai</p> <p>A YouTube https://www.youtube.com/watch?v=fsdGsUOKWu4</p> <p>b. By way of Active participation taking initiative in solving the problems:</p> <p>Taking the lead in solving the problem.</p>		<p>scenario students discuss on the questions</p> <p>They view the PPT and the YouTube link and identify the problem and causes.</p> <p>Students then make an action plan.</p> <p>Distribute the following activities among the group members:</p> <ul style="list-style-type: none"> ● Visiting places where flies and mosquitoes are found ● Surfing through YouTube to identify the causes of ill health. ● Collecting newspaper clippings etc.
<p>3. Explanation: Cognitive construction of knowledge.</p> <p>Defining the concepts of People's passive and active participation in the Social Welfare</p> <p>Meaning: Citizens willingly join and help the local body Government in its efforts of social development.</p>	<p>linked to Content</p>	<p>Students get together and present the cause effect of the problem</p> <p>Cause: garbage around Shrikant's house Insect bites are the cause of ill health Assumptions drawn: Many people in the locality must be suffering</p>

<p>Active Participation Passive participation</p>	<p>Introduction of the topic</p>	<p>the same problem. People's wrong habits of disposal of garbage etc</p> <p>Students apply their experiences while dealing with the context and establish a connection with the content by way of defining the concepts and ways to help Local Body Government.</p>
<p>4. Elaboration: Application of new knowledge</p>	<p>Q: What are the common things that you identified?</p> <p>Q: What as neighbours you should do?</p>	<p>Students answer.</p> <p>Create awareness among people</p> <p>Active participation in waste management Helping Local Body Government.</p>
<p>EVALUATE: Learning outcomes Application Self, peer, tutor evaluation</p>	<p>Q. What are the ways through which you as citizens can help Local Body Government?</p> <p>Teacher Categorize students' responses as passive and Active participation.</p> <p>Teacher shows a video on YouTube.</p> <p>https://www.youtube.com/watch?v=l-ZDMZYgcNw</p> <p>Tr. links the content of social development, Active and</p>	<p>Students discuss and role play their ideas.</p> <p>-</p>

<p>Testing application of learned knowledge</p>	<p>passive participation.</p> <p>Teacher Gives the situation:</p> <p>Q. Suppose you see that the garbage van has not collected the garbage for 3 days and the surrounding area is infested with flies and dirt, How would you show active and passive participation to resolve the problem?</p> <p>Tr. May ask direct content questions</p> <p>Q: What is the passive participation of people?</p> <p>Q: What is the active participation of people?</p> <p>Q: How can the people's participation help the local body Government?</p> <p>Q: When you get voting rights, whom would you elect?</p>	<p>Every group may frame and ask questions to each other</p> <p>A written test may be given to answer.</p> <p>Generalizations may be drawn by relating two terms</p> <p>social development and people's participation.</p>
	<p>Write a letter to the ward officer to complain about the piling up of Garbage in your area</p>	<p>.The Individual task of letter writing</p>

LESSON PLAN

Self-Evaluating Rubric

5 E's Lesson Plan self-evaluation Rubric				
Check your lesson plans using the following criteria				
Criteria	Beginning (4)	Developing (6)	Accomplished (10)	My points
Engaging				
Case/situation/Questioning/ any other activity **The problem is well- embedded **Based on the familiar situation ** can connect with the content **Scope for exploration	Need to work on a few points	To some extent.	Evident throughout the lesson plan.	
Exploring				
** Clarity about the Inquiry ** Scope for Group work ** Scope for Individual and independent work ** Group processing for arriving at the conclusion on the case under investigation	Need to work more on it.	To some extent.	Evident throughout the lesson plan.	
Explaining				
** Connection between the context and content ensured ** Scope for learners queries to be resolved ** scope for further clarification on the content matter if required	There is lack of clarity on the theme of the lesson.	Few aspects are explained through good examples.	Every abstract ideas and facts are well illustrated for better understanding.	
Elaborating				

5 E's Lesson Plan self-evaluation Rubric

Check your lesson plans using the following criteria

Criteria	Beginning (4)	Developing (6)	Accomplished (10)	My points
Engaging				
** Case/situation/Questioning/ any other activity **The problem is well embedded **Based on the familiar situation ** can connect with the content **Scope for exploration	Need to work on a few points	To some extent.	Evident throughout the lesson plan.	
Exploring				
** Scope for in_depth learning of the content ** references for further learning provided ** Scope for application of the acquired learning in similar situation	Lecture method is used for teaching	Demonstrations, PPT are planned for students' active listening and viewing.	active learning strategies are used for students' active involvement.	

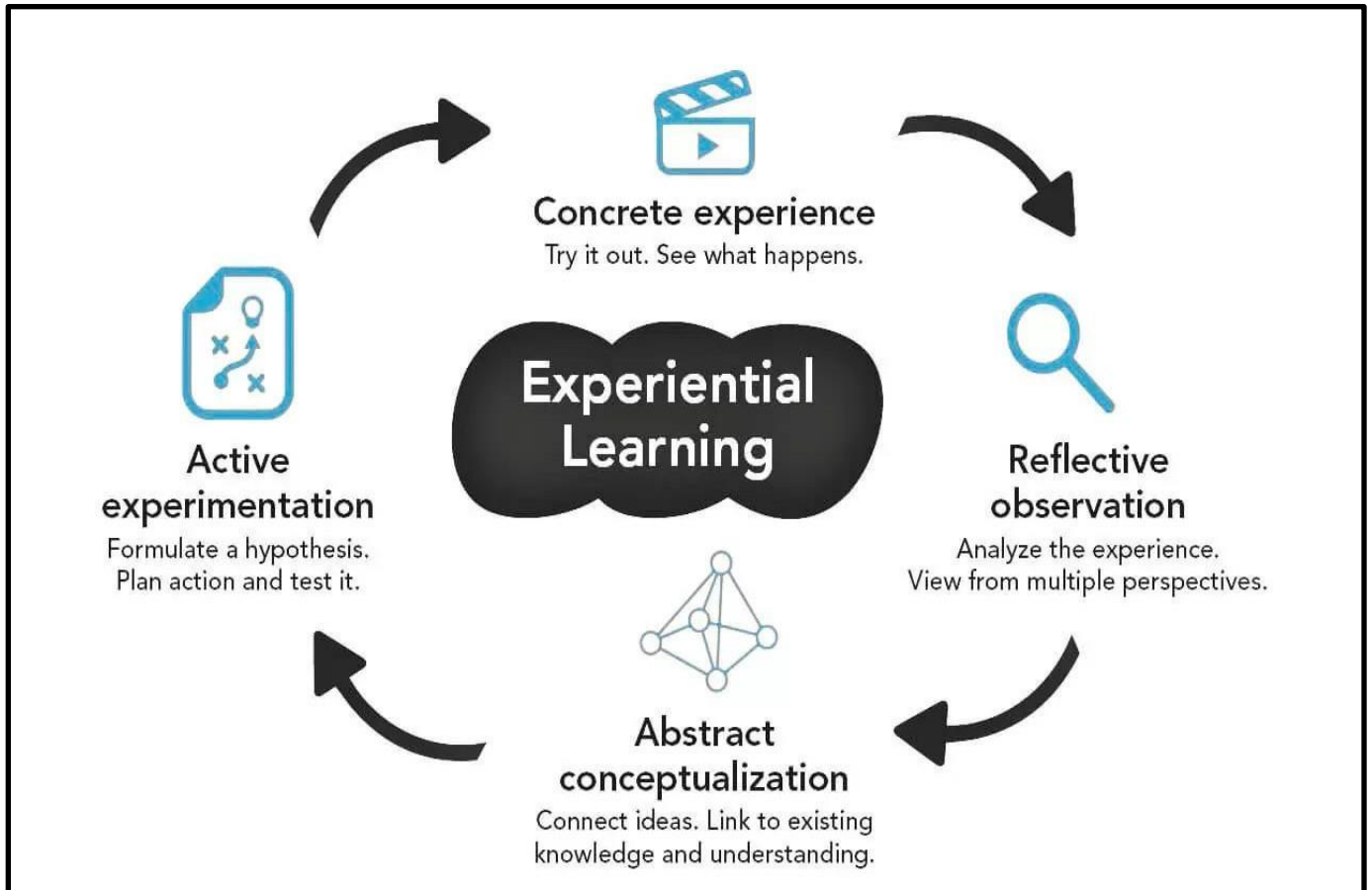
5. Evaluation

* Scope to find out Extent of Students' learning * provision for the Reflection on the learning process **Formative and Summative evaluation ensured *Evaluation appropriate for achieving learning	Teaching aids are planned for the lesson.	Interesting multimedia are planned to retain students' interest.	Challenging tasks are planned throughout the lesson to keep them active and interested throughout the lesson.	
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outcomes				
My Total score				
Self-Learning				
** Learning material as per students' interest Scope for Retention of motivation ** Scope for involvement in Group works ** Scope for Individual task ** freedom for working as per the ability				

Lesson Plan

Section I : Experiential Learning



Experiential Learning

Prof. Dr. Sunayana Kadle

Principal In-charge

Gandhi Shikshan Bhavan's Smt. Surajba College of Education

Direct experience combined with reflection is the foundation of experiential learning, a potent educational strategy. Instead of merely reading or listening, it enables pupils to learn by doing. This methodology facilitates the acquisition of skills, information, and values in pupils by means

of hands-on experiences that mimic real-life situations. The foundation of experiential learning is the notion that the best teacher is experienced. Students can investigate concepts and ideas more deeply by working hands-on with tasks. Students are encouraged to take responsibility for their education, exercise critical thought, and come up with original solutions to challenges. A primary advantage of experiential learning is its ability to foster the development of soft skills in students, such as problem-solving, communication, and teamwork. These are highly sought-after abilities that are necessary for success in the job.

Benefits of experiential learning include:

1. Deeper understanding and retention of concepts
2. Development of soft skills like teamwork, communication, and problem-solving
3. Increased student engagement and motivation
4. Better preparation for real-world challenges
5. Opportunities for personal growth and transformation.

Some experiential learning ideas for the classroom are as follows :

1. Simulations : Recreating real-world scenarios, such as mock trials, stock market simulations, or historical events.
2. Hands-on projects The students should be given to design, build, and test their own projects, like bridges, robots, or prototypes.
3. Role-playing : The students can be assigned roles to act out scenarios, like debates, job interviews, or cultural interactions.
4. Case studies:
5. Field trips : Organizing visits to relevant locations, such as museums, factories, or historical sites.
6. Group challenges : Assigning task in team-like puzzles or competitions.
7. Reflective journaling: Encouraging the students to reflect on their experiences and learning.
8. Service-learning :Integrating community service activities along with learning activities
9. Debates and discussions: Facilitating structured debates and discussions on contemporary topics
- 10 Creative performances*: Have students create and perform their own plays, skits, or presentations.

Teachers must choose experiences that align with ones learning objectives and cater to diverse learning styles.

Experiential Learning Lesson Plan-1

Name: Ms. Soma Guha & Dr. Sunita Shah
School/College: The Lord's Universal College of Education
Subject - Learning and Teaching
Topic: Creativity

Content Analysis

1. Theme/ Concept: Creativity

2. Brief summary of the content:

Concept/ Definition/ Examples: Creativity

Process / Steps: preparation, incubation, illumination, verification, and implementation.

Application: Educational implication

3. Values: Creation

Core elements - Content essential to nurture National Identity. Inculcation of Scientific Temper

4. Methods and Strategies: Experiential Learning, Group discussion, Constructivist approach

Co-teachers 1 and 2 (Expert in the same content matter)

Roles of the teachers :

Tr 1: Facilitating the understanding of the content matter using created context (examples, definitions and applications of creativity)

Tr 2: Facilitating the understanding of the content matter using created context (stages, characteristics of creativity and strategies of developing creativity)

5. References:

<https://medium.com/@DrRobertMuller/the-12-major-characteristics-of-creativity-bcb56f9301d0>

<http://www.testmycreativity.com/>

6. Learning Resources(Instructional Material) - Cards having activities written on them, bowl to keep cards, chart papers, markers, sketch pens, a box containing chalks, small size origami papers for activities, content notes, and Canva presentation

7. Learning Outcomes: At the end of the lesson a student will be able to...

- Identify creative work
- Perform creative activities
- Define creativity
- Connect context related to creativity with the content

- Generalise characteristics of creativity
- Analyse steps of creativity
- Showcase the planned strategy to develop creativity in school students
- Administer the creativity test on school children
- Interpret and reflect on the administered creativity test

8. **Previous knowledge:** Learners had seen many creative forms in their life.

9. **Planning for Teaching - Learning**

Stages and Content Points	Activities to facilitate learning	Students' Activities
<p>Engage: T1 (Concrete Experience)</p> <p>Examples of creativity</p>	<p>Teacher forms three groups and asks a student from each group to pick a chit from the bowl to get one of the following activities and also informs them to plan the activity in the group. They will get 5 minutes for preparation and two minutes for the presentation.</p> <p>Write any one alphabet and elaborate the alphabet in different ways using your ideas.</p> <p>Open the box and see the object. Do role-play to show different alternate uses of it. Give an incomplete story and ask students to complete it showing different possibilities.</p>	<p>Students attentively listen to the teacher.</p>

<p>Explore: T1 (Reflective observation)</p> <p>The tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others.</p>	<p>Teacher asks every group to reflect on the activity that they carried out on the basis of the following directional questions: Find the common aspect in the above three activities.</p> <p>What was the unique aspect that you felt in the activity?</p> <p>Why?</p> <p>The teacher distributes notes on the definition of creativity and asks students to relate the activity with the key points of it.</p> <p>Teacher connects the context with the content and introduces the topic 'Creativity'.</p>	<p>Students reflect on the activities based on the directional questions</p> <p>Students reply that each activity made them think differently and come with various ideas, alternatives, and possibilities.</p> <p>The uniqueness of the activities leads to generating different solutions.</p> <p>The activities were such that encouraged them to think in all dimensions.</p> <p>Each group reviews their activities and defines creativity in their own words in the context of the activity.</p>
<p>Explain and Elaborate: T2 (Abstract Conceptualization and Active experimentation)</p> <p>Content note</p> <p>Stages</p> <ul style="list-style-type: none"> ● Preparation ● Incubation ● Inspiration/illumination ● Verification 	<p>Teacher forms five groups and asks students to redesign the logo of 'Swiggy' for revamping the brand.</p> <p>Teacher asks students to reflect upon the process of redesigning the logo.</p> <p>Teacher distributes content notes and asks them to</p>	<p>Students in the group redesign the logo of 'Swiggy'.</p> <p>Students reflect upon their process of redesigning the logo.</p> <p>Students read the content note and in</p>

<p>Characteristics</p> <ul style="list-style-type: none"> ● Flexibility ● Fluency ● Originality ● Elaboration ● Synthesizing ● Breaking conventions <p>Stages:</p> <ul style="list-style-type: none"> ● Preparation: This is where one gathers information, defines the problem or project, and immerse in the subject matter. Researching, brainstorming, and collecting inspiration all fall under this stage. ● Incubation: after gathering information, one takes a step back and lets the subconscious mind work its magic. This is a time for relaxation and letting ideas simmer. ● Inspiration/Illumination: This is the ‘aha!’ moment when a new idea or solution pops into the head. It often feels like a sudden flash of insight but is built on the groundwork laid in preparation. ● Verification: Here, one takes to the newfound inspiration and turns it into reality. This involves refining the idea, testing its feasibility, and developing it into a final product. 	<p>connect with their activity.</p> <p>The teacher asks students to further reflect on the characteristics of the creativity process, wherever they imply these in redesigning the logo.</p>	<p>connection with the performed activities the stages of creativity.</p> <p>Students reflect on the redesigning process connecting characteristics with the steps that they unknowingly followed in the process.</p>
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<p>Characteristics of Creativity:</p> <ul style="list-style-type: none"> ● Flexibility: The ability to consider different approaches and perspectives. Not being stuck on one way of doing things. ● Fluency: Being able to generate a large number of ideas. This is the brainstorming stage where quantity often leads to quality. ● Originality: Coming up with ideas that are new and unique. Thinking outside the box. ● Elaboration: The ability to take an idea and develop it in detail. Fleshing out the concept and making it come to life ● Synthesising: Combining different ideas and concepts into something new. Finding connections and creating something unique from existing elements. ● Breaking conventions: Not being afraid to challenge the status quo and come up with unconventional solution 		
<p>Evaluation and application: T 2 Educational Implication of Creativity</p>	<p>The teacher asks students to plan their strategies to develop creativity in school students and present a roleplay on the planned strategy.</p>	<p>Students plan their strategies to develop creativity in school students and present a roleplay on the planned strategy in front of the class</p>

Experiential Learning Lesson Plan-2

Name: Dr.Malavika Ahlawat and Dr. Asha A.K.
School/College: The Lord's Universal College of Education
Subject - Educational Management
Std - B.Ed
Topic: Human Resource Management

Content Analysis

1. Theme/ Concept: Human Resource Management

2. Brief summary of the content:

Process/steps of Human Resource Management

Concept: Human Resource Management and its sub-concepts

3. Values: Soft skill-related values, Responsibility, Accountability, Justice, Innovation and Creativity, Soft skills like Leadership, Compassion etc.

4. Core elements: Inculcation of Scientific Temper

5. Methods and Strategies: Experiential Learning, Group activities, Constructivist

approach(5Es), Co-teaching

Co-teachers 1 and 2 (experts in the same content matter)

Roles of the teacher

Tr 1 Facilitating the understanding of the content matter

Tr 2 Dealing with the context

6. Learning Resources: chart of process of HRM, color pens, Canva slide, video, content note.

7. References: <https://youtu.be/bl9RZjF-538?t=99> Steps of the process of HRM

8. Learning Outcomes: At the end of the lesson, students will be able to...

- define the Human Resource in their own words.
- reflect on the process of Human Resource Management (HRM) after each activity.
- apply practical skills like role play, script writing etc.
- appreciate the strategic role of HRM in organizational success.
- develop a sense of ethical responsibility in HR practices.

Previous knowledge: Students are aware of the process of recruitment and also possess acting related skills

Planning for Teaching - Learning

Stages and Content points	Activities to facilitate learning	Students' Activities
ENGAGE:	Teacher 1 narrates the	Students listen to the
<p>Scenario The ABC, an educational institution, wants to hire a teacher for the new academic year. They have given the responsibility to Ms. Raavi who is specially appointed for this work.</p> <p>If you were in her place how would you carry this responsibility?</p>	<p>scenario. The teacher. asks questions on the scenario to develop a common understanding</p> <p>Why is Raavi appointed to the Institution?</p> <p>Teacher 2 asks directional questions...</p> <p>What steps will you take to hire the teachers?</p> <p>Teacher 2 divides students into 3 groups. Instruct groups to develop an action plan.</p> <p>The teacher 1 and 2 provide chart papers to prepare the plan.</p> <p>The teacher 1 and 2 supervise.</p>	<p>scenario attentively and answer the questions.</p> <p>Answer- For recruiting the teacher.</p> <p>Students form groups and discuss the scenario.</p> <p>Students prepare an action plan on the given chart paper based on their experience and present in the class.</p>

<p>EXPLORE: (Reflective observation) Process</p>	<p>Teacher 2 asks students to present an action plan in front of all students.</p> <p>Teacher 2 What designation would Raavi be given for her assigned work? Who can be termed as Human resources? Based on your experience with the activity, define HRM in your own words.</p>	<p>Each group shares their Action plan and justify every step of the process of recruitment that they generally are aware of</p> <p>After the presentation of each group, students express their views and suggestions to make each plan more refined.</p> <p>Students through discussion name it as HR manager.</p> <p>Teaching, Non-teaching staff</p> <p>Students discuss in groups and define HRM.</p>
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<p>Explain : (Abstract Conceptualization and Active experimentation)</p> <p>Meaning of HRM Human resources include total knowledge, skills, talents, and aptitudes as well as the values, attitudes, approaches, and beliefs of the individuals involved in the affairs of the organisation.</p> <p>Elaborate Process of Human Resource Management...</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> ● Planning and Work Design ● Job Analysis ● Recruitment ● Selection & Placement ● Orientation ● Training & Development ● Performance Appraisal ● Compensation & Benefits ● Collective Bargaining ● Negotiation ● Record Keeping ● Organisation development <p>Ethical ground to carry out the</p>	<p>Teacher 1 introduces the topic and answers the students queries if any</p> <p>Teacher 2 distributes the definition note to groups and refines it accordingly retaining their own paraphrasing terms.</p> <p>Teacher1 . distributes the chits having jumbled up responsibilities and asks them to arrange them logically to complete a part of the process</p> <p>Teachers connect the contextual work and introduce the process of Human Resource Management.</p> <p>The teacher 1 shows video https://youtu.be/bl9RZjF-538?t=99</p> <p>Teacher 2 asks students to reflect upon the process of HRM. on the basis of the ethical consideration and values required for effective</p>	<p>Students may ask a few queries for their clarity on the topic.</p> <p>Students after reading the definition received from the teacher verify their own worded definition for accuracy.</p> <p>Students in each group prepare the hierarchy using the given responsibilities and share it in the class.</p> <p>Other students are allowed to share their views and suggest a few corrections with justification.</p> <p>Students view the link and discuss the content note and make corrections in their earlier hierarchy that they designed. And present</p> <p>Students reflect upon the process of HRM with the help of video and concept notes.</p> <p>And also list out necessary qualities and values for effective dissemination of</p>
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<p>responsibilities for... Impartiality, transparency and safeguarding confidentiality.</p>	<p>ways of dealing with the Human resource</p>	<p>the responsibilities. Complete the Action plan including all the activities they carried out stepwise Each group presents the Action plan in the class for other students and tr. to reflect upon it for further refinement.</p>
<p>Evaluation and application:</p>	<p>The teacher 1 asks students to present an action plan in the form of role-play.</p>	<p>Students in groups discuss and prepare the script, assign the roles to the group members and present the role play in front of the class .</p>
<p>Assignment:</p>	<p>Visit a local institution and observe HR practices and write a report. Interview a HR professional to find out their role and experiences.</p>	

Experiential Learning Lesson Plan- 3

Name: Dr. Sunita Shah

Subject - Mathematics

Std - X

Topic: Probability

Content Analysis

1. Theme/ Concept: Probability

2. Brief summary of the content:

New term: Probability

New terms, concepts and examples: possibility, random experiment, outcome, equally likely outcomes, sample space, event

Problems: application problems based on the learned concepts

3. Values: Moral value - Discipline, Intellectual value, Saving

Core elements - Constitutional Obligation, Inculcation of scientific temper, Protection of the environment

4. Methods and Strategies: Experiential Learning, Group discussion, Constructivist approach

5. References:

[https://stats.libretexts.org/Bookshelves/Introductory_Statistics/Introductory_Statistics_\(Shafer_and_Zhang\)/03%3A_Basic_Concepts_of_Probability/3.01%3A_Sample_Spaces_Events_and_Their_Probabilities#:~:text=The%20sample%20space%20of%20a,outcomes%20add%20up%20to%201.](https://stats.libretexts.org/Bookshelves/Introductory_Statistics/Introductory_Statistics_(Shafer_and_Zhang)/03%3A_Basic_Concepts_of_Probability/3.01%3A_Sample_Spaces_Events_and_Their_Probabilities#:~:text=The%20sample%20space%20of%20a,outcomes%20add%20up%20to%201.)

6. Learning Resources(Instructional Material) - a box containing three paper pieces of different colours, coins, dices, concept notes etc.

7. Learning Outcomes: At the end of the lesson a student will be able to.....

- Name the terms involved in probability problems.
- Draw inferences about concepts of Possibility, Random Experiment, Outcome, Equally Likely Outcomes, Sample Space, Event.
- Give examples for the various terms from their daily life.
- Solve the given problem based on probability terms.
- Analyze the importance of following traffic rules, energy conservation.
- Frame problems on the terms involved in probability from their life.

8. Previous knowledge: learners had encountered many life situations which can be expressed as probability, application ability of fractions and sets .

9. Planning for Teaching - Learning:

Stages and Content Points	Activities to facilitate learning	Students' Activities
<p>Engage: (Concrete Experience)</p> <p>Examples: Possibility</p> <p>Possibilities: It is the total number of possible outcomes of an experiment. It is to be written in numbers. For example, the possibility of signal colors</p> <p>Value - discipline</p>	<p>The teacher asks students to make groups (five students in each group).</p> <p>The teacher distributes an experiment kit to each group. The experiment kit has a box containing only three small circular pieces of Green, Yellow and Red color papers resembling traffic signals.</p> <p>The teacher asks each group to take out one piece of paper from the box and note its color and repeat till the piece gets over.</p> <p>The teacher asks students to put the paper pieces back into the box and repeat the experiment two more times.</p> <p>What are the possible colors of paper pieces that you can get from the box?</p> <p>Is there any possibility of getting paper pieces other than Red, Yellow and Green? Give reasons to support your answer..</p>	<p>Students make groups.</p> <p>In group, they take out paper pieces one by one and note the paper colors as they pick out the paper.</p> <p>In groups, they repeat the experiment and note the paper colors as they pick out the paper.</p> <p>Students answer that the possible colors of papers to get out of the box are Red, Yellow and Green.</p>

	<p>Give one example of using these colours in our daily life.</p>	<p>Students reply that as the box has only these three color paper pieces therefore it has the possibility of getting any of these three color paper pieces.</p> <p>Students reply that they see use of these colours at 'traffic signals'.</p>
	<p>How many of you adhere to the traffic signal rules strictly?</p> <p>Do you think that is the right behavior? Why?</p> <p>The teacher appreciates them and states that we will proceed to the next experiment for which she asks students to take out one coin and toss the coin once and find the total number of possibilities of toss.</p> <p>The teacher asks students to toss two coins together and find the total number of possibilities i.e. outcomes.</p> <p>Teacher introduces the term Possibility and asks students to define it based on their experiential understanding.</p>	<p>Students reply that sometimes they do break to have fun or when they get late or when crowds do it.</p> <p>Students explain their view and arrive at the importance of adhering to the traffic rules.</p> <p>Students toss a coin once and tell a total of 2 possibilities ie either head or tail.</p> <p>Students experiment and infer that four possibilities exist in the experiment.</p>

		Students define possibility as the total number of possible outcomes of an experiment.
<p>Explain / Elaborate : (Abstract Conceptualization and Active experimentation)</p> <p>Elaboration:</p> <p>Random experiment: The experiment in which all possible results are known in advance but none of them can be predicted with certainty and there is equal possibility for each result is known as a 'Random experiment'.</p> <p>Biased experiments are those experiments where one can accurately predict the outcome due to fault in the experiment tools.</p> <p>Result of a random experiment is known as an 'Outcome'.</p> <p>Equally Likely Outcomes: It means that each possible outcome is equally likely to occur.</p>	<p>Teacher connects the context with content and introduces the topic (Probability) and clears students' queries regarding the content learnt so far (if any)</p> <p>Teacher asks groups to perform the following experiments and answer listed questions.</p> <p>Teacher provides two dice to each group where one of those is such that whenever thrown it will result in number 5 and the other dice is an unpredictable one.</p> <p>Experiment 1: Throw the given dice, 5 times each, and note their observations for both the dice.</p> <p>What is the difference in the outcome of both the dice?</p> <p>Find the concept from the content note that is reflected in the performed experiment.</p>	<p>Students may ask queries for better clarity.</p> <p>Students perform the experiment. Students discuss in groups and write answers of the listed questions. and present.</p> <p>With one dice, outcome can be any one sample point from the sample space.</p> <p>With the other dice the outcome is '5'.</p> <p>Students reflect that out of the two dice, one will result in random experiment and other one will result in bias experiment.</p>

<p>Event is a subset of the sample space. Events are generally denoted by capital letters A, B, C, D etc. For example, if two coins are tossed and A is the event</p>	<p>Tr asks students to reflect on the types of experiment performed by them. Experiment 2: Throw a dice 15</p>	<p>Students experiment and based on their observations write sample space ie $S = \{1,2,3,4,5,6\}$</p>
<p>of getting at least one tail, then the favorable outcomes are as follows. $A = \{TT, TH, HT\}$ The number of elements in the event A is denoted by $n(A)$. Here $n(A) = 3$.</p> <p>Solution : Suppose B_1, B_2, B_3 are three boys and G_1, G_2 are two girls. Out of these boys and girls, a sanitation committee of two members is to be formed. $S = \{B_1 B_2, B_1 B_3, B_2 B_3, B_1 G_1, B_1 G_2, B_2 G_1, B_2 G_2\}$</p>	<p>times, and write the sample space. Experiment 3: Throw three coins at once 15 times and find the number of possibilities of getting at least one head.</p> <ul style="list-style-type: none"> ● Write sample space. ● Write sample points. ● Write Event for the experiment when A: getting at least two heads ● B: getting at least one tail <p>Example - A sanitation committee of 2 members is to be formed from 3 boys and 2 girls. What could be the sample space 'S' and number of sample points $n(S)$. Also what could be the following events in set form and number of sample points in the event. (i) Condition for event A : at least one girl must be a member of the committee. (ii) Condition for event B : Committee must be of one boy and one girl.</p>	<p>Students perform the experiment. Students based on their observations answer the listed questions. $S = \{HHH, HHT, HTH, HTT, THH, THT, TTH, TTT\}$ $n(S) = 8$ $A = \{HHH, HHT, HTH, THH\}$ $n(A) = 4$ $B = \{HHT, HTH, HTT, TTH, THT, TTT\}$ $n(B) = 7$</p>

<p> $G1, B1, G2, B2, G1, B2, G2, B3, G1, B3, G2, G1, G2$ $\therefore n(S) = 10$ (i) Condition for event A is that at least one girl should be in the committee. \Rightarrow $A = \{B1, G1, B1, G2, B2, G1, B2, G2, B3, G1, B3, G2, G1, G2\}$ $\therefore n(A) = 7$ (ii) Condition for event B is that one boy and one girl should be there in the committee. \Rightarrow $B = \{B1, G1, B1, G2, B2, G1, B2, G2, B3, G1, B3, G2\}$ $\therefore n(B) = 6$ </p>		
<p> Application: (Active experimentation) Examples of Possibility Sample Space, Event Core element: Protection of Environment (energy conservation) </p>	<p>Teacher asks to find the possibility of a classroom's lights and fans remaining switched on even after dispersal of students of the class. Further the teacher discusses energy conservation.</p>	<p>Students find the possibility of a classroom's lights and fans remaining switched on even after dispersal of students of the class. Students analyze their role in energy conservation.</p>
<p> Evaluation and application: </p>	<p>Teacher asks to perform the following activity. Write the Possibility and Sample Space when three dice are thrown together and verify it by performing the experiment.</p>	<p>Students first write Possibility Sample Space using their understanding and later verify it with experiment.</p>

Assignment	Play a cricket match. Answer the following question Sample space for run in one ball Name the type of experiment Events A: No ball B: wide ball C: getting fours D: getting sixers E: Getting ducks	Students in group play a cricket match and answer the listed questions
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Experiential Learning Lesson Plan- 4

Name of the facilitator: Nusrat Anjum Siddiqui

Subject: Science

Topic: Metals and Non-Metals

Content Analysis

1. Theme/ Concept: Chemistry

2. Brief summary of the content:

Physical properties of metals and non-metals: luster, hardness, malleability, ductility, good conductor of heat and electricity, sonority

3. Values: Creativity

Core elements -

4. Methods and Strategies: Experiential Learning, Group discussion, 5E Constructivist approach

5. References:

<https://www.turito.com/learn/chemistry/physical-properties> (Properties of metals and non-metals — textual explanation)

<https://www.youtube.com/watch?v=AJbe5THaNUU> (Properties of metals and non-metals — visual explanation)

<https://www.youtube.com/watch?v=PHu8hQBtPcY> (Properties of metals and non-metals — visual explanation)

https://chem.libretexts.org/Courses/Mount_Royal_University/Chem_1201/Unit_2._Periodic_Properties_of_the_Elements/2.11%3A_Metals_Nonmetals_and_Metalloids Properties of metals and non-metals — textual explanation)

6. Learning Resources (Instructional Material) — Material Kit: articles of the iron, copper, aluminum, charcoal, air-filled small balloons, iodine, hammer, 5V cell, conducting wires, burners, candles, The Periodic Table Book: A visual encyclopedia of the elements

7. Learning Outcomes: At the end of the lesson a student will be able to.....

find characteristics of the given materials based on their observations

Classify the given materials based on identified characteristics.

Plan their strategy to observe the characteristics of a given material.

Fill the worksheet based on their observations.

Justify refinement of their classification of the material.

Connect content with the contextual activities.

Make mind map based on their understanding

Plan utility of the given materials based on the characteristics of the materials

Design a prototype of a car.

Select material to create a prototype of a car.

Brainstorm on the utility of material in light of its characteristics

Brainstorm on the alternate material for a utility.

Analyses the use of material during the process of production of the final product.

8. Previous knowledge: Students are using metals and non-metals in their daily life.

Content points/ Phases	Facilitator's input	Learner's activities
<p>Engage: (Concrete Experience) Game: 'Keen Observer and Smart Classifier' → First observe each sample material given in the material kit. Using your observation, classify the given materials into two groups.</p>	<p>Teacher asks students to form five groups.</p>	<p>Students form groups and collect their material kit.</p>

<p>Material Kit: A packet of samples for observation containing articles and small pieces of the Iron, Copper, Aluminum, Zinc, Phosphorus, Carbon, Graphite, Iodine and salt.</p> <p>Experimentation Apparatus: A packet containing apparatus (hammer, 5V cell, conducting wires, candles, beaker, test tube, thermometer, burner, matchbox.</p> <p>Characteristics</p> <ul style="list-style-type: none"> ● Shine ● Hard ● Weight ● Stretchabl ● Hammera ble ● Conducto r of heat ● Conducto r of electricity ● Loud 	<p>After giving clear instructions for the ‘Keen Observer and Smart Classifier’ game distribute the material kits to each group.</p> <p>Teacher asks students to play the game.</p> <p>Teacher informs students that she will announce the winner of the game at the end of the lesson.</p> <p>Teacher gives the experimentation apparatus kit and asks students to plan their strategy on how to test the listed characteristics of the given materials.</p> <p>Teacher asks students whether they want to change the classification of materials based on the new experiences.</p>	<p>Students play the ‘Keen Observer and Smart Classifier’ game where in groups they examine the given sample materials and note their observations, and also classify the given materials into two groups as per their experience and understanding.</p> <p>Students plan how to observe the listed characteristics for the given materials and put their plan into action. Further they note down their observations. Students discuss in their group and make changes in the classification if the group thinks it.</p>
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<p>sound generations</p>		
<p>Explore: (Reflective observation)</p> <p>Classification of material- Metal and Non-metal</p> <p>Definition Metal: Metals are lustrous, malleable, ductile, and good conductors of heat and electricity. Non-metal: Non-metals are very brittle, and cannot be rolled into wires or pounded into sheets.</p>	<p>Teacher asks students to reflect on the classification done by them and on the reasoning for changing the classification .</p> <p>Teacher connects content with the context and introduces the topic.</p> <p>The teacher asks students to use the characteristics of materials and defines metals and non-metals.</p>	<p>Students reflect on the classification of the materials and the justification for making changes in material classification.</p> <p>Students use characteristics of materials and define metal and non-metals in their words.</p>
<p>Explain (Abstract Conceptualization)</p>	<p>Teacher distributes the content note and asks students to find the technical terms used to represent the characteristics which they observed in earlier activities.</p>	<p>Students read the content note reflect on their observations and find technical terms for the observed characteristics. .</p>

<p>Content note</p> <p>Physical Properties of Metals: Metals are lustrous, malleable, ductile, good conductors of heat and electricity. Other properties include:</p> <p>State: Metals are solids at room temperature with the exception of mercury, which is liquid at room temperature (Gallium is liquid on hot days).</p> <p>Luster: Metals have the quality of reflecting light from its surface and can be polished e.g., gold, silver and copper.</p> <p>Malleability: Metals have the ability to withstand hammering and can be made into thin sheets known as foils (a sugar cube chunk of gold can be pounded into a thin sheet which will cover a football field).</p> <p>Ductility: Metals can be drawn into wires. 100 gm of silver can be drawn into a thin wire about 200 meters long.</p> <p>Hardness: All metals are hard except sodium and potassium, which are soft and can be cut with a knife.</p>	<p>Teacher motivates students to ask queries for better understanding.</p>	<p>Students ask their queries to the teacher to get clarification on the concepts for better understanding. .</p>
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<p>Conduction: Metals are good conductors because they have free electrons. Silver and copper are the two best conductors of heat and electricity. Lead is the poorest conductor of heat. Bismuth, mercury and iron are also poor conductors.</p> <p>Density: Metals have high density and are very heavy. Iridium and osmium have the highest densities whereas lithium has the lowest density.</p> <p>Melting and Boiling Points: Metals have high melting and boiling point. Tungsten has the highest melting point whereas silver has a low boiling point. Sodium and potassium have low melting points.</p> <p>Physical Properties of nonmetals:</p> <p>Physical State: Most of the non-metals exist in two of the three states of matter at room temperature: gasses (oxygen) and solids (carbon).</p> <p>Non-Malleable and Ductile: Non-metals are very brittle, and cannot be rolled into wires or pounded into sheets.</p> <p>Conduction: They are poor conductors of heat and electricity.</p> <p>Luster: These have no metallic luster and do not reflect light</p> <p>Conductivity: Poor conductors</p>		
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<p>of heat and electricity</p> <p>Melting and Boiling Points: The melting points of non-metals are generally lower than metals</p>		
<p>Elaborate: (Active experimentation)</p> <p>Utility comparison of metal and nonmetal: Properties of Copper and Graphite</p>	<p>The teacher asks students to estimate the utility of the given material and can perform experiments again for fine observations.</p> <p>Further, she asks them to compare metal and non-metal based on their utility.</p> <p>The teacher asks students to select a characteristic and brainstorm on the specific characteristics of materials and analyze three best alternative materials for the use.</p>	<p>Students in the group discuss the utility of copper and graphite and do experiments if required.</p> <p>Using their experiences, students compare between metal and non-metal. .</p> <p>Students brainstorm on the utility of the specific characteristics of materials and think of alternative materials for use</p>
<p>Evaluation and application:</p>	<p>The teacher asks students to make a mind map of the gained knowledge and display it in class.</p>	<p>Students make a mind map on the learnt concepts and display it in class.</p>
<p>Application-based assignment:</p>	<p>Select a material to design a car body and create a prototype of the car body. Prepare a leaflet to promote your car body design indicating benefits of the material used.</p>	<p>Students in groups select a material to design the car body and create its prototype. They prepare a leaflet to promote their car body design indicating benefits of the material used.</p>

Experiential Learning Lesson Plan- 5

Name of the facilitator: Dr. Malavika Ahlawat

Subject: Civics

Std. VIII

Topic: The Electoral Process

ANALYSIS:

Goal: To develop critical understanding of The Electoral Process

Content Analysis:

1 Theme : Awareness of the Electoral Process

2. Summary: The Electoral Process, elements of the voter ID, process of setting up a polling station.

3 Values: Respect, kindness, gratefulness, liberty, equality, appreciation of India's Constitution.

4 Core element: Constitutional Obligations

5 Method strategies: Experiential Learning, 5E model of constructivism, Discussion, teamwork, research.

6 References: <https://youtu.be/-ucLifzB3HM>

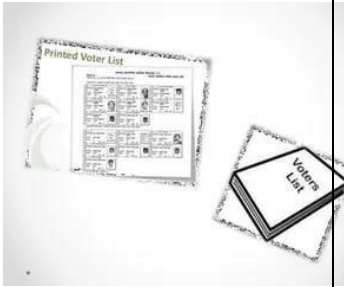
7 Learning Outcomes: The learner will be able to ...


- state the definition of Democratic Elections.
- articulate the need for Elections in a country.
- explain the need for an Electoral Process.
- describe the process of Election.
- appreciate the importance of participation in democratic systems.
- reflect upon the importance of voting.

Previous Knowledge: students are aware of the electoral process.

Content points/ Phases	Facilitator's input	Learner's activities
<p>Phases of Constructivism:</p> <p>1. Engage:</p> <ul style="list-style-type: none"> ● democratic elections <p>Mr. Patil, the dedicated teacher of Lord's High School's 10th B class, faces a dilemma. He needs a class representative, a student leader who can collaborate with him on the decisions about class activities and act as a bridge between him and the students. He has chosen Raju, but there's a catch - Raju isn't known for his leadership skills.</p>	<p>Teacher. narrates the case to the students and asks questions to ensure a common understanding of the case.</p> <p>What did Mr. Patil want in the classroom?</p> <p>Why?</p> <p>Why did Mr. Patil disapprove of Raju?</p>	<p>Students listen to the scenario carefully.</p> <p>Students answer the questions.</p>

<p>2. Explore</p> <p>Activity Roleplay Assume that you are Mr. Patil and other group members are students of the class.</p> <p>The electoral process meaning and need</p>	<p>Tr. explains the activity to be carried out in the group and gives following instructions with directional questions</p> <p>Decide your roles with mutual consensus. Discuss the strategy of selecting the class representative. Enact your action plan in the class</p> <p>Teacher. distributes the concept note to each group and asks groups to use it as a reference to decide the strategy.</p> <p>The process of choosing your representative was similar to a democratic election that happens in our country.</p> <p>Elections allow us to choose our government and the future we want to have. In this way the teacher encourages them to actively observe, ask questions, and interact with each other.</p> <p>So today we are going to learn the steps of the electoral process in India.</p>	<p>Role play activity Students in groups assign roles of members in the group. They read the content notes carefully and enact the procedure in the classroom.</p> <p>Reflection All the groups reflect upon the activity and their experience and also share their feelings about the responsibility and sincerity with unbiased decision to select the leader.</p> <p>Students answer- It helps to avoid chaos and leads to effective decision-making. Elections give everyone a voice and allow their interests to be represented.</p> <p>Students listen carefully</p>
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<p>3. Explain</p> <p>Cognitive construction of knowledge</p> <p>Process of Election</p> <p>a. Establishment of voters.</p>  <p>b. Nomination of candidates and scrutiny of their nomination forms.</p> <p>c. Election campaign</p> <p>The Election Commission has the</p>	<p>The teacher discusses the election process by conducting mock elections for the class president. Ensures students experience the entire process from nomination to campaigning to voting.</p> <p>Preparation: The teacher divides students into different political parties or groups.</p> <ul style="list-style-type: none"> ● The teacher assigns roles to the students such as candidates, campaign managers, speech writers, media, polling officer, election commissioners and voters. ● She asks students to create a schedule for the election process, including campaign periods, and voting day. <p>The teacher asks students to nominate</p> <p>Campaigning: The teacher asks</p>	<p>Students clarify their doubts regarding the new concept.</p> <p>Students follow the instructions carefully.</p> <p>Students follow the instructions carefully</p> <p>Students give their nominations.</p> <p>The students create symbols, posters, write speeches, and use social media to promote their candidates.</p> <p>Students prepare the voter list with active participation and also prepare the voter ID</p>
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<p>authority to issue identity cards to the voters.</p>	<p>students to develop campaign strategies.</p> <p>The teacher asks students to prepare the voter's list. The teacher distributes the voter ID</p>	
<p>4. Elaborate</p> <p>d. Actual voting</p>  <p>e. Counting of votes</p> <p>f. Results of elections Resolution of disputes regarding elections.</p>	<p>The teacher shows the video of Process of Voting https://youtu.be/XGJQNKFYqYI</p> <ul style="list-style-type: none"> ● The teacher asks students to set up a polling station with ballots, ballot boxes, and voting booths. ● The teacher asks students to vote. ● The teacher asks other students to tally the results. ● The Teacher announces the winners and discusses the outcomes. ● This is the process of democratic representation. 	<p>The students watch the video carefully.</p> <p>The students arrange ballot boxes and create a dummy voting booth.</p> <p>The students vote for their candidates.</p> <p>Students count the votes</p>

<p>5. Evaluate</p> <p>Learning outcomes</p>	<p>The teacher categorizes students' responses and students identify them as passive and active participation.</p> <p>The teacher directs their attention through questions towards specific aspects of their experiences. (Large Group)</p> <p>The teacher asks the following questions.</p> <p>What is the need for the electoral process? What challenges did you face? How does it relate to real-world elections?</p>	<p>Students get together and share their experiences in the class.</p>
<p>Conclusion and recap: The students learned about the electoral process, preparing the voter ID, and setting up a polling station.</p>		
<p>Assignment: Meet a local politician, election official, or activist to talk about their experiences and the importance of the electoral process.</p>		

Experiential Learning Lesson Plan- 6

Name of the facilitator: Shalaka R. Mohare

Subject: Science

Std. 8th State Board

Topic: Introduction to Acid and Base

Content Analysis-

1. Theme: Chemistry

2. Concept:: Acid, base, indicator

Content Summary:

- Meaning of the terms acid, base, and indicator,
- Properties of acidic and basic substances
- Identifying acidic and basic substances

3. Value/ Core elements: Protection of the environment

4. Methods and Strategies: Experiential Learning, Group activities, Constructivist approach

5. References:

<https://youtu.be/Bnj2lpDOZ3w>

<https://www.youtube.com/watch?v=VwKdy77bsoU>

<https://byjus.com/chemistry/ph-of-acids-and-bases/>

<https://byjus.com/chemistry/acids-bases-salts/>

<https://www.learncbse.in/acids-bases-and-salts-class-10-notes/>

<https://www.youtube.com/watch?v=hcCPUA5ln8>

6. Learning Resources (Instructional Material) -

- Various household acids, bases and neutrals (e.g., lemon juice, vinegar, baking soda, detergent)
- Red litmus paper, blue litmus paper, turmeric powder
- Test tubes or small clear containers
- Droppers etc

7. Learning Outcomes: At the end of the lesson a student will be able to.....

- identify acidic basic and neutral substances while playing the game.
- classify the given substances based on their taste.
- define .acid, based on their own words.
- experiment to check the properties of the given substances
- identifies the properties of the acids and bases.
- connect context with the content.
- find the nature of the given substances based on their observation.
- prepare a mind map on their understanding of acids and bases.
- Estimate the utility of the given substances based on the identification of properties

8. Previous knowledge: Students know the tastes of substances and terms like acid and base

9. Planning for Teaching - Learning:

Content points/ Phases	Facilitator's input	Learner's activities
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<p>Engage Concrete Experience</p> <p>Examples- Edible items Acidic items: Lime, Tamarind, Tomato, Ambadi, Raw Mango, Kokum, karvanda, Star fruit, Grapes, Strawberry</p> <p>Basic items: Neem, Methi, Bitter gourd, Cocoa, Citrus peel, Coffee, Broccoli, Turmeric, Brussels sprouts, Artichoke</p> <p>Neutral items: water, table salt, sugar solution and cooking oil</p>	<p>The teacher tells students to form two groups.</p> <p>The teacher gives instructions for the 'Blindfold and Identify Me' game.</p> <ul style="list-style-type: none"> ● Each group will take one set of the material kept on the main desk. ● One member will be blindfolded and the members from the other group will make him/her taste each edible item and note down the given responses. ● The group member who identifies the maximum number of items correctly will be declared as the winner group. <p>The teacher asks group members to play 'Blindfold and identify me'.</p> <p>The teacher announces the winning group and asks every group member to taste the given items.</p> <p>The teacher gives a bunch of blue and red litmus papers and asks the students to first extract juice from each given item in the provided experimental dishes and put blue and red litmus paper in the extracted juice.</p> <p>The teacher gives an experimental set for testing electricity flow and asks students to test the flow of electricity in sour substances, bitter substances, and neutral</p>	<p>Students form group</p> <p>Students attentively listen to the instructions</p> <p>Students play the 'Blindfold and Identify Me' game.</p> <p>Students cheer the winning group and everyone from the group tastes the given items.</p> <p>Students collect litmus papers and experimental dishes.</p> <p>Students extract juice from the given items put litmus papers in the juice and note down their observations.</p>
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	substances.	Students take the experiment set and check the flow of electricity in the given substances.
<p>Explore Reflective Observation</p> <p>Classification: acid, base, and neutral substances</p> <p>Properties: taste, flow of electricity, litmus paper colour change</p>	The teacher asks students to reflect on their experience and classify the given items.	<p>Students reflect on their experiences and classify the given items into</p> <ul style="list-style-type: none"> ● sour and bitter items ● items turning red litmus into blue ● items turning blue litmus into red ● litmus paper remains neutral to the items ● Substances that help or do not help the flow of electricity

<p>Explain Abstract Conceptualisation</p> <p>Acids: Acids are sour, turn blue litmus red, and dissolve in water to release H⁺ ions. Examples: Sulphuric acid (H₂SO₄), Acetic Acid (CH₃COOH), Nitric Acid (HNO₃) etc. Properties of Acids:</p> <ul style="list-style-type: none"> ● Acids have a sour taste. ● Turns blue litmus red. ● Acid solution conducts electricity. ● Release H⁺ ions in aqueous solution. <p>Types of Acids: Acids are divided into two types based on their occurrence i.e., Natural acids and Mineral acids.</p> <p>(i) Natural Acids: Acids that are obtained from natural sources are called Natural Acids or Organic Acids. Example Citric acid, Lactic acid</p> <p>(ii) Mineral Acids: Acids that are prepared from minerals are known as Mineral Acids Example; Inorganic acids, man-made acids or synthetic acids are also known as Mineral Acids.</p> <p>Bases: Bases are bitter, have a soapy touch, turn red litmus blue, and give hydroxide ions (OH⁻) in an aqueous solution. Examples: Sodium hydroxide</p>	<p>The teacher appreciates them and introduces the topic by connecting with the context.</p> <p>The teacher distributes the content note and asks them to go through it.</p> <p>The teacher asks students to relate their experiences with the content and motivates them to ask questions if they have queries.</p>	<p>Students go through the content note and relate their experiences with the note matter.</p> <p>Students ask questions for better understanding.</p>
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<p>(caustic soda) — NaOH Calcium hydroxide — Ca(OH)₂ Potassium hydroxide (caustic potash) — (KOH)</p> <p>Properties of Bases:</p> <ul style="list-style-type: none"> ● Have a bitter taste. ● Soapy to touch. ● Turn red litmus blue. ● Conducts electricity in solution. ● Release OH[—] ions in an Aqueous Solution <p>Neutral substances: The neutral substances are neither acidic nor basic. The most well-known neutral substances are water, table salt, sugar solution, and cooking oil.</p> <p>Indicators: Indicators are substances that indicate the acidic or basic nature of the solution by the color change. Indicators obtained from natural sources are called Natural Indicators. Litmus, turmeric, red cabbage, China rose, etc., are some common natural indicators used widely to show the acidic or basic character of substances.</p> <p>Litmus: Litmus is obtained from lichens. The solution of litmus is purple. Litmus paper comes in two colors- blue and red.</p> <ul style="list-style-type: none"> → An acid turns blue litmus paper red. → A base turns red litmus Pale blue 		
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<p>Elaborate Active experimentation Use of acids</p> <ul style="list-style-type: none"> ● Acids are used in the production of chemical fertilizers. ● Acids are used in the production of explosives, oil purification, medicines, dyes, and paints. ● Hydrochloric acid is used for the preparation of different types of chloride salts. ● Dil. H₂SO₄ acid is used in the batteries. (electric cell) ● Dil. HCl is used for sterilization of water. ● Acid is used for making of white paper from wood pulp <ul style="list-style-type: none"> ● Bases are used to produce soaps, toothpaste, paper, rayon, and other products. ● It is commonly found in the baking industry. ● It is found in bleaching powder and is used in cleaning. It is employed in the removal of Sulphur dioxide. ● It is used in the production of whitewash. It's widely used in the detergent industry. ● NH₄OH is a solvent that is used to remove grease stains from clothing. ● Bases are a manufacturer of chalk and oven cleaners. 	<p>The teacher asks students to form five groups. The teacher gives a substance to each group and asks them to find the nature of the given substance.</p> <p>The teacher asks students to reflect on their experiences and brainstorm on the probable utility of acids and bases.</p> <p>The teacher asks students where they dump the used electric cells.</p> <p>The teacher informs students about the segregation of waste, a step to protect the environment.</p>	<p>Students form groups.</p> <p>Students find the properties of the given substance by observing it and experimenting with it. Based on the property list classifies substances into acid or base or neutral.</p> <p>Students reflect on their experiences and brainstorm on the probable utility of acids and bases.</p> <p>Students reply that they dump the used electric cells in their household dustbins.</p> <p>Students attentively listen to the information about the segregation of waste, a step to protect the environment.</p>
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Evaluation	The teacher asks students to prepare a mind map of their understanding.	Students in the group prepare a mind map of the learned content.
Assignment	Collect substances from your surroundings, find the nature of the collected substances (acidic, basic or neutral), and write a report on it.	Students in the group collect substances from their surroundings, find the nature of the collected substances, and write a report on it.

Lesson Plan

Section II



Scenario-Based Learning

Scenario Based Learning

Dr. Veena Deshmukh
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Scenario

A scenario is a sequence of events and the context within which these occur. - A Story Line Stories portraying plausible futures, designed to systematically explore, create, and test possible and/or desirable future conditions.

A tool to anticipate and consider the future.

Scenarios can be real or contrived.

Scenario Based learning

A model of situated learning (operationalization)

Prescribes the tasks learners and teachers will do to support and guide the learning process for the learners.

A pedagogical design where the learning scenarios are designed for situating and contextualising all T-L activities.

Usually drawn from real-life situations.

Enables the learner to reach a satisfactory outcome.

Scenario-Based Learning SBL is based on

- Active learning
- Constructivist learning
- Role- based learning
- Making it Meaningful
- Experiential learning
- Contextual learning

SBL can be used

- For any kind of content
- At any level of education and training
- Via any mode of delivery
- It is especially suited for Practice Based Discipline Areas. (Naidu 2006).

Rationale for SBL

- Theoretical Base
- Concept of situated cognition:
- “Knowledge cannot be developed and fully understood independent of its context.” (Kindley, 2002)
- “High quality of pedagogical design is possible by engaging the learner in the learning process.” (Schank, et.al 1994)

Key features of SBL

- Takes the form of a storyline
- Learners assume a key role
- The Role is from a real-life situation
- Learning by doing
- Problem solving within realistic settings
- Authentic assessment tasks
- Scaffolding of learning activities through materials & resources
- It is inductive, learner- centred, and practical, tending towards active learning.
- The focus is on applied knowledge.
- It is more realistic and fluid in terms of structure.
- Uses different forms of media, such as text, audio, visual graphics, animations, etc.
- The learner can relate to the scenarios/situations, so the learning is more holistic.
- Assessments are fun and provide opportunities to explore for the learner.

To teach students-making and critical thinking in situations nearby-a decision needs to be made now that will affect other events later there are several paths to take, with no single correct solution a task is complex and requires thorough analysis and problem- solving a student wants to explore different outcomes of a global issue

Development of SBL

Identification	Selection of Element	Development
<ul style="list-style-type: none"> ● Key competencies ● Learning outcomes ● Key events in the life of the learner ● Main steps or processes 	<ul style="list-style-type: none"> ● People ● Setting ● Challenge ● Feedback 	<ul style="list-style-type: none"> ● Actual Scenario ● Learning Tasks ● Assessment ● Activities ● Feedback Tool (Assessment Rubric)

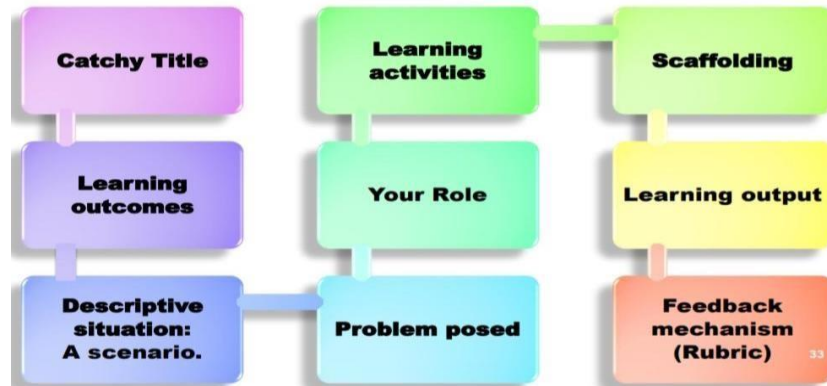
Elements in a Scenario

People	Setting	Challenge	Feedback
Characters in the Scenario Learners assume the role	Place where it is happening Context behind the task to be performed	A real- world challenge to be presented as a choice an action	The learner experiences the consequence (or feedback) of the choice or action.

Building the Scenario

- Fun to plan and execute
- Unlimited creativity & exploration
- State of flow
- Possibilities of number of different routes

Components of SBL



Types of Scenario Based Learning

Linear SBL:

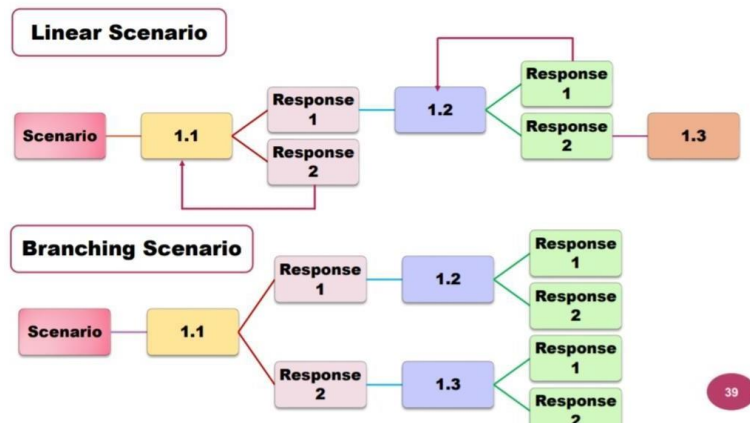
Selecting the right or wrong answer
(feedback)

Branched SBL

For complete ideas to explore
Choices can lead to different outcomes

Looping SBL

Mixed of linear & branching scenarios



Scenario-based learning cannot replace real-world experience. However, it can help students understand the complexities that are involved in decision-making and analysis of real-world problems thereby helping them to prepare for their future roles in life.

Scenario Based Learning

Lesson Plan- 7

Name of the facilitator: Dr. Amit Kumar

Institute: R.B.S. College of Education, Rewari, Haryana

Subject: Science

Std. VII (NCERT)

Topic: Water management

Theme: Water

Brief summary of the content

- Water management
- Water conservation
- Sustainable water use practices

Values: Water conservation

Core Element: Protection of the environment

Method and Strategies: Scenario-based constructive approach

References:

<https://www.pw.live/chapter-water/water-management>

<https://www.youtube.com/watch?v=AVUIH7wBu3I>

<https://www.youtube.com/watch?v=GsnVrF9UEAQ&t=19s>

<https://www.youtube.com/watch?v=ALafNmKrfom>

https://www.youtube.com/watch?v=9J1_tuKW7-g

<https://www.santander.com/en/stories/saving-water-useful-and-environmentally-friendly-tips>

Learning Resources (Instructional Material) -

Learning Outcomes: The learner will be able to.....

- Discuss the importance of water management.
- Explore the ways for water conservation.
- Connect scenario context with the content.
- Suggest ways of sustainable water use practices.

- Analyses their water use behavior concerning sustainable water use practices.
- Prepare role play on sustainable water use practices.
- Prepare posters on sustainable water use practices.
- Display the prepared posters on sustainable water use practices in their classroom/community.

Previous knowledge: Students have read/ experienced/ seen water-related problems in their daily life.

Planning for Teaching - Learning:

Content points /phases	Facilitator's input	Learner's activities :
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<p>Phases of Constructivism:</p> <p>1. Engage:</p> <p>A scenario (context)</p> <p>Vipin was very happy to spend his summer vacation at his maternal uncle Mr Ravish's place which was in a village in Rajasthan. He was longing to enjoy the village life. His uncle used to tell stories of a village that he always cherished. He along with his mother after a long gap were visiting the place. When they reached, he was told that his uncle had gone to a Panchayat meeting who returned home very late but warmly met Vipin. When asked about his meeting Mr. Ravish told him that recently Villagers are facing a crucial issue on water scarcity and requested all the family members to use water sparingly.</p> <p>Vipin inspected the tanks at home and found very limited water available. He observed that some women outside were busy making rounds to fetch water from a far-off pond. He was pained by their mental and physical efforts just to satisfy the family's need for water..</p> <p>Vipin wanted to help his uncle in resolving the</p>	<p>The teacher presents the scenario using PPT. The teacher asks the following questions to ensure a common understanding of the scenario</p> <ul style="list-style-type: none"> • What is the problem here? • What instructions were given to the family members after the meeting with Panchayat members? • What made Vipin sad? 	<p>Students attentively view the PPT and answer the questions asked to get better clarity on the case.</p>
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<p>issue.</p>		
<p>Explore: Problem posed If you were Vipin, how would you solve this problem? Content points Definition of water management</p>	<p>The teacher presents the problem to students and asks the following directional questions to work on the problem in groups.</p> <p>The teacher distributes the content link (https://youtu.be/AVUIH7wBu3I?si=ZuYDIDE9VEA4uXln) and asks them to go through it.</p> <p>What must have been the sources of water in the village in Rajasthan?</p> <p>List the problems arising due to scarcity of water. Analyze the water usage behavior of villagers.</p> <p>Find suitable strategies for water conservation</p> <p>How would Vipin contribute to the drive for water conservation?</p>	<p>They view the YouTube link.</p> <p>Students perform the following actions:</p> <p>Make a list of the sources of water in the village.</p> <p>Identify the water usage in the village.</p> <p>Analyses the data on the water usage behavior of the villagers.</p> <p>List suitable strategies for water conservation.</p> <p>As a young boy, Vipin’s possible contribution is discussed and listed. Each group presents the responses in the classroom</p>

<p>3. Explanation: Cognitive construction of knowledge.</p> <p>Content note</p> <p>Water management is preventing waste of water, using water carefully, and recharging groundwater.</p> <p>Water management can be done by:- Repairing leaking pipes and taps, not wasting water while brushing teeth, shaving, bathing, washing clothes and doing other activities. Rainwater harvesting. By drip irrigation of plants.</p> <p>Water conservation: Water conservation focuses on sustainably managing the natural resources of freshwater, protecting the hydrosphere, and meeting current and future human demand. This also includes efficient sustainable water use practices to reduce unnecessary water usage.</p> <p>Rainwater harvesting: One way of increasing the availability of water is to collect rainwater and store it</p>	<p>The teacher connects the case with the content topic and introduces the name as Water management. She distributes content notes and asks students to discuss and write their strategy to solve the scenario problem.</p>	<p>Students get together and present the cause-effect of the problem.</p> <p>Students discuss and write their probable solutions for the problem.</p>
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<p>for later use. Collecting rainwater in this way is called rainwater harvesting.</p> <p>The basic idea behind rainwater harvesting is “Catch water where it falls”.</p> <p>Rooftop rainwater harvesting:</p> <p>In this system, the rainwater is collected from the rooftop to a storage tank, through pipes.</p> <p>Running water collection: allow water to go into the ground directly from the roadside drains that collect rainwater</p> <p>Sustainable water use practices: Water sustainability means the maintenance and availability of clean water that can continue to be available to future generations for consumption, agricultural processes, and biodiversity.</p> <p>Some of the ways</p> <p>Check leaks</p> <ul style="list-style-type: none"> • Turn off the water while brushing teeth or similar activity • Shorter showers • Choose efficient electrical appliances • Cover plants or garden for less evaporation • Use the toilet 		
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<p>responsibly</p> <ul style="list-style-type: none"> • Use a water-saving device • Use of recycled water • Avoid playing with water etc 		
<p>4. Elaboration: Application of new knowledge Sustainable water use practices</p>	<p>The teacher asks students to analyze their water use habits and prepare a role play to improve or enhance their water use habits into sustainable water use practices.</p>	<p>Students in groups analyze their habits and present a role play on how to turn their water use practices into sustainable water use practices.</p>
<p>EVALUATE: Learning outcomes</p> <p>ApplicationTesting application of learned knowledge</p>	<p>Teacher: asks — What are the ways through which you as aware citizens can contribute to water management? The teacher asks students to design the strategies for a sustainable water management plan for their home, village, and town.</p> <p>The teacher asks students to present their ideas using a mind map and motivates other groups to ask questions and queries.</p>	<p>Students answer and discuss the importance of creating awareness among people.</p> <p>Students in groups design their water management plan. Students discuss in groups and present their ideas using a mind map.</p> <p>They ask questions to each other.</p>

Assignment	Prepare posters on sustainable water use practices and display them in your classroom/ community.	Students prepare posters on sustainable water use practices and display them in their classroom/ community.
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Scenario Based Learning Lesson Plan-8

Name of the facilitator: Afrin Khan
Class: 10th - CBSE
Subject: Social Science (Geography)
Chapter: Manufacturing Industries
Duration: 30 mins

Unit Summary/ Concept Map:

Meaning of water pollution
Causes of water pollution
Effects of water pollution
Suggestions to reduce Industrial pollution of freshwater

Previous Knowledge:

Basic knowledge of Water pollution.
Familiar with the problem presented

Content Analysis:

Concepts: Water Pollution

Core element: Protection of the environment

Values: Environmental cleanliness

Instructional strategy:

Problem-based scenario (Students have to investigate a problem, make decisions, use logical reasoning, and think critically), 5E model of constructivism, Discussion, Teamwork, Research

Reference:

https://static.zollege.in/public/college_data/images/entrance/sample_paper/168846319510-Geography-NCERT-Chapter-6.pdf

Learning outcomes:

The learner will be able to.....

Define water pollution.

List the Industrial effluents which are discharges from various industries.

Explain the concept of water pollution.

Analyze the elements that cause water pollution.

Explore the ways to find the solution to water pollution.

Reflect upon the importance of fresh water.

Previous Knowledge: Students are aware of the reasons and effects of water pollution.

Planning for Teaching and Learning Activities:

Content points /phases	Activities to facilitate learning	Learner's activities
<p>Phases of Constructivism:</p> <p>1. Engage:</p> <p>A scenario (context)</p> <p>The Scenario - Social worker Ruchi visited her native place Kasol. When she moved around, she remembered her childhood days when this village was beautiful. The river of Kasol was once known for its crystal-clear waters, where fish danced gracefully beneath the shimmering sunlight.</p> <p>But now the situation is different. the birds that once danced gracefully above the water now lay lifeless on its banks. The once lush vegetation along the riverbanks disappeared.</p>	<p>The teacher presents a scenario on PPT asks students to read the scenario and asks the following questions to ensure a common understanding of the issue.</p>	<p>Careful reading of the scenario</p> <p>Students respond to the questions</p>

<p>She saw that the land surrounding the river was dotted with factories such as paper mills, pulp factories, and chemical plant.</p> <p>Exploration</p> <p>Problem Posed:</p> <p>If you are Ruchi, how would you resolve the problem?</p> <p>Content note</p> <p>Defining the concepts of Water pollution due to industries</p>	<p>What was the difference Ruchi found in the surroundings of the village Kasol as compared to her childhood days?</p> <p>The teacher forms small groups of students. The content note is distributed to them</p> <p>Learning activities:</p> <p>Read the note given carefully and discuss the issue with its reference to answer the following question.</p>	<p>After viewing the scenario students discuss the questions</p>
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<p>Meaning: Water pollution is the release of substances into bodies of water that make water unsafe for human use and disrupt aquatic ecosystems.</p> <p>Cause of water pollution Organic and inorganic industrial wastes and effluents are discharged into rivers.</p> <p>Reduction of Industrial pollution from freshwater (i) using water through processing it for reusing and recycling in two or more successive stages (ii) harvesting of rainwater to meet water requirements (iii) treating water and effluents before releasing them in rivers and ponds.</p>	<p>What is the problem? What is the reason for water pollution? If you were Ruchi, how would you take help from the residents of Kasol? How can the residents of Kasol resolve the problem?</p> <p>A PPT on the present situation of river water.</p> <p>https://youtu.be/kaHmxZhea3M</p> <p>https://youtu.be/eHCalvPN2rY</p>	<p>Students in groups discuss the scenario and share their experiences with similar issues.</p> <p>Every group read and discuss the content note provided by the teacher</p> <p>They view the PPT and the YouTube link and identify the problem and causes.</p> <p>Students then make an action plan that would include the answers to the directional questions asked and present to the larger group</p>
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<p>Treatment of industrial effluents can be done in three phases</p> <p>(a) Primary treatment by mechanical means. This involves screening, grinding, flocculation and sedimentation.</p> <p>(b) Secondary treatment by biological process</p> <p>(c) Tertiary treatment by biological, chemical, and physical processes. This involves recycling wastewater.</p> <p>Measures taken by Government bodies</p> <p><i>(Contribution of the citizens</i></p> <p><i>(to be written in detail as the learning points that can help students explore the situation and find a solution.)</i></p>		
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<p>3. Explain: (Cognitive construction of knowledge) Industrial effluents are discharges from various industries, and various organic pollutants have been found in different water resources, such as pesticides, fertilizers, hydrocarbons,phenols, plasticizers,biphenyls, detergents,oils,greases, pharmaceuticals, etc.</p>	<p>The teacher links the content to the context and introduces the topic. The teacher distributes another content note from the topic and asks the following questions to be discussed in each group</p> <p>Q: What are the common things that you identified?</p> <p>Q. What are the organic and inorganic industrial wastes that are discharged into rivers?</p> <p>Q: What are the effects of organic and inorganic industrial wastes discharged into rivers?</p> <p>Q: As the residence of Kasol, what should you do?</p> <p>Q How can the industrial pollution of fresh water be reduced?</p> <p>Teacher. assigns the following activities among the group members: Explore the areas where factories release their waste into the water. The time limit is 7 days The teacher suggests the following resources</p> <p>-Surfing through YouTube to</p>	<p>Students link the scenario again with the content. They discuss in a large group and identify the right answer to the questions asked.</p> <p>Students apply their experiences while dealing with the context and establish a connection with the content by way of defining the concepts and ways to help the residents of Kasol.</p> <p>Assumptions drawn: Many people and the environment in Kasol must be suffering from the problem due to water pollution.</p> <p>Students suggest the following measures:</p> <ul style="list-style-type: none"> -Create awareness among people -Active participation in waste management -Helping Local Body Government. <p>Students in groups surf</p>
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<p>4. Elaborate: (Application of new knowledge)</p>	<p>identify the causes of river pollution. -Collecting newspaper clippings etc.</p>	<p>through NET, survey the nearby area, analyze the Newspaper for news regarding water pollution and concerns, and present the outcomes in the language of the content learned.</p>
<p>5 Evaluate: Learning outcomes Application Self, peer, tutor evaluation Testing application of learned knowledge</p>	<p>Q. What are the ways through which you as citizens can help people where water is polluted due to industries?</p> <p>Based on students' responses, the teacher assigns the Role play activity on the following directional question.</p> <p>Q: What would be the impact of people's activity on the environment</p>	<p>Based on the experiential learning, students respond</p> <p>Students discuss and role-play their ideas.</p>

Assignment	Visit nearby local water bodies (rivers, lakes, ponds, etc.)and write a letter to the ward office responsible for that area.	(Field activity) Students in a given time limit complete the assignment and present the task outcome in the class
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Scenario Based Learning Lesson Plan- 9

Name of the facilitator: Dr. Geeta Rani & Dr. Radhey Shyam

Institute: Gaur Brahman College of Education, Rohtak
Government Boys Sr. Secondary School, Amalwas, Delhi

Subject: Social Science

Std: VII

Topic: Our Environment: Air Pollution

ANALYSIS:

Goal:

- To develop a comprehensive understanding of the Environment.
- To create awareness of the interrelation between humans and the natural world.

Content Analysis:

Concept of Air pollution, pollutants causing Air pollution, effect & control measures of Air pollution

Learning Objectives:

Students will able to:

- Define Air pollution
- Identify the pollutants that cause Air pollution.
- Analyze the effects of Air pollution on biotic and abiotic factors of the surrounding environment
- Analyze the intensity of Air pollution in the context of the case presented.
- Suggest the measures to control Air pollution in the given scenario.
- Suggests precautionary measures for a sustainable environment.

Values: Sensitivity towards environment.

Core Element: Environment protection

Instructional Strategy Design:

Constructivist Approach with Scenario-based Learning

References:

NCERT. (2019). *Social Science Our Environment: Textbook in geography for class VII*. National Council of Educational Research and Training.

<https://www.youtube.com/watch?v=NzM2ejOw-08>

https://images.topperlearning.com/topper/revisionnotes/4154_Topper_21_130_2_1_2760_Our_Environment_up201609071500_1473240659_662_1.pdf?v=0.0.1

Follow-through activity: Presentation of the outcomes of the learning activities in the form of question-answer and application of learning through any activity on the point of Environmental problem and its solution.

Content points/ phases	Facilitator's input	Learner's Activities
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<p>Phases of Constructivism:</p> <p>1. Engage: A scenario (context)</p> <p>Maya was full of excitement and anticipation when she returned to school after a long summer break.</p> <p>She looked forward to meeting her friends after a long gap and also visiting the garden that existed in the vicinity of the school.</p> <p>However, she noticed a dramatic change in the familiar pathway to the school gate as she approached it. A large construction site had replaced its once flourishing garden.</p> <p>Maya was delighted to meet her friends. During their chat she also inquired about the change and the construction work. Some of her friends excitedly said that we are getting a shopping mall very soon. They seemed happy about the availability of all the required commodities under one roof.</p> <p>However, few of them were regretting the loss of the garden where they used to get the opportunity to spend good time with each other The school work started and</p>	<p>The teacher presents the scenario on the multimedia and asks the following questions to ensure a common understanding of the scenario by all.</p> <p>What change in the pathway did Maya notice?</p> <p>What were the views of her friends about the change that has taken place?</p> <p>What was the common concern of all the teachers?</p> <p>What was the decision that was taken during the meeting with the principal?</p>	<p>Students carefully view the presentation and answer the questions asked by the teacher.</p> <p>Students answer the questions</p> <p>In place of the Garden, the Mall was being constructed.</p> <p>Differencing views</p> <p>Increasing health problems among students due to the construction work causing air pollution</p> <p>Assigning the responsibility to Mr. Radheshyam to make an action plan to find a solution to the problem.</p>
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<p>everyone got busy. However, Mr. Radhe Shyam, Maya's class teacher noticed that she is not very enthusiastic since she returned from the vacation. He also noticed that the cases of cough and other minor illnesses have increased which has resulted in an increasing rate of absenteeism.</p> <p>Mr. Radhe Shyam discussed his observation with his colleagues in the staff room and they too shared the similar cases in their classes too.</p> <p>In a meeting with the principal, teachers shared their concern regarding the health of the students, and all unanimously pointed fingers at the construction work that was going on and also the disappearance of the beautiful garden.</p> <p>Mr. Radhe Shyam, who was also an environmentalist, concluded that the Noise and Air pollution have to be minimized by actively taking some measures.</p> <p>The principal assigned the responsibility to make a concrete plan of these measures.</p>		
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<p>Explore: Problem posed “If you are in the position of Radhe Shyam, How would you resolve the issue?”</p> <p>Content note Pollution : Pollution is the introduction of contaminants into the natural environment that cause adverse change.</p> <p>Meaning of Air Pollution When air is contaminated by unwanted substances which have a harmful effect on both the living and the non-living, it is referred to as air pollution.</p> <p>Meaning of Air Pollutant: The substances which contaminate the air are called air pollutants.</p>	<p>Teacher forms small groups of students and poses the problem and distributes the note of definitions related to pollution.</p> <p>Teacher orients students on the technique of brainstorming. Teacher asks directional questions</p> <p>Identify the problems that cause ill health.</p> <p>Discuss with the group and brainstorm the ideas to find solutions for the problem identified.</p> <p>Select the idea/s with unanimous consent and present it.</p>	<p>Students in groups discuss the entire case and the content note and share their views on the scenario and the embedded problem.</p> <p>Brainstorming activity Group coordinator distributes the small pieces of papers to the members and allows 5 minutes to think and write as many ideas as they think of the solution to the problem as possible.</p> <p>Every idea is shared and discussed to find the feasibility of the resolution to the case. The filtered-down solution/s are presented with justification</p>
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<p>3. Explanation: Cognitive construction of knowledge.</p> <p>Sources of Air Pollution: The sources of air pollutants are factories, power plants, automobile exhausts and burning of firewood and dung cakes, construction of big sites.</p> <p>Effect of Air pollution -Coughing. -Wheezing/difficulty breathing. -Irritation to eyes, nose, and throat. -Headache. -Dizziness. -Fatigue. Toxic chemicals present in the Air adversely affect environmental biotic components and human health.</p>	<p>Teacher links the Context (Case) to Content and introduces the topic ‘Air Pollution’ and if raised, clarifies the students’ queries</p> <p>Teacher distributes the Content note to students and asks the following directional questions:</p> <p>Read the content note carefully in groups and connect the scenario to the relevant content in terms of.....</p> <p>Changes in the surroundings which was Maya’s concern.</p> <p>Assumptions on the basis of the increasing health issues among students after the construction work.</p> <p>Common Symptoms of the illness due to Air pollution in general.</p> <p>Teacher distributes another note to the group and also the following link to view a youtube link. https://youtu.be/6lKaUTYWtvg and asks the following questions to prepare an Action plan to minimize the</p>	<p>Maya's deep sadness was caused by the replacement of the beautiful garden with a construction site for a shopping mall</p> <p>Assumptions drawn: Many people in the locality must be feeling the same problem.</p> <p>Students apply their experiences while dealing with the context and establish connection with the content by identifying the symptoms that people residing around the construction must be suffering</p> <p>Students in groups read the note carefully and view the</p>
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<p>4. Elaboration: Other Causes of Air pollution</p> <p>Industrial by product</p> <p>Petroleum refineries are a major source of gaseous pollutants like Sulphur dioxide and nitrogen dioxide.</p> <p>Combustion of fuels</p> <p>Agricultural chemicals: Use of harmful pesticides and insecticides to protect crops can cause Air pollution .</p> <p>Industrialization: Unsafe disposal practices for chemicals from the manufacturing units are polluting the land,</p> <p>Mining: Mining can result in release of harmful chemicals, such as uranium, being disturbed and released into the Air and environment.</p> <p>Control measures for preventing Air pollution</p> <ul style="list-style-type: none"> ● Before dumping the waste from industry and domestic industries must be treated to minimize pollutants ● Replacing the Chemical 	<p>problem of the case.</p> <p>Identify the exact cause of the sudden rise of Air pollution</p> <p>Prepare an Action plan of measures to be taken by,,,,</p> <ul style="list-style-type: none"> ● The school ● Teachers ● Students ● Residents of the surrounding areas 	<p>YOU TUBE in the context of the scenario, discuss and share their views for preparing the Action Plan to find an effective remedy.</p> <p>Each group presents their plan to the class and finally with the agreement of all the students and the teachers prepare a feasible plan to be presented to the principal.</p>
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<p>fertilizers with Organic fertilizers.</p> <ul style="list-style-type: none"> ● Air erosion could be prevented by proper tree plantation. ● Organizing various public awareness programmes. 		
	<p>Q: What would be the appropriate course of action in this situation?</p>	<p>Students view the you tube link to enhance their understanding on the air pollution</p> <p>For the Case:</p> <ul style="list-style-type: none"> ● Open communication with society. ● Eco friendly alternatives. ● Plantation drives. ● Societal awareness program.

<p>EVALUATE:</p> <p>Learning outcomes Application</p> <p>Create awareness related to Air pollution</p> <p>Testing application of learnt knowledge</p>	<p>Q: What are the ways through which you can protect the Environment from Air Pollution ?</p> <p>Q: Create new ideas for sustainable practices to mitigate the impact of human activities on the Air.</p> <p>Critically evaluate historical and current strategies of human interaction with the Air.</p> <p>Teacher asks direct content questions</p>	<p>Students share their ideas.</p> <p>For sustainable environment:</p> <p>Maya and her classmates discussed their plan to create a "Green Team" dedicated to Environmental awareness and action. and also to start campaigns to promote green spaces, organize tree-planting drives, and to collaborate with local authorities to support the preservation of green areas.</p> <p>Every group frames and asks questions to each other.</p> <p>A written test may be given to answer.</p>
<p>Assignment</p>	<p>Go to Maharashtra Nature park & find how trees can help in minimizing Noise Pollution.</p>	

Scenario Based Learning Lesson Plan- 10

Name of the facilitator: Prof. (Dr.) Giby Geevarughese

Subject: Psychology

Topic: Resilience

ANALYSIS:

Goal:

To develop critical understanding of resilience as a social competence

Content Analysis :

Meaning of Resilience

Concept: Resilience

Purpose: Social Competence

Ways to face adversities

Identifying Sources of threats.

Taking initiative in solving problems

Developing ability to confront adversities .

Values: Adapting well in the process of adversity (social and life values)

Task Analysis:

Social skills: Conflict management

Learners' analysis:

Adolescents who face many difficulties and challenges during this continual development and growth period age between 12 and 18 years.

Concept: Resilience is an individual's ability to adjust and adapt and lead normal life in the situations of changes , demands, and disappointments that come up in the course of life.

Learning outcomes:

The learner will be able to.....

Critically understand the concept of Resilience as social competence.

Explore the ways to develop resilience for social development..

Reflect upon the importance of developing Resilience as a Social competence.

Course format: Face-to-face, classroom, and social setup

Instructional Strategy: Scenario based Learning, Brainstorming, Reflection

Pre-instruction strategy: Training/ orientation on prerequisite social skills

Learners’ participation: Discussion, teamwork in constructing knowledge

Follow-through activity: Presentation of the outcomes of the learning activities in the form of question-answer and application of learning through any activity.

Content points /phases	Facilitator’s input	Learner's activities
<p>Phases of Constructivism:</p> <p>1. Engage:</p> <p>A scenario (context)</p> <p>Anju, a 12 years old girl, was a student of 8th Standard. The child was referred to the school counselor by her class teacher for psychological assessment and management of problems such as lack of concentration in studies, adjustment problems in school, low and sad mood, least interest in school activities, and unfriendly attitude with class fellows. She frequently used to challenge the role and responsibilities of the class monitor and always ended up with a fight.</p>	<p>Teacher presents a classroom scenario on PPT and ask questions to develop common understanding among students</p>	<p>Students view the Presentation and answer the questions to understand the facts related to it.</p>

<p>The counselor interviewed Anju and reported to the teacher that Anju was newly admitted to this school eight months back. Everyone was new to her and she faced difficulty in adjusting to the new environment and interacting with peers.</p> <p>In her old school, she was the class monitor because of her smartness and excellence in her studies. She used to share her personal and academic concerns with her teachers. She was popular among her big group of friends and also was liked as a class monitor for her unbiasedness and ready-to-help attitude.</p> <p>Here in school, she is missing the earlier environment and popularity. This has resulted in her present mental state which she termed as depression.</p>		
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<p>Explore: A concept note to be used as scaffolding for exploring the situation</p> <p>Concept of resilience Meaning Resilience is an individual's ability to adjust and adapt and lead normal life in the situations of changes , demands, and disappointments that come up in the course of life.</p> <p>Sub-skills of resilience: Social Resilience Communication skills, support of familiar people, open dialogue Emotional resilience Coping with emotions, negative feelings and dealing with responses as reaction, mindfulness, emotional regulation skills. Physical Resilience Overcoming Physical health or other similar challenges, Mental resilience Problem solving, Flexibility to change or modify own perspectives, Change management, Creativity skills.</p>	<p>Teacher forms small groups of students and distributes the learning material in the form of the content note to use as the scaffolding to find answers to the questions</p> <p>Consider that you are the class teacher. Identify the problem here. What must have caused the problem? Identify the skills that are required for Anju to overcome the problem.</p>	<p>Students in groups analyze the note in connection with Anju's problem.</p> <p>Understand the concept of Resilience and sub-skills that may help Anju.</p> <p>Identify the relevant skills and justify them.</p>
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<p>3. Explanation: Cognitive construction of knowledge. Defining the concepts of People’s passive and active participation.</p> <p>4. Elaboration: Application of new knowledge</p>	<p>Teacher links the scenario with the content and introduces the topic and if required bring more clarity for better understanding of the content.</p> <p>Teacher connects the content to the context and asks related questions</p> <p>Q: What are the behavior problems that you identified?</p> <p>Q: What as a counselor should the teacher do?</p> <p>Teacher shows a Video on YouTube. Teacher links the content of social competence and resilience.</p>	<p>Students in the class respond: Anxiousness. Social Withdrawal. Academic Problems</p> <p>Students respond — Counseling to help Anju to develop self-awareness, group activities to build good rapport with fellow students,</p> <p>Motivation-developing techniques would perhaps be more helpful in dealing with the child. Most importantly, the family guidance would perhaps provide further support and boost her competence in handling challenging situations.</p>
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<p>EVALUATE:</p> <p>Learning outcomes</p> <p>Application</p> <p>Self, peer, tutor evaluation</p> <p>Testing application of learned knowledge</p>	<p>Q. What are the ways through which you resolve the problem?</p> <p>Teacher asks direct content questions</p> <p>Q: What is the concept of resilience?</p> <p>Q: Why is resilience important for development?</p> <p>Q: How do you develop social resilience?</p> <p>Teacher asks groups to enact the sessions that a teacher may take with the student.</p>	<p>Students in groups discuss and present their ideas.</p> <p>Every group frames and asks questions to each other.</p> <p>Generalizations may be drawn by relating two terms social development and Resilience.</p> <p>Activity:</p> <p>Each group presents the mock counselling using the identified sub-skills as the scaffolding.</p>
<p>Assignment</p>	<p>Assuming that you come across a similar case, how would you help to counsel the person?</p> <p>Make an Action plan and present it in class.</p>	<p>The Individual task :</p> <p>In a given time limit students make an Action plan and present.</p>

Scenario Based Learning Lesson Plan- 11

Std. X

Name of the facilitator: Hinal Parekh

Subject: Commerce

Topic: Advertisement

Theme/Concept: Advertisement.

Brief Summary of the Content :

Meaning and features of advertisement.

Objectives of advertisement.

Types of advertisement.

Advantages of advertising.

Disadvantages of advertising.

Previous Knowledge:

Students having basic knowledge about advertisements and few channels.

Content Analysis:

Concepts: Advertising And Types of advertising- Print media, Television advertising, Radio advertising, Mobile advertising.

Values: Teamwork.

Instructional strategy:

Problem-based scenario (Students have to investigate a problem, make decisions, use logical reasoning, and think critically), 5E model of constructivism, Discussion, Teamwork, Research

References: Advertising -FrancJefkins, Macmillan, New Delhi.

Learning Outcomes: At the end of the lesson, the student will be able to...

- Explain the concept of advertisement.
- Identify the type of advertisement in the given case.
- Designs a graphical representation of the process of making an advertisement.
- Showcase the importance of well-coordinated teamwork through the game of Cobweb

Previous Knowledge: Students having some basic knowledge about different types of advertising

Planning for Teaching and Learning

Content points/phases	Activities to facilitate learning	Students' Activities
<p>1. ENGAGE:</p> <p>A scenario (context)</p> <p>The Scenario -</p> <p>Mr. Rajiv stays in Mumbai. He has started the business of Designer Kurtis and wants to promote the business but is not clear which type of advertising would be better.</p> <p>So he goes to one of his friends, Mr. Alok, to ask for advice.</p>	<p>Teacher presents a scenario on PPT and asks the following questions to ensure common understanding of the case among students.</p> <p>What business has Mr. Rajiv started?</p> <p>Under which category the business can be labeled?</p> <p>Why does he go to his friend Mr. Ashok?</p>	<p>Students view the presentation and answer the questions</p> <p>Designer Kurtis</p> <p>Garment Business</p> <p>For advice to promote the business</p>

<p>2. EXPLORE:</p> <p>Problem Posed: If you are Mr.Alok, what advice will you give?</p> <p>Content note Types of Advertising.</p> <p>Types of advertising.</p> <p>Print advertising: Print advertising is a form of marketing that uses physically printed media to reach customers on a broad scale.</p> <p>Television advertising: Television advertising is a type of advertising that refers to promotion of a product through commercials that are broadcast on television.</p> <p>Radio advertising: Radio advertising is the practice of purchasing spots on popular radio stations to promote your products and services.</p> <p>Mobile advertising Mobile advertising is a multichannel marketing strategy to help marketers reach audiences on their smartphones, tablets and other mobile devices</p>	<p>Teacher presents a problem to students.</p> <p>Teacher distributes the content note to refer to and asks them to come up with the best advice to consider.</p> <p>Gives following instructions Read the note carefully and also explore on NET in detail about the impact factor of each type. Discuss in groups the pros and cons of each type and draw assumptions about the most effective type with justification.</p>	<p>Students in groups read and discuss the note and analyze each type based on their experience and the data they could get from the Internet. They finally filter down the most effective possible type that Mr. Rajiv can adopt for promoting his product.</p> <p>Students present their assumption on the best suited type for Rajiv’s business advertising in the classroom.</p>
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<p>3. EXPLAIN:</p> <p>ADVERTISEMENT</p> <p>Definition Meaning: The Latin root of the term and advertising means ‘to draw people's attention to a particular thing’. Advertisement is the type of communication in which a product increases goodwill and sales of the product.</p> <p>Features of Advertising Paid Advertisement. One-way Communication. Personal or Non-Personal. Promotional Tool Wide Applicability. Use of Media. Difference in objectives as per the target audience</p>	<p>Teacher connects the content with the context by introducing the Topic</p> <p>Teacher satisfies the students’ queries if any.</p> <p>Teacher presents the following video on advertisement.</p> <p>A PPT on the present situation of advertisement of brand product of forever21</p> <p>A youtube https://youtu.be/DPMjdw9clPU?feature=shared</p> <p>Teacher asks students to identify the features of advertisement</p> <p>Teacher shows another YouTube video of Biba advertisement.</p> <p>Teacher asks directional questions. https://youtu.be/aS_wwC8P12I?feature=shared</p> <p>Read the note given to each group carefully and discuss the issue with its reference</p>	<p>Students may ask questions to get better clarity on the content.</p> <p>Students view the YouTube link and based on the content note provided identify the features of the advertisement viewed.</p> <p>Students view the advertisement and in group share their observations in the context of the impact of the viewed advertisement on the basis of its popularity, impact of the channel used .</p> <p>She also suggests the scope for more impactful for changing the channel and the promotional text</p> <p>Students in the group discuss the case of</p>
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<p>Elaborate Students activity on the advertisement viewed. Based on their content understanding</p> <p>Further content note: Advantages of Advertising.</p> <p>Creates Goodwill Increases Market Demand. Consumer Awareness Launch of a new product.</p> <p>Disadvantages Increased costs Survival of small companies Deferred Revenue Expenditure</p>	<p>to answer the following questions.</p> <p>After seeing the video, what observations have you made about the video?</p> <p>Why do you feel this product is so famous?</p> <p>Which channels have they used in the video?</p> <p>Suggest how this advertisement can be more effective in terms of the channel and text written with illustration.</p> <p>Teacher distributes the new content note on advantages and disadvantages of Advertising and connects it with the scenario of Rajiv What difficulties he would face and what you as Mr. Alok can advise on measures to minimize the difficulties due to disadvantages of advertising for small businesses?</p> <p>Suggest measures for Rajiv who is running a small business.</p>	<p>Rajiv in the context of the disadvantages that he may face ahead.</p> <p>Students explore the online search and relate some measures to be taken to avoid any set back. i.e..., Group advertising Cost-effective channel Limited to specific target audience etc.</p>
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<p>4. EVALUATE/APPLICATION: Testing application of learned knowledge</p>	<p>Teacher asks content questions to test their understanding of the topic and tells them to explore.</p> <p>Teacher ask students to explore the expert personnels who contribute to create the advertisement</p> <p>Teacher orients students on the Web of Life game which generally is played to create awareness about the ecological balance.</p>	<p>Students respond.</p> <p>Students Google search and discuss in groups and share with the class.</p>
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<p>Assignment</p>	<p>Teacher customises the game to showcase the significance of coordination in a team.</p> <p>Gives following instructions:</p> <p>Make a team of experts required to create the advertisement and play the Web of life game replacing them in the process and reflect on the following items:</p> <ul style="list-style-type: none"> - Lack of coordination and impact - Skills required for effective team building. 	<p>Students in a given time limit practice the game and present in the class.</p> <p>Students reflect on the basis of their experience on the effect of lack of coordination And also list the essential skills like Decision making Problem-solving Patience Listening Cooperation etc.</p>
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Scenario Based Learning Lesson Plan - 12

Std. X

Name of the facilitator: Kunal Jha

Subject: Mathematics I

Topic: Simultaneous Equation (Substitution Method)

Theme/Concept: Numerical Analysis

Brief Summary of the Content :

Method of solution - Simultaneous equation using Substitution Method

Examples of linear equations questions with two variables

Content Analysis:

Examples: Linear equation in two variables

Solution: Linear equations with two variables, Solution using substitute method

Values: Moral value- Discipline

Core Element: Constitutional Obligation (Duties as a citizen)

Instructional Strategy: 5E model of constructivism, Scenario-based learning, Discussion, Teamwork

References:

- <https://flexbooks.ck12.org/cbook/ck-12-cbse-math-class-10/section/3.5/primary/lesson/solving-simultaneous-linear-equations-by-substitution/>
- <https://alevelmaths.co.uk/pure-maths/algebra/simultaneous-equations/>

Learning Outcomes: At the end of the lesson a student will be able to.....

Connect the scenario with the given content note.

Frame linear equations in two variables of the given scenario.

Suggest the ways to solve the linear equations in two variables using a substitute method.

Solves the linear equations in two variables using the substitution method.

Discuss the discipline (moral) values.

Discuss the duties of a good Indian citizen in maintaining discipline.

Create a puzzle game using knowledge of simultaneous equation solutions.

Previous Knowledge: Students are aware of linear equations with two variables' solutions using equalizing the coefficients of a variable technique and solving simultaneously.

Planning for Teaching and Learning

Content points/phases	Activities to facilitate learning	Students' Activities
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<p>1. Engage: A scenario (context)</p> <p>The Scenario - Two school teachers of Standard V took her 50 students on an educational visit to a nearby garden. In that garden, there was an ice cream parlor run by a man. All the students showed their desire to have an ice cream candy. The teacher went to the parlor and ensured the hygiene and quality of ice cream. After ensuring this they asked students to take one candy from the parlor. The Parlor had two flavors - Strawberry and Chocolate. While collecting the candies there was a messy situation. Finally, the teachers approached the parlor manager, and asked for the bill. The manager found that each student took an ice cream candy. The cost of a Strawberry ice cream candy was Rs 15 and a Chocolate ice cream candy was Rs 12. The total cost of the purchase was Rs 690/-.</p> <p>Value of discipline</p>	<p>Teacher presents a scenario on PPT.</p> <p>Problem Posed:</p> <p>Teacher asks the following questions to ensure common understanding of the case.</p> <p>How many students bought Ice cream candy?</p> <p>What was the confusion in the process of distribution by the vendor?</p> <p>How could the teacher have avoided the confusion?</p> <p>Teacher sensitizes about the importance of discipline in life. She asks students their opinion on the need of maintaining of discipline</p>	<p>Students view the presentation and answer the questions</p> <p>Students respond to the questions.</p> <p>And also share their views about the confusion in the direction of not maintaining discipline while distributing the candies of two types.</p> <p>Teacher suggests resolution in the ideal situation based on their own experience.</p> <p>Students share their views.</p>
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<p>EXPLORE Problem posed How can you solve a similar problem mathematically?</p> <p>Method of simultaneous equation</p> <p>Elimination Method: $5x - 3y = 8 \dots (I)$ $3x + y = 2 \dots (II)$ Multiplying both sides of equation (II) by 3. We get $9x + 3y = 6 \dots (III)$ and $5x - 3y = 8 \dots (I)$ Now let us add equations (I) and (III)</p> $\begin{array}{r} 5x - 3y = 8 \\ + 9x + 3y = 6 \\ \hline 14x + 0 = 14 \\ \therefore x = 1 \end{array}$ <p>Now putting $x = 1$ in equation (II) $3x + y = 2$ $\therefore 3 \cdot 1 + y = 2$ $\therefore 3 + y = 2$ $\therefore y = -1$ \therefore solution is $x = 1, y = -1$; it is also</p>	<p>Teacher forms student groups and distributes the content note on solving simultaneous equations, Next, she asks them the following questions.</p> <p>How could the teacher find the values of each ice cream candy?</p>	<p>Students in groups read and discuss the note and establish a connection with the scenario based on the values given in the scenario.</p> <p>They use the mathematical equation and present in the large group with justification as follows:</p> <p>The scenario needs to be converted into a linear equation in two variables. Then either x value can be found in terms of another value i.e. y or vice versa .</p> <p>Assumptions drawn: If the teacher had used this mathematical calculation before the distribution, and asked students to make a queue according to their choice of candy, systematic distribution without any confusion to the buyer and seller could have been</p>
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<p>written as $(x, y) = (1, -1)$</p> <p>3. Explain</p> <p>Elaboration Content note: Method of solving simultaneous equation using Substitution method: $5x - 3y = 8 \dots (I)$ $3x + y = 2 \dots (II)$ Let us write value of y in terms of x from equation (II) as $y = 2 - 3x \dots (III)$ Substituting this value of y in equation (I). $\therefore 5x - 3y = 8$ $\therefore 5x - 3(2 - 3x) = 8$ $\therefore 5x - 6 + 9x = 8$ $\therefore 14x - 6 = 8$ $\therefore 14x = 8 + 6$ $\therefore 14x = 14$ $x = 1$ Substituting $x = 1$ in equation (III). $y = 2 - 3x$ $\therefore y = 2 - 3 \times 1$ $y = 2 - 3$ $y = -1$ $x = 1, y = -1$ is the solution.</p>	<p>Teacher introduces the topic Simultaneous equation and clarifies the queries if any asked by students for better understanding of the previously learnt content on simultaneous equations.</p> <p>Teacher distributes the 2nd content note the new learning of Substitute method of simultaneous equation and asks question to solve the scenario problem with the following instruction:</p> <p>Suppose we name Strawberry and Chocolate Candies as a and b respectively and resolve the case using a new method.</p>	<p>Students get their doubts about the content clarified by the teacher.</p> <p>Students in groups give steps of solving linear equations with two variables.</p>
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<p>EVALUATE/APPLICATION</p> <p>Testing application of learned knowledge</p> <p>A sub executive manager of a company has a habit of having coffee and toast from a coffee shop. He is very good at remembering numbers. He always paid Rs 300/- to shop and never kept bills with him. Once, arranging coffee and toast for the office meeting was on him. He could remember that the bill amount for his order of 2 coffees and two toast was Rs150/-, and the other day was Rs 125/-for 1 coffee and three toast.</p>	<p>Teacher asks content questions to test their understanding.</p> <p>Teacher asks the following questions.</p> <p>What is the cost of one coffee and one toast?</p> <p>What will be the total cost if I have to order 25 coffees and 50 toasts.</p>	<p>Students respond.</p> <p>Students discuss and share their solutions in the class.</p>
<p>Assignment</p>	<p>Teacher asks students to make a puzzle using the learnt problems.</p>	<p>The group task of puzzle making.</p>

Scenario Based Learning Lesson Plan - 13

Name of the facilitator: Raisha Renold Borges

Subject: Mathematics

Std. XI

Topic: Profit-Loss

Theme/Concept: Commerce: Profit and Loss

Content Analysis:

Content:

Term, Definition: Cost price, Sale price, Profit, Loss

Symbols: Cost Price => CP

Sale Price => SP

Formule: Sale price - Cost Price = Profit

Cost Price - Sale price = Loss

Calculation: Examples of Profit and Loss

Values: Business value, Resilience value

Core element: Inculcation of scientific temper

Instructional Strategy: Scenario Based Learning, 5 E's model of constructivism, Discussion, Team work

References: <https://youtube.com/watch?v=tHF2bXCQ3y4&feature=shared>

learning Outcomes: At the end of the lesson students will be able to

- Transform the scenario into mathematical expression.
- Define profit.
- Define loss.
- Calculate profit or loss of a given sale example.
- Analyze the sale outcome as profit or loss.
- Estimate on the outcome of their business idea.

Previous Knowledge: Students are aware of basic mathematical operations and have experience of market purchases.

Content points/ Phases	Facilitator's input	Learner's activities
<p>Phases of Constructivism: Engage: The scenario context</p> <p>Once upon a time on a sunny day, Lily and her friends Rita and Sita decided to venture into the world of entrepreneurship by opening a magical lemonade stand. Lily was good at mathematics, whereas her friends, not so much. They invested 200 rupees in lemons, sugar, cups, and a table to create their enchanted elixir. Each cup of lemonade was priced at 10 rupees, and by day's end, they sold 30 cups, earning a total revenue of 300 rupees.</p> <p>Now, the time had come to explore how much money they made by the end of the day. Lily asked Rita to calculate how much money they had made.</p>	<p>Initial Engagement</p> <p>The teacher shows a presentation to the students with a scenario.</p> <p>Teacher asks question Imagine you are Lily. How will you help your friends to solve this problem?</p>	<p>Critical understanding of the scenario.</p> <p>Answer the question</p>

<p>Explore:</p> <p>Content Note Definition of profit Definition of loss Examples of profit and loss</p> <p>Definition of profit- Profit is the extra money earned when the income from selling something is more than the total amount spent to make or acquire that item.</p> <p>Definition of Loss- Loss is the situation where the expenses or costs of producing and selling goods or services are more than the income gained from their sale.</p>	<p>The teacher makes small groups of students and distributes content notes and a list of questions as guidelines for discussion.</p> <p>What is the problem in the scenario?</p> <p>What could be the solution for the problem in the scenario?</p>	<p>After reading the content note they reflect on the scenario, and discuss the questions.</p> <p>Students find the problem in the scenario.</p> <p>Students come with a solution that the total earned money is 300 rupees and the total initiated money is 200 rupees.</p> <p>Therefore they earned a profit of 100 rupees.</p>
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<p>Explain and</p> <p>Elaborate:</p> <p>After good success in their magical lemonade stand. Lily, Rita and Sita decided to expand their business for this purpose they took a loan of rupees 500/-. They invested the money in their business and wanted a profit of rupees 400/-.</p> <p>To attract customers to their Magical Lemonade Stand, they reduced the Lemonade price and made it 9 rupees for a Lemonade cup.</p>	<p>Teacher introduces the topic Profit and Loss and asks students to frame a formula using terms Profit, loss and Sale</p> <p>Teacher refines the formula using standardised symbols</p> $P = SP - CP$ <p>(Symbols: Cost Price => CP</p> $\text{Sale Price} \Rightarrow SP$ <p>Formule:</p> $P = SP - CP$ $L = CP - SP)$ <p>Teacher continues with the scenario and asks question</p> <p>To achieve their target profit, how many cups of Lemonade are required to sell?</p> <p>If they could sell only 50 Lemonade cups, find whether they will get profit or loss and amount occurred in profit or loss.</p>	<p>Students in groups use their previous understanding of the mathematical formula using algebraic equations and frame it as...</p> $\text{Sale price} - \text{cost price} = \text{profit}$ <p>Students note down the mathematical formula.</p> <p>Students carefully listen to the extended part of the case.</p> <p>Students calculate and come with the following solution</p> $\text{Profit} = P = 400$ $\text{Cost Price} = CP = 500$ <p>therefore</p> $\text{Sale Price} = SP = 500 + 400 = 900$ <p>since each cup sold for nine rupees</p> <p>therefore total cups to be sold</p> $= 900 / 9$ $= 100$ <p>therefore total 100 lemonade cups to be sold.</p> <p>Students analyze the data and solve the problem</p> $\text{Sale Price} = SP = 9 * 50 = 450$ $\text{Loss} = L = CP - SP = 500 - 450 = 50$ <p>Based on calculation they</p>
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<p>Value Resilience</p> <p>Rita and Sita were very upset as they suffered losses in their business.</p> <p>Lily motivated them to think how they can turn their loss in business into profit and they started discussing various strategies.</p>	<p>Teacher asks -If you are Lily, what can you do to bring back the profitable business?</p> <p>Further Teacher challenges students to make an action plan to the desirable equation of Profit and Loss</p> <p>Teacher discusses with students on resilience value while appreciating their action plan strategies to overcome the loss in business.</p>	<p>interpret that the selling of 50 Lemonade cups will result in loss.</p> <p>Students in the group discuss and suggest measures that can help in making the profit equation as.....</p> <p>$P = SP - CP$</p> <p>Students in group make action plan which may be</p> <ul style="list-style-type: none"> • Bringing variety in flavours • Bringing variety in Natural colours • Adding little fruit cubes or other shaped fruit slices. • Maintaining quality of the juice in same sale price
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<p>Evaluate and Application</p>	<p>Teacher asks the following questions to test students' content learning</p> <p>Q1) A shopkeeper bought 1 kg of apples for 100 Rs. And sold it for Rs. 120 per kg. How much is the profit gained by him?</p> <p>Q2) Reeta purchased a table for Rs 1260, and due to some scratches on the top of the table, Reeta has to sell it for Rs 1197. Find the result of the sale.</p>	<p>Students solve the asked problems</p>
<p>Assignment</p>	<p>Select a business and plan a sale strategy for your stall to gain maximum profit. Implement the planned strategy in the next class and discuss your reflection with reference to the desirable equation of Profit and Loss</p>	<p>Students in groups plan a business strategy and do an actual presentation in the next class and discuss their reflection.</p>

Scenario Based Learning Lesson Plan - 14

Name of the teacher : Vishnu Mestry

Name of the school: Lady Ratanbai & Sir Mathuradas Vissanji Academy, Andheri.

Subject: Chemistry (ICSE)

Unit: Water Std: 8

Content analysis:

1. Content will cover the properties of hard water, its effects on skin, hair, laundry, appliances, and overall health.
2. Differentiate between hard and soft water and discuss the common minerals present in hard water.
3. Explore solutions to mitigate the impact of hard water, such as water softeners.

Learner Analysis:

1. Grade: 8th
2. Background knowledge: Basic understanding of the water cycle, properties of matter, and

Brief Summary of the content :

Meaning, Concept and Definition of Profit, Loss

Examples of Profit or Loss in a sale. everyday applications of water.

3. Learning styles: Visual, auditory, and kinesthetic learners.
4. Class size: 24 students, divided into groups of 6.

Resources: <https://www.youtube.com/watch?v=fsdGsUOKWu4>

Learning Outcomes:

By the end of the lesson, students should be able to:

1. Define hard water and list common minerals causing hardness.
2. Explain the impact of hard water on skin, hair, laundry, and appliances.
3. Propose and evaluate potential solutions to address hard water issues.
4. Demonstrate an understanding of the importance of water quality for daily life.

Content points/phases	Activities to facilitate learning	Students' Activities
<p>1. Engage:</p> <p>A scenario (context)</p> <p>The Scenario - Prabhav's father runs a school canteen and it once got severely affected by tanker-supplied hard water, students and teachers complain about a noticeable change in the taste of food and beverages. The minerals in the hard water were impacting the flavours of the dishes and altering the usual aromatic experience of coffee and tea served at the cafeteria.</p>	<p>Tr. presents a scenario on PPT.</p> <p>Teacher asks the following questions to develop a common understanding of the scenario.</p> <p>What is the problem? What do Prabhav & his friends observe?</p>	<p>Students view the presentation and answer the questions</p>

<p>EXPLORE</p> <p>Problem Posed: Consider you are Prabhav. How would you resolve the problem?</p> <p>Content note</p> <p>Meaning: Water Water is an inorganic compound with the chemical formula H₂O.</p> <p>Characteristics It is a transparent, tasteless, odourless, and nearly colourless chemical substance, and it is the main constituent of Earth's hydrosphere and the fluids of all known living organisms.</p> <p>Water is classified into two categories depending upon its behaviour towards soap solution. These are: soft water and hard water.</p> <p>Soft Water: Water which lathers with soap is called soft water. Example: Distilled water and rain water are common examples of soft water.</p> <p>Hard Water: Water which does not produce lather with soap</p>	<p>Teacher forms the groups and distributes a note having definitions of key terms. Teacher asks directional questions.</p> <p>Read the note given to each group carefully and discuss the issue with its reference to answer the following question.</p> <p>What is the real problem?</p> <p>What health problems, the people in the locality might be suffering due to the consumption of Hard water.</p>	<p>Students in groups read and discuss the note and establish connection with the scenario.</p> <p>Students respond in large group</p> <p>Cause: Effect of minerals in the tank water on health</p> <p>Assumptions drawn: Many people in the locality must be suffering from health problems like hairfall or greying of hair, skin roughness or itching due to dryness, skin itching, digestion issues, kidney related problems etc. due to the consumption of Hard water.</p> <p>Hard water is not fit for drinking.</p>
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<p>solution easily is called hard water</p> <p>Example: Sea water, tap water are common examples of hard water.</p> <p>Soft Water -</p> <p>Water softening is the removal of calcium, magnesium, and certain other metal cations in hard water. The resulting soft water requires less soap for the same cleaning effort, as soap is not wasted bonding with calcium ions.</p> <p>Hard water -</p> <p>Hard water is water that has a high mineral content. Hard water is formed when water percolates through deposits of limestone, chalk or gypsum, which are largely made up of calcium and magnesium carbonates, bicarbonates and sulphates. Drinking hard water may have moderate health benefits</p> <p>Cause of Hardness of water:-</p> <p>Hardness of water is due to the dissolved impurities of the salts like bicarbonates, chlorides and sulphates of calcium and magnesium. Water gets contaminated by these salts</p>		
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when it passes through the ground and rocks.

Hard water does not produce lather with soap solution readily because the cations (Ca^{2+} and Mg^{2+}) present in hard water react with soap (which is a mixture of sodium salts of higher fatty acids like stearic acid, palmitic acid, etc) to form a precipitate of calcium and magnesium salts of fatty acids.

Thus, no lather is produced until all the calcium and magnesium ions have been precipitated. This leads to the consumption and hence, wastage of a lot of soap. Hard water is, therefore, not fit for washing purposes.

Types of Hardness

The hardness of water is of two types: Temporary Hardness and Permanent Hardness.

(i) Temporary hardness.

It is due to the presence of soluble bicarbonates of calcium and magnesium. The temporary hardness can be removed by simply boiling the water. The bicarbonates of calcium and magnesium are formed in water by dissolution of carbonates of calcium and magnesium in the presence of atmospheric carbon

<p>dioxide.</p> <p>(ii) Permanent hardness.</p> <p>It is due to the presence of chlorides and sulphates of calcium and magnesium. Such water is also said to possess non-carbonate hardness. The term permanent indicates that hardness cannot be removed by mere boiling of water.</p> <p>Softening of Hard Water</p> <p>The process of removal of metallic ions (Ca^{2+} and Mg^{2+}) responsible for the hardness of water is known as softening of water.</p> <p>Temporary hardness can be removed by the following methods:</p> <p>(i) Boiling</p> <p>Hard water is taken in large boilers and boiled for about fifteen minutes. Consequently, the bicarbonate of calcium and magnesium present in the water decompose into their insoluble carbonates which settle at the bottom of the tank as precipitate which are removed by filtration or decantation.</p> <p>(ii) Calcium hydroxide (or Clark's) method</p>	<p>What can be done to resolve the problem?</p>	<p>Students with the help of the note provided suggest the measures to reduce the hardness of water.</p>
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<p>Calculated quantity of lime (calcium hydroxide) is added to hard water. The soluble bicarbonates are converted into insoluble carbonates which settle at the bottom of the tank and are removed by filtration.</p> <p>IMPACT The Impact of Hard Water on Your Hair</p> <p>Washing your hair in hard water may result in hair that is limp, dry, brittle, and dull in appearance. Each of these impacts is a result of the high content of hard minerals contained in hard water.</p> <p>The Impact of Hard Water on Skin</p> <p>Hard water can also hurt skin by reacting with the soap. This can cause your skin to dry out. Soap and hard minerals make soap scum, which can't be washed away with water. This is because there are so many hard minerals in hard water. When you shower or use the sink, soap scum is likely to build up. This residue can build up on your skin in hard water.</p> <p>Effect on Kidney:-- Regular consumption of hard water can affect kidney function.</p>		
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		<p>to ensure safe and healthy water supply.</p> <p>Organising and participation in NGO or Government organised drives.</p>
<p>EVALUATE/APPLICATION</p> <p>Testing application of learned knowledge</p>	<p>Teacher asks content questions to test their understanding.</p> <p>Teacher asks value-based questions What would be the advantage of a healthy and soft water supply on people's health and environment?</p> <p>What measures can be taken to avoid clean and soft water to be chemically contaminated and non-consumable?</p>	<p>Students respond</p> <p>Students discuss and share their views in the class.</p> <p>Students discuss and share their views</p>
<p>Assignment</p>	<p>Write a letter to the ward officer to complain about the water supply in your area</p>	<p>The Individual task of letter writing.</p>

Scenario Based Learning Lesson Plan - 15

Std. VIII

Name of the facilitator: Upasna Roy

Subject: General Science

Topic: Measurement and effect of Heat

Theme/Concept: Heat

Brief Summary of the Content:

- Heat and temperature relation
- Problem-based on heat and temperature relation
- Sources of Heat.

Content Analysis:

New terms: Sources of heat, Chemical energy, Electrical energy, Atomic energy

Formulae:

Heat required for temperature change = mass of water (gm) x change in temperature ($^{\circ}\text{C}$) cal

Unit: CGS unit Mass => gm, Temperature => $^{\circ}\text{C}$, Heat => calorie

IS system Heat => Joule

Problems: heat and temperature relation

Values: Intellectual Value, Environmental sensitivity

Core Element: Inculcation of scientific temper, Environmental protection, Observation of small family norms.

Instructional strategy:

Scenario-based learning, 5Es approach of constructivism, Group discussion method

Learning Outcomes: At the end of the lesson a student will be able to...

- Explain various sources of heat.
- Suggest solution for the problem highlighted in the scenario.
- Establishes the relationship between heat and temperature.
- Reflect upon their role in environment protection.

Previous Knowledge: Students are aware of heat, modes of heat transfer and its application in thermos flask function.

Planning for Teaching and Learning:

Content points/phases	Activities to facilitate learning	Students' Activities
<p>1. Engage</p> <p>A scenario (context)</p> <p>The Scenario - Class VIII A students were doing experiments in their school laboratory. Their teacher asked them to find the temperature of boiling water. There were 38 test tubes of equal size and five test tubes were of larger size and two test tubes were of the largest size.</p> <p>Teacher instructed every student to take one test tube from the rack and fill part of the test tube with water. Next teacher instructed them to heat the test tube water using the lab burner. Next, she instructed them to note down the boiling point using a lab thermometer. Every student got the boiling point around 100°C. Neetu was very puzzled as the water in her test tube was not boiling, even her classmates were puzzled. They approach the lab technician to resolve the problem.</p>	<p>Teacher presents the scenario using PPT</p> <p>Teacher asks the following questions to develop a common understanding of the scenario.</p> <p>Select your role from the scenario.</p> <p>In that role how will you resolve the problem?</p>	<p>Students view the presentation and answer the questions</p>

<p>3. Explain</p> <p>Elaborate</p> <p>IX A class students of ABC School went for community service at Maldungi village. There they observed that the villagers have a habit of boiling bath water outside their home, for the purpose they used wood, sticks and animal dung which are collected from the nearby forest. Based on the number of family members they use larger vessels to boil water. All the stoves were made of stones and mud and are of equal size. Students found the bigger family took longer time to boil water than the very small family.</p> <p>Value Small Family Norm and Natural sources of heat</p>	<p>Teacher introduces the topic and clarifies the queries regarding the content if any</p> <p>Teacher presents another scenario using the PPT.</p> <p>Teacher asks students to list down problems highlighted in the scenario.</p> <p>Teacher further asks to suggest a solution to the problems.</p>	<p>Students ask the queries if any for better understanding of the content</p> <p>They view the PPT and make an action plan and present it in the class.</p> <p>Student identify the environmental problem</p> <p>Discusses the amount of heat required by different families and cheaper and natural sources of heat used by them</p> <p>Suggest alternative sources of heat.</p> <p>Sharing views on importance of small family norm</p>
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<p>EVALUATE/APPLICATION</p> <p>Testing application of learned knowledge</p>	<p>Teacher asks content questions to test their understanding.</p> <p>Teacher asks: If the temperature of water changes by 10°C on giving 300 cal of heat, what is the mass of water?</p> <p>Compare the sources of heat in context to environment protection.</p>	<p>Students respond</p> <p>Students discuss and share their views in the class.</p>
<p>Assignment</p>	<p>Make a survey of the cost-cutting of energy at your nearby areas where solar panels are fixed by ways of electricity billing as compared to other sources getting via TATA & Ambani electricity.</p>	<p>Students in group carry out the task.</p>

Lesson Plan - 16

Scenario Based Learning

Name of the facilitator: Malika Yusuf Khan

Subject: Secretarial Practice

Std. XIth

Topic: Company Meetings-1

Content Analysis:

1. **Facts** :Meeting
2. **Brief summary of content:** Meaning & characteristics, Importance of company meetings, Essentials of a valid meeting
3. **Core Elements:** Inculcation of scientific temper
Values: Teamwork
4. **Methods and strategies:** 5 E's of Constructivism, Activity and Scenario-based Learning
5. **References:**
<https://youtu.be/FQYUHpiOfhk?si=ez2QnukpOZ4tfTS2>
<https://youtu.be/eqYXwdrfExY>
6. **Learning resources:** Images on meeting, PPT, Video
7. **Learning outcomes:** At the end of the lesson, a student will be able to :
 - a) Define company meeting
 - b) Identify the characteristics of company meeting
 - c) Analyze the essentials of a company meeting to resolve the issues in the scenario.
 - d) Create a sample circular for avoiding the issue in the scenario
 - e) Role-play the ideal setting of a company meeting for a meaningful outcome.

Previous knowledge: Students have the basic knowledge about the term meeting .

Content points/ Phases	Facilitator's input	Learner's activities
<p>Engage</p> <p>Scenario:</p> <p>Miss Sunita read out the minutes of the earlier meeting and then she started with the discussion on each point given in the agenda. It went out smoothly until they arrived at the agenda of the yearly increment . Every employee started sharing their views on their increment policy and in a short while the discussion became very aggressive and Sunita couldn't control it and suddenly she adjourned the meeting until next day & presented a vote of thanks to conclude.</p> <p>Sunita's secretary who had noted down the entire proceedings handed it to Miss Sunita.</p>	<p>The teacher presents a scenario of the corporate meeting and asks the following questions for common understanding:</p> <ul style="list-style-type: none"> • What is ABC? • What was the purpose of the meeting organised by Miss Sunita? • Which point of agenda gave rise to the heated argument? • Why did Miss Sunita abruptly end the meeting? <p>Teacher in groups ask students to identify the characteristics of the formal meeting</p>	<p>Students listen to the scenario carefully respond to the questions to develop common understanding</p> <p>Students in group discuss the scenario again and identify the elements of the meetings and present in the class</p>

<p>In a business corporate company called ABC, The manager Miss Sunita organised the year end meeting of all the employees. Accordingly she sent the circular with the agenda and the day and time schedule. One of the agenda was to discuss the yearly increment for the employees . The meeting started exactly on time on the given date .All the attendees marked their attendees .</p> <p>Explore:</p> <p>Problem posed If you were the manager of the</p>		<p>Students identify</p>
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<p>company,how would you handle the situation?</p>	<p>asking the following questions</p> <p>What was the issue that went out of control of the manager?</p> <p>Discuss and make assumptions about the probable causes that gave rise to the argumentation .</p> <p>How as Sunita you would have taken care of avoiding the chaotic situation beforehand ?</p>	<p>the issue and discuss</p> <p>Students discuss and share their opinions and make their assumptions</p> <p>Eg.</p> <ul style="list-style-type: none"> - disagreement in the amount of increment - Comparison with the previous increment and the proportion between the work distributions and the increment . <p>Students discuss and share their suggestions. ie. giving directional instructions</p> <p>Every employees suggestions with justification</p>
<p>Explain: Teacher introduces the topic and asked students to define meeting based on</p>	<p>Teacher introduces the topic and distributes the content notes to the students and ask the following</p>	

<p>their role played in earlier case</p> <p>Meaning -A meeting may be defined as gathering or assembling of two or more persons for transacting any lawful business.</p> <p>Definition -According to Shaw and Smith”Company Meeting is an assembly of two or more persons for transacting any lawful business</p> <p>Essentials of valid meeting:</p> <p>1.Proper authority- A meeting must be conveyed by a proper authority.</p> <p>2.Notice- The second requirement of a valid meeting is that a proper notice must be given to the appropriate person.</p> <p>3. Agenda-A secretary has to prepare the agenda in consultation with the chairman</p> <p>4. Quorum-Quorum means the minimum number of members required to attend a meeting.</p>	<p>questions</p> <p>Define the term Company meeting .</p> <p>The teacher corrects the definition if required</p> <p>Now, again analyze the issue in the context of the content given and create the circular with agenda and proper instructions related to the increment of salary</p> <p>Teacher shows the sample of a circular</p>	<p>Students define the term in their own words</p> <p>Students create the staff circular and present in groups .</p> <p>Students study the circular and refines the circular</p>
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<p>Elaborate:</p> <p>You tube Video :</p> <p>https://youtu.be/FQYUHpiOfhk?si=ez2QnukpOZ4fTS2</p>	<p>The teacher instructs the students to prepare a script and execute a role play of 5 mins duration to showcase a discussion on an issue based agenda being executed smoothly through brainstorming. (if required teacher will orient on brainstorming strategy)</p> <p>Time given Discussion - 10 min</p> <p>The teacher refines the script if required</p>	<p>Students discusses and create a script and present a role play</p> <p>Students may ask Q's for better clarity</p>
<p>Evaluate:</p> <p>Testing application of learned knowledge</p> <p>Application</p>	<p>The teacher ask the question which value was required for every employee to avoid a chaotic situation</p>	<p>Students answers</p>

<p>Value of teamwork and unity</p> <p>Video :https://youtu.be/HeI3LeOci0U?feature=shared</p> <p>Assignment :</p>	<p>Teacher asks the students to watch the video</p> <p>The teacher asks a question - even if Miss Sunita has not given the pre meeting instructions related to the increment, how the employees would have showcased a team work to come to the common consensus regarding the increment issues</p> <p>Refine the script created for role play and present in group in the next class</p>	<p>Students observe the video</p> <p>Students respond</p>
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Scenario Based Learning Lesson Plan - 17

Name of the facilitator: Dr. George Varghese

Subject: Drug Abuse

Std. - XI

Topic: English

Content Analysis:

Brief Summary of the Content:

Drug abuse, effects of drug abuse on social, psychological, and physiological aspects

Concept: Drug Abuse

Values: Inculcation of scientific temper, Sensitivity towards health and social environment

Core element: Inculcation of scientific temper

Instructional Strategy: Scenario Based Learning, 5 E's model of constructivism, Discussion, group work

Learning Outcomes: At the end of the lesson students will be able to...

- explain the meaning of drug abuse
- analyse the risks of drug abuse on health in the context of the case
- identify the symptoms of drug addiction in the context of the case's behavioral pattern.
- compare different types of drugs concerning the elements causing addiction and symptoms
- create an effective presentation on the physical, social, and psychological effects of drugs
- actively participate in creating awareness in the surrounding areas about ill effects of using drugs.

References:

<https://www.youtube.com/watch?v=P-ZAhDTivIM>

<https://www.youtube.com/watch?v=HxXgVbYXVEs>

(Drugs and symptoms)

https://www.youtube.com/watch?v=HDfSx_Q7_Yk


Reason for drug addiction

Previous Knowledge: Students know about various drugs.

Content points/ Phases	Facilitator's input	Learner's activities
<p>Phases of Constructivism:</p> <p>1. Engage: A case/scenario</p> <p>Students of class VI are active and educated but recently, many of them are found to be sleepy and not attentive in class. They tend to rush out occasionally and buy chocolate from a particular shop.</p> <p>The teacher found it suspicious and reported the matter to the principal. Further enquiry revealed that other teachers too have reported similar issues.</p> <p>Explore Problem posed</p> <p>3. Explain</p> <p>Cognitive construction of knowledge</p>	<p>Initial Engagement</p> <p>Teacher presents a scenario on PPT and asks the following factual questions to ensure a common understanding of the case.</p> <p>What was the behavior change the class teacher observed in a few students? What was the situation in other classes? What similarity was found in these students' behaviour during break time?</p> <p>Facilitate a brief class discussion around the scenario, asking open-ended questions to engage students emotionally and intellectually.</p> <p>Elicit students' prior knowledge about drugs and their effects.</p> <p>Activity: Research and Presentation</p> <p>Teacher discusses with the students the impact of addictions on teens</p>	<p>Critical understanding of the case/scenario.</p> <p>Students respond to the questions</p> <p>Students observe the video carefully</p> <p>Students say that addictions are not good.</p>

<p>4. Elaborate</p> <p>Fixation and Application of new knowledge (as per learners' capacities)</p> <p>Content Note :</p> <p>Opioids-</p> <p>Opioids are a class of drugs that derive from, or mimic, natural substances found in the opium poppy plant. Opioids work in the brain to produce a variety of effects, including pain relief.</p> <p>Stimulants-</p> <p>The term stimulants covers a broad class of drugs that increase the activity of the central nervous system.</p> <p>Hallucinogens -</p> <p>Hallucinogens are a large and diverse class of psychoactive drugs that can produce altered states of consciousness characterised by major alterations in thought, mood, and perception as well as other changes.</p> <p>https://www.therecoveryvillage.com/drug-addiction/types-of-drugs/</p>	<p>Activity: Group Presentations and Class Discussion</p> <p>Teacher asks each group of students to create a comparative chart of the types of drugs and its impact and present in class.</p> <p>Teacher asks the students to present the charts in class</p> <p>After each presentation, facilitate a class discussion about the similarities and differences between various types of drugs and their effects.</p> <p>Summarise key points and clarify any misconceptions.</p> <p>Teacher introduces 3 types of drugs and their impact on the lives of the students.</p> <p>Teacher shares content notes and a few links and ask students to explore and find out the harmful elements present in the drugs that</p>	<p>Each group explores and presents their analysis to the class, discussing the harmful elements present & long-term effects and potential interventions of the types of drugs.</p> <p>Each group refers to the resources & compares different types of Drugs concerning the elements causing addiction and tries to connect it to the scenario & present their understanding in the form of a presentation.</p>
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	<p>cause addiction in groups.</p> <p>Teacher asks the groups to compare different types of drugs concerning the elements causing addiction and symptoms referring to the resources provided.</p> <p>Teacher asks the students how they will resolve the issues of addiction.</p>	
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<p>5. Evaluate/ application</p> <p>Testing application of learned knowledge</p> <p>The social environment, also known as the ‘socio-cultural environment’, refers to the immediate physical and social setting in which people live or in which something happens or develops.</p> <p>https://www.thebehavioralscientist.com/glossary/social-environment</p> <p>https://www.youtube.com/watch?v=HDfSx_Q7_Yk&t=220s</p>  <div data-bbox="167 1587 505 1860" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">PLEDGE</p> <p>As a student and an individual, I accept and pledge to follow all rules and laws established by my country regarding the use of drugs.</p> <p>To demonstrate my support:</p> <ol style="list-style-type: none"> 1. I pledge that I will live a drug-free life. 2. I will show my friends that a drug-free life is more fun. 3. I will not cover up or lie for my friends if any rules are broken. I will hold them fully responsible and accountable for their actions. 4. I will seek information and assistance in dealing with my own or my friends' problems relating to drugs. 5. I will not accept the use or sale of drugs in the community. 6. I will be honest and open with my parents about my feelings and problems. 7. I will work with others to help spread the truth about drugs so together we create a drug-free community. 8. I pledge to support India's National Anti-Drug Campaign by taking a stand against alcohol and drug abuse. </div>	<p>Activity: Reflection and Creative Expression</p> <p>Ask students to reflect on what they've learned about the effects of drug abuse and how it has impacted their understanding.</p> <p>Teacher provides creative outlets for expression by asking the following questions to the students -</p> <p>How will you clean the social environment and how can you create awareness in the surrounding areas about ill effects of using drugs?</p> <p>What are the other addictions that a child might develop?</p> <p>Teacher shows a few images and asks students to categorise food items as addictive and non addictive.</p> <p>The teacher asks the students</p>	<p>Students get together and share their experiences in the class.</p> <p>Students perform the task with active participation</p> <p>Students classify the food items as per their understanding</p> <p>Students take the oath.</p>
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	<p>to take an Oath/pledge on anti-drug addiction & told them to create awareness regarding the same.</p>	
<p>Conclusion and recap: Conclude the lesson with a class discussion, allowing students to share their reflections and creative projects.</p>		
<p>Application-based assignment:</p> <p>Consider yourself a public health official tasked with creating a plan to reduce drug addiction in your community.</p> <p>Your assignment is to develop a comprehensive strategy that addresses the issue from multiple angles. Consider the following areas and create a list of resolutions for each:</p> <ul style="list-style-type: none"> • Prevention: How can we educate young people about the dangers of drug use and foster healthy coping mechanisms? • Treatment: How can we ensure that accessible and effective treatment programs are available to those struggling with addiction? • Harm Reduction: What measures can be taken to minimise the negative consequences of drug use, such as overdoses and the spread of disease? • Community Support: How can we create a supportive environment that reduces the stigma of addiction and helps individuals reintegrate into society after recovery? 		

Section III

Miscellaneous



Lesson Plans

Miscellaneous Lesson Plans
Constructivist Approach Using CAI
Lesson Plan - 18

Dr. Savita Manchekar

Storyboard: Script writing

ADDIE Model Design of Instruction:

Stage 1. Analysis:

- **Goals:** To develop understanding of Constructivism
- **Task Analysis:**
Content analysis: Concept of constructivism, characteristics of constructivism, difference between traditional teaching and constructivism,
Task Analysis:(Basic skills required): computer operating skills, running video files
- **Analysis of the learner:** Graduate or postgraduate adults, independent thinkers, able to analyse the given content. They have knowledge of traditional learning and are familiar with various learning experiences.

Stage 2. Design:

- **Designing Learning Outcomes (for Assessment):**
After watching this presentation the learner will be able to...
 - Define the term constructivism
 - Describe the characteristics of constructivism
 - Describe the different strategies of constructivist classrooms.
 - Apply constructivist approach in developing a CAI package
 - Create a sample design of CAI package
- **Choosing the Course format:** the class will be divided into 5 groups. All groups will be given the prepared CAI. It will be a blend of computers (offline and online) and classroom setting.

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Creating an instructional strategy

- **Pre instructional activities:** questions will be asked to check students' perception about knowledge of construction.
- **Learner's participation:** Group work, referring to given CAI, interaction in the form of question answer. Discussion to describe and interpret the pictures in the presentation

Follow through activity: Students will be able to apply a constructivist approach while designing instruction.


Designing Evaluation Strategies:

- **Formative evaluation:** exploratory question throughout the process of learning.
- **Summative evaluation:** students will discuss the characteristics of constructivism. Students will prepare a sample design of CAI for any topic of their choice using the Constructivist approach.

Stage 3. Development

Storyboard:


ANIMATION/ VISUALS / VIDEO	CONTENT (TEXT)	AUDIO AND SOUND EFFECTS
SLIDE NO: 1	SLIDE TITLE: Scenario	

<p>Text with custom animation</p>	<p>A case</p> <p>The principal wanted to use a constructivist approach to teaching-learning. He instructed all the teachers to prepare a CAI package in their subject using a constructivist approach. Teachers were worried. They knew about the CAI package but were not aware of using any learning approach. They all went to the senior teacher who was an expert in learning strategies. She instead prepared a CAI on what is a constructivist approach for teachers and told them to interact with it in her absence.</p> <div style="text-align: center;">  <p>sample CAI on Constructivism.ppt</p> </div>	<p>No audio</p>
<p>SLIDE NO: 2</p>	<p>SLIDE TITLE: Learning outcomes</p>	
<p>Text with custom animation</p>	<p>After viewing this presentation, you will be able to...</p> <p>Define the term constructivism</p> <p>Differentiate between traditional classroom and constructivist classroom</p> <p>Describe the characteristics of constructivism</p> <p>Create a sample design of CAI package using a constructivist approach.</p>	<p>No audio</p>

SLIDE NO: 3	SLIDE TITLE: Describe the pictures	
Pictures of two strategies of cooperative learning- sage on the stage and guide on the side	Observe the picture carefully and compare. Self-learning by students Teacher's role is to assist self- learning.	Voice-over to describe the picture for Visually impaired children.
SLIDE NO: 4	SLIDE TITLE: Self-study process	
Picture of group of students studying/ exploring together	What is the process these students follow in self-study? Group learning, exploring, discussing Mentally and physically active	No audio
SLIDE NO: 5	SLIDE TITLE: Students acquiring new knowledge	
Picture of group of students joining a jigsaw	Interpret this picture and the call-out in relation to the earlier We Knew what shape it was. We could do it !!!! (to be written in call out) New learning based on previous knowledge	
SLIDE NO: 6	SLIDE TITLE: key words for definition	
No pictures Custom animation- appear	Self-learning...Group learning... Mentally and physically active learning--- New learning based on previous knowledge If it is a constructivist approach, then use these terms and define it by making meaningful statements.	No audio
SLIDE NO: 7	SLIDE TITLE: Definition	

<p>No pictures Custom animation-appear</p>	<p>understanding. Constructivism is an approach to learning based on the belief that knowledge is constructed by the learner through an active, mental process in a social setup. View the following youtube tube by clicking on the following link. Song on constructivism: https://www.youtube.com/watch?v=UkJTiodg-Q (Hyperlink) Theories of constructivism: http://www.presentermedia.com/index.php?target=closeup&maincat=animsp&id=9362 (Hyperlink)</p>	<p>No audio</p>
<p>SLIDE NO: 8</p>	<p>SLIDE TITLE: Difference between traditional classroom and constructivist classroom</p>	
<p>No pictures Custom animation-appear</p>	<p>How different is a constructivist classroom from a traditional classroom? Watch the link given below and write your answers https://www.youtube.com/watch?v=IEsGHVdVkJMw</p>	<p>Voice-over for the points written</p>
<p>SLIDE NO: 9</p>	<p>SLIDE TITLE: Characteristics of Constructivism</p>	
<p>No pictures Custom animation-appear</p>	<p>Characteristics of Constructivism Watch the video by clicking on the following link and Discuss in group about the characteristics of Constructivism. https://www.youtube.com/watch?v=Xa59prZC5gA</p>	<p>Voice-over for the points written</p>

SLIDE NO: 10	SLIDE TITLE Let us check understanding of your Learner's	
Animation of the text Hyperlinks to the options to slide no 11,12,13	Click the correct option Constructivist approach keeps the learner... a. Mentally active b. Physically active c. Mentally and Physically active	
SLIDE NO: 11	SLIDE TITLE: Mentally active???? think again	
Text animation, Picture showing students' activity, shape hyperlink to slide 10	What does this picture suggest?? Observe carefully ... Try again	
SLIDE NO: 12	SLIDE TITLE: Physically active???? think again	
Text animation, Picture showing students' activity, shape hyperlink to slide 10	What does it take to join the pieces in this JIGSAW puzzle Observe carefully and... Try again	
SLIDE NO: 13	SLIDE TITLE: Absolutely correct	
Text animation.	Constructivism believes in mental and physical activity by the learner in order to explore and analyse the learning material. Now you are ready to go to the next level.....	
SLIDE NO: 14	SLIDE TITLE: Activity- strategies for constructivist classroom	

<p>No pictures Custom animation-</p>	<p>Activity/ Task Connect to the internet and search for the strategies to be used in constructivist classroom Prepare a sample design of CAI package using any constructivist strategy. Sample Plan template  Lesson plan format for 5E's lessons.doc</p>	<p>No sound</p>
<p>SLIDE NO: 15</p>	<p>SLIDE TITLE: How did you find learning through this CAI package???</p>	
<p>Text animation</p>	<p>Your views would help to refine this CAI Package further to make it more effective. Please click the following link to respond to the e-questionnaire http://goo.gl/forms/ct5Npm7ZuGBu5UFC2</p>	
<p>SLIDE NO: 16</p>	<p>SLIDE TITLE: Links of the pictures</p>	
	<p>http://ualbertaschool.wordpress.com/author/ualbertaschool/ http://www.presentermedia.com/index.php?target=closeup&maincat=animsp&id=9362</p>	
<p>SLIDE NO: 17</p>	<p>SLIDE TITLE: Links of the pictures</p>	
<p>Text animation with word art effect</p>	<p>THANK YOU !!!</p>	

Stage 4. Implementation: Students will be tested for basic skills of ICT. They will be trained in these skills if required. Teacher will give the necessary instructions. He/She will present the prepared CAI package to the students. Students will be oriented to and trained in using strategies of constructivism to prepare a CAI package.

Stage 5 Evaluation:

During the presentation, the teacher will ask questions based on the content presented in the CAI. Few questions will be asked at the end of the CAI package to check their understanding. Task will be given to the students to check the application of the learnt knowledge. Students will respond to the questionnaire by giving their views on the effectiveness of the CAI package.

Miscellaneous Lesson Plan
Lesson Plan - 19
on Co-teaching

Name of the facilitator - Dr. Shashikala Yadav & Ms. Soma Guha

Subject: Geography

Std. IX

Topic: Tourism -Medical/Health Tourism

ANALYSIS:

Task Analysis: Geographical skills—Map reading

Content Analysis:

Facts: New terms: Tourism, Health tourism, Tourist

Place: Country all over the world that tourists visit

Concept Tourism, Health tourism

Theme: Concept clarity of the term tourism and health tourism in terms of objectives, characteristics, and significance

Care to be taken while preparing for the visit.

Core value: Pride for the Cultural heritage.

Learning Outcomes

After the completion of the topic, The learner will be able to.....

- Define the term Tourism.
- Explain the concept of Health tourism in the context of elective and mandatory medical treatment.
- Explore the significant places of Health tourism all over the Globe
- Explore the Places in India that can be developed as the places of health tourism.
- Establishes the relationship between Nation's Economy and Tourism
- Creates an activity to promote India's Health tourism in the context of a place of your choice.
- Strategy: CO Tg, Scenario-based Learning using Constructivist approach

Co-teachers 1 and 2 (Expert in the same content matter)

Roles of the teachers :

Tr. 1 facilitating the understanding of the content matter

Learning resources:

A Map showing places of Health tourism,

A link showing information about Health Tourism

Content Note

References

<https://www.william-russell.com/blog/what-is-medical-tourism/#difference>

TEACHING POINTS:	FACILITATOR'S ACTIVITIES:	LEARNERS' ACTIVITY
<p>Phases of Constructivism:</p> <p>1. Engage: Teacher 2 Scenario:</p> <p>After the final examination, Rajiv urged his parents to go out of town to Raigad as he was very impressed with the Maratha King, Chhatrapati Shivaji Maharaj's Life that he had studied in the school this year. His father Mr. Narayan readily agreed to visit the place, but was worried as to how to make all the arrangements to go well-equipped so as to make the visit enjoyable and comfortable without any hassle.</p>	<p>Teacher presents the case in front of the students and asks questions for ensuring common understanding of the case</p> <p>Why did Rajiv insist on visiting Raigad?</p> <p>Teacher distributes the informatory note about the Importance of the Place.</p> <p>What were the places he would be interested to see at Raigad?</p> <p>Why was Mr. Narayan confused?</p>	<p>Students listen carefully</p> <p>Students based on the Trs. narration and the content note answer the questions</p> <p>Ans: Students in group discuss and share their assumptions on the selection of places that Rajiv would like to see</p> <p>Ans: About making preparations of the journey</p>

<p>Exploration Tr 2 Problem posed You are Mr. Narayan and how would you prepare for the journey?</p> <p>Concept of Tourism: Definition: A visit and a stay to places for Social, Cultural, and Economic purpose that requires to move away from home town is called Tourism</p> <p>Visitors are called Tourists.</p> <p>Characteristics: It's for pleasure or elective in nature It contributes in Nation's economy It involves sightseeing and engages in related activities. It is a planned and purposeful activity.</p> <p>https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.pinterest.com%2Fpin%2F546342998564011398%2F&psig=AOvVaw1XL_l-z-3lManWXRffoG7h&ust=1720328823446000&source=images&cd=vfe&oeq=1</p>	<p>Teacher poses the problem and distributes the concept note and also the list of different types of tourism and asks students in groups to discuss considering the following directional questions:</p> <p>Teacher .asks following directional questions</p> <p>What is such a visit called?</p> <p>What would you term the family members of Mr. Narayan when they visit places?</p> <p>Identify the type of visit Mr. Narayan is planning.</p> <p>Based on your experience, discuss in group and make a list of essential things and arrangements that Mr. Narayan should consider before leaving for the visit.</p>	<p>Students in groups discuss and understand the problem posed.</p> <p>Thereafter each group finds answers to the directional questions and makes a presentation and presents in the class that includes.....</p> <p>Name of the visit as a tour</p> <p>From the list they identify as the type as a historical visit</p> <p>Students share their experience of this type of tour they have gone and with consensus make a list of pre-requisite for such a visit.</p>
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<p>Explain Tr. 1</p> <p>Tourism</p> <p>Elaborate Tr 1</p> <p>Definition: Health Tourism is an elective phenomenon to visit the places for enhancing the health or physical beauty or shape</p> <p>Example : Yoga, Ayurvedic treatment, Plastic surgery, weight loss centres, Naturopathy centres, etc.</p> <p>Difference between Health tourism and Medical treatment visit</p>	<p>Tr introduces the topic of the content and clarifies any doubts or queries students have about the content.</p> <p>Group work: Teacher distributes the pictorial version of types of Tourism and ask students to identify the health tourism and also its features inferred from the definition note provided in groups</p> <p>Teacher asks students to further categorise the identified pictures as voluntary and mandatory health visits</p> <p>Teacher introduces the term selective health tourism and Medical treatment visits</p> <p>Teacher displays the list of selective tourism and ask students to explore through the specific world map that is distributed to students the places of these selective health tourism sites</p>	<p>Students ensure their understanding of the basics of the concept of tourism by raising their queries if any.</p> <p>Students in group sort the picture based on the assumptions as per types they find relevant and present the identified pictures of health tourism</p> <p>Students categorise as per their perception.</p> <p>Students based on the characteristics of the concept of tourism define selective health tourism</p> <p>Students select the places and justify with reference to the definition of Health tourism.</p> <p>Students through map reading find the places of health tours</p>
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<p>Evaluation /Application Teacher 1 &2</p> <p>Value Preserving cultural heritage</p> <p>Assignment:</p>	<p>In line with the case discussed earlier gives following task</p> <p>If you plan a tour to Raigad, what preparation would you make? Prepare a chart</p> <p>How would you ensure that the historic place Raigad you visit is kept well preserved?</p> <p>Find out the popular spots in Mumbai city that can prove to be a good destination for promoting as tourist's attraction.</p> <p>Create a draft of an advertisement to promote any place of tourism in India for popularising it</p>	<p>Students in group prepare a graphical representation of the pre-visit arrangement and present in the class</p> <p>Students share their suggestions in the classroom.</p> <p>Students in a given time limit survey the places and select the one based on their understanding</p> <p>And prepare a draft of an advertisement to attract the tourists to visit the place</p>
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Miscellaneous Lesson Plan
Lesson Plan — 20
STORYTELLING LESSON PLAN

Name: Asha A.K.

Subject - English

Std: VII (English Balbharati)

Topic: Unit 3.6 Think Before you Speak!

Content Analysis: Facts: Place, characters, time

New Terms and phrases: amends, stammered, far and wide

Theme: being patient and thoughtful when you speak

Summary -

• **Contextual summary —TA--1**

A disciple - angry with his guru for not getting prominence- travelling through a forest- disciple got drunk - abusing the Guru- guru did not reply at all - reached a village- Guru asked - stop abusing - villagers who respect the Guru will not tolerate the abusive words - will harm the disciple - did not want that to happen.

- **Brief Summary of Content:** A young man went to his spiritual teacher- discuss about mending his ways -using harsh words. Guru asked - tear a paper, throw it - collect them back - could not get even a single one - realised the impact of using harsh words. (The paragraphs are selected from the story for a 30-minute lesson)

Values : patience, politeness, courtesy

Core Elements : Inculcation of Scientific temper

Value Statement : 'One should be patient and thoughtful before speaking.'

Methods and Strategies: Constructivist approach, Storytelling method, Problem-based learning, brainstorming, and Discussion

References: <https://www.slpquest.com/post/the-guru-the-disciples>

Learning Resources: Interactive presentation, Story bird application

Learning Outcomes:

- **At the end of the lesson, a student will be able to..... (Use action verbs)**
- Identify the value from the contextual story presented.
- analyse the identified idea in the group
- Present refined idea in the class
- Create a story in first person narrative based on the value learnt from the topic.

- **Previous knowledge:** The pupil is aware of various stories based on the moral values

Storytelling -- Lesson plan

Content	Teacher's activity	Student activity
<p>Engaging Content points — Contextual Story <i>The Guru and the Disciple</i> A disciple - angry with his guru for not getting prominence- travelling through a forest- disciple got drunk - abusing the Guru- guru did not reply at all - reached a village- Guru asked - stop abusing him - villagers who respect the Guru will not tolerate the abusive words - will harm the disciple - did not want that to happen.</p>	<p>Guidelines</p> <p>Teacher narrates the story with the help of the software application 'Story bird'.</p> <p>Teacher uses appropriate pronunciation, stress, modulation of voice, and adequate expressions and feelings in narrating the story.</p> <p>Teacher ends the story without revealing the statement of the moral value of the story.</p> <p>Teacher divides students into groups</p>	<p>Guidelines</p> <p>Students listen to the story carefully and note the modulation of voice, expressions and feelings in the narration.</p>

<p>Exploring</p> <p><i>Brainstorming — Group exploration</i></p>	<p>Teacher asks students to identify the value by brainstorming in their groups.</p>	<p>Students discuss, share and generate ideas and complete the story/change the end of the story.</p>
<p><i>Independent exploring</i></p>	<p>Teacher explains the procedure of brainstorming</p>	<p>Students identify the value in the story and discuss it.</p>
<p><i>Presentation</i></p>	<p>Discuss the storyline to get common understanding</p> <p>Write independently the statement</p>	<p>Students discuss and answer.</p>
<p><i>Group work</i></p> <p>Completion of the story/Changing the end of the story</p>	<p>Share each idea with the group</p> <p>Refine and select one statement with consensus and present in the class.</p>	

<p>Explaining</p> <p>3.6 Think before you speak!</p> <p>A young man went to his spiritual teacher and said, “I have spoken very harsh and unkind words to my friend, and he is deeply hurt. I am afraid I have lost my friendship with him. How can I make amends?”</p> <p>The wise teacher gave him a fresh sheet of blank paper and a pen; he said to the young man, “Write down on this paper all the harsh things you said to him.”</p> <p>The young man did as he was told and showed the paper to the teacher.</p> <p>“Now tore this sheet of paper into as many small bits as you can,” the wise teacher said.</p> <p>Soon, the single sheet was torn into a hundred tiny bits of paper.</p> <p>“Throw the bits out of this window”, the teacher told him.</p> <p>That was easily done! It was a windy day and the</p>	<p>Teacher connects the moral value with the content and introduces the topic.</p> <p>Teacher distributes a passage from the text having the same value given in the first story to each group and asks the students to read the passage silently and identify the given value..</p> <p>Teacher asks content related questions to be answered in own words as part of their own learning</p> <p>1. Why did the young man go to his spiritual teacher?</p> <p>2. What did the teacher ask the young man to do?</p>	<p>Students read the passage silently and identify the value given in the passage.</p> <p>Students in groups discuss each question and paraphrase the relevant content and respond.</p> <p>1. The young man was afraid that he may lose his friendship as he had spoken harsh words to his friend.</p> <p>2. Teacher asked the young man to write down all the harsh words, tear them into bits and throw them out of the window</p>
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<p>tiny bits were scattered far and wide even as the young man watched.</p> <p>“Now, go out into the street and collect as many bits of the paper as you can,” the teacher ordered him.</p> <p>The young man was taken aback. “But... but, that would be difficult...” he stammered.</p> <p>“It will be difficult indeed, but do give it a try,” the teacher suggested.</p> <p>The young man went out. He returned half an hour later, exhausted. He had not been able to get hold of a single torn bit from the paper he had torn up just a while earlier!</p> <p>“This is what happens with the spoken word,” the teacher said to him. “Once you have spoken the words aloud, it is very difficult to take them back. Therefore, learn to think before you speak in anger.”</p>	<p>3. Was the young man surprised? Why?</p> <p>4. Did he collect all the bits of papers?</p> <p>5. How was the young man’s condition when he returned?</p> <p>6. Why?</p>	<p>and asked him again to collect as many bits as possible</p> <p>3. Yes, he was surprised because of the weird task given to him</p> <p>4. Not even a single one.</p> <p>5. He was exhausted and was looking disappointed.</p> <p>6. The papers were scattered far and wide and couldn’t be traced.</p>
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<p>Elaborate: Appreciation of the value</p> <p>Patience, Thoughtful-ness, Think before you speak</p> <p>‘One should be patient and thoughtful before speaking.’</p>	<p>Teacher gives the list of values and asks students to analyse these values in groups in the context of the story and justify.</p> <p>Teacher asks students to find out the story, incident or any anecdote online and analyse it in the context of the same values to justify the end result of the story.</p> <p>Teacher asks students to find the similar moral value of the earlier story.</p> <p>Teacher asks students to discuss the importance of the value they have identified in their group/groups.</p> <p>Teacher helps students in framing the value statement if necessary through probing questions</p>	<p>Students in groups analyse the values; the ways and means to uphold the value by citing day-to-day life experience.</p> <p>Students in the group reflect on the case identified online with reference to the values listed by the teacher and present in the large group.</p> <p>Students read silently the entire story from the textbook and identify values and make a list and present with justification.</p> <p>The students connect the values identified and recall the similar situations where these values act as a good solution to any issue if any existed.</p> <p>Students frame the expected value statements in their own words.</p>
<p>Evaluating/ Application</p> <p>Narration of the story as a first person (Textual Grammar)</p>	<p>Teacher makes the students narrate the story using ‘I’.</p>	<p>Students narrate the story as per the instruction</p>

Assignment

Tr. asks students to alter, modify or mould the same story to enlighten the student using different peaceful solution

OR

Prepare a small story based on the value/ Find out another story based on the same value.

Miscellaneous Lesson Plan
Strategy- 'A' Method using constructivist approach
Lesson Plan - 21

Name: Dr. Shashikala Yadav

School/College: The Lord's Universal College of Education

Std: FYB.Ed

Subject:- Pedagogy of School Subject: Geography

Topic: Unit 4- Teaching- Learning Resources - Maps & Unit 5- 'A' method of teaching geography

Content Analysis-

1. **Facts:** Meaning of Map, Parts of Map

2. **Theme:** Maps — Map reading and interpreting using distance, direction, signs and symbols, point, line and area through A method

Concepts: 'A' Method

3. **Brief Summary of Content:**

a. Map is a representation of all or a portion of the earth's surface, usually drawn to scale and on a plane or a flat surface.

b. 'A' Method is one of the teaching strategies. It helps to develop question and analysis

4. **Values -** Citizenship values

Core Elements: India's Common Cultural Heritage,

5. **Methods and Strategies:** Activity Method, Discussion, 'A' Method through case-based learning

Task Analysis: Map reading skills

6. **References:**, Teaching of Geography Method,

7. **Learning Resources:** A scenario as a context chart, pictures, slide presentation, Map of India, Images of Pilgrimages in India,

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.geeksforgeeks.org%2Fpolitical-map-of->

[india%2F&psig=AOvVaw2LXRqHjmBHZmV2uBkfKtNT&ust=1721799549589000&source=images&cd=vfe&opi=89978449&ved=0CBEQjRxqFwoTCKC9xae5vlcDFQAAAAAdAAAAABAE,](https://www.google.com/search?q=india%2F&psig=AOvVaw2LXRqHjmBHZmV2uBkfKtNT&ust=1721799549589000&source=images&cd=vfe&opi=89978449&ved=0CBEQjRxqFwoTCKC9xae5vlcDFQAAAAAdAAAAABAE)

8.

Activity Resource Material

https://docs.google.com/document/d/1AMqx2mrVut7uT2dQuy88znbUIDKljv1Myn3K_hEDog/edit?usp=sharing

9. Learning Outcomes:

At the end of the lesson, a Student will be able to.....

- Effectively read the Map using 'A Method.
- Critically analyse the presented place as a tourist destination
- List out the tourist activity.
- Prepare budget and itinerary for travelling.
- Use the elements of the Map while planning for the tourism activity.
- Fill the map of India with appropriate signs and symbols and colours.
- Follow the steps of 'A' Method accurately in the process of marking the assigned elements in the process of Map filling

10. Previous knowledge: B.Ed geography students are aware about the signs and symbols of Map and use of Map while travelling and students are aware of different teaching strategies. Students are also familiar with the brainstorming strategy.

Content Points	Activities to facilitate learning	

<p>Engage: Names of the Indian places of tourism: Lonavala Mahabaleshwar Goa</p> <p>Explore:</p> <p>Activity: Four tourism agencies organize pilgrimage tourism for their customers with complete details of the traveling journey Badrinath (Uttarakhand) Dwarka(Gujrat) Jagannath puri (Orissa) Rameswaram (TamilNadu) With the following details:-</p> <ul style="list-style-type: none"> • Distance • Route • Mode of traveling • Planning • Best Time • Cost • Stay • Precautions <p>Content note on “A” method Acronym of alphabet A. 1. Ask: Ask questions based on Geographic location, climate, distance, route, Nature and scenic beauty . 2. Acquire Geographic</p>	<p>Teacher names the following places and asks students to identify the elements that make these places of tourism destination</p> <p>Teacher assigns another activity to students divided into 4 groups as four directions concerning four pilgrimage places and briefs them about the activities. Teacher. provides the map of India to each group and the content note on the ‘A’ Method</p> <p>Teacher asks students to prepare an itinerary for the given specific pilgrimage place of travel based on the given points with the help of Google search.</p> <p>Teacher orients about map reading skills if required.</p>	<p>Students based on their experience list out the features that make these places tourists’ attractions i.e., Natural surroundings Creative artefacts Food speciality etc.</p> <p>Students listen to the instructions. In groups discuss the place assigned to them, identify and share their views on the elements of tourism. following the steps of the ‘A’ method.</p> <p>Students study the map carefully and based on the acquired data mark it as per the geographic symbols to represent entire details of the given place of pilgrimage and present in the class</p>
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<p>Information (Data collection using different resources): Locate, gather, and process information from a variety of primary and secondary sources including maps. Recording observations about the physical and human characteristics of places</p> <p>2.Arrange(Organise) Geographic Information: map fillings to display geographic information /. Constructing graphs, tables, and diagrams to display geographic information in the context of the following elements of map:</p> <p>Elements of Map</p> <ul style="list-style-type: none"> ● Title ● Scale ● Legend ● Compass ● Latitude and Longitude <p>4. Analyse Geographic Information: Using maps to observe and interpret geographic relationships. Using texts, photographs and documents to observe and interpret geographic trends</p>		
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<p>and relationships.</p> <p>5. Answer Geographic Questions: Present the geographic information in the form of both oral and written reports accompanied by maps and graphics.</p> <p>Summary: Use of 'A' method of geographic inquiry to acquire geo-graphic information, draw conclusions, and make generalisations.</p> <p>3. Explain</p>	<p>Teacher introduces the topic</p> <p>Teacher asks the following directional questions to make a destination plan for the customer</p> <p>In which state of India the given specific pilgrimage is located ?</p> <p>What is the climatic condition of this area?</p> <p>What is significant about its location?</p> <p>Search appropriate routes for given places and plan the journeys by train, plan, and road trip from Mumbai with the help of Google Maps and the Internet.</p> <p>The teacher asks students to make a list of specific signs and symbols of things to locate on a map of India like train, air, road (National Highways) routes, rivers, mountains, etc.</p>	<p>students may ask queries if any.</p> <p>Students listen to the instructions and prepare itineraries on the basis of the acquired data and also the directional asked.</p> <p>Describe their planning, write their answers and mark them on the map according to the pointers given.</p> <p>Students make use of appropriate colours, signs, and symbols to prepare maps in the group with the help of the internet and Google.</p> <p>Students present their maps duly marked.</p> <p>Students observe the given sample map of India and make corrections or refine the map accordingly.</p> <p>Reflective discussion in the class based on the questions asked.</p> <p>As per the availability</p>
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<p>4. Elaborate:</p>	<p>The teacher shows one sample map of India to understand the elements of the map.</p> <p>The teacher instructs to justify the design and marking and planning of the itinerary by asking questions with reference to the group activity of preparing maps.</p> <p>Why have you selected different routes to reach your destination? What was your priorities while preparing the itinerary? Which season have you suggested to travel to a specific place to your tourist and why?</p>	<p>of days and budget of tourists.</p> <p>Tourist budget and safety</p> <p>As per the suitable climatic conditions and the relevance of visiting specific pilgrimage.</p>
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<p>5. Evaluation and Application</p> <p>Value: Preservation of Indian Heritage</p>	<p>The teacher asks questions based on the content.</p> <p>What is the meaning of Map?</p> <p>Give examples of Parts of a Map.</p> <p>Explain the steps of 'A' Method.</p> <p>How analysing geographic Information helps in critical thinking related to Geography subjects?</p> <p>Prepare an itinerary for the tourist's visiting Goa with the help of Map.</p> <p>What mandatory protocol you as a planner would include in the itinerary to ensure the preservation of our heritage?</p>	<p>Students answer as per their observations noted down.</p>
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Closure: Today we have learned-

- 'A' Method of teaching geography
- Steps of 'A' Method of Teaching Geography
- Meaning of Map
- Important units of Map
- Drawing Map
- Important of Geographical location

Recapitulation:

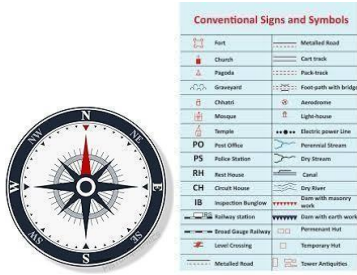
'A' Method of teaching geography is important to create questioning skills to get logical reasoning for understanding geographical phenomena.

Use of instructional Material:

Content Points where it is used	Description (How/where it will be used)
<ul style="list-style-type: none"> ➤ Arrange (Organise) Geographic Information ➤ Element of Map 	<ul style="list-style-type: none"> ● □ Map of India

Subject: Pedagogy of School Subject: Geography

Topic: Unit 4 & 5- Teaching- Learning Resources - Maps , **A** Method

Teaching Points	Teaching points
<ul style="list-style-type: none"> ➤ Element of Map ➤ Instruction: <ul style="list-style-type: none"> Distance Route Mode of travelling Planning <ul style="list-style-type: none"> -Best Time -Cost -Stay Precautions 	<p>Symbols</p> 

Testing of Learning:

- What is the meaning of Map ?
- Give examples of Parts of a Map.
- Explain the steps of ‘A’ Method.
- How analysing geographic Information helps in critical thinking related to geography subjects ?
- How analysing geographic Information helps in critical thinking related to geography subjects ?

Home Assignment:

- 1) Plan a lesson for 9th std students with the help of ‘A’ method of teaching geography by using cooperative learning technique.

WORKSHOP REPORT



The National Level Training e-Workshop
on
The Active Learning Methods and Strategies in line with the National
Education Policy, (NEP 2020)

Dr. Savita Manchekar

The two-day e-workshop on **The Active Learning Methods and Strategies** in line with NEP 2020 was jointly organised by Vidya Vikas Education Trust's.

The Lord's Universal College of Education and Gandhi Shikshan Bhavan's Smt. Surajba College of Education, Mumbai on 1st & 2nd December 2023.

The e-training workshop was of 30 Hours duration divided into two phases.

In the first phase, two days on-campus sessions of active training on a virtual platform were conducted wherein expert resource persons oriented and enriched the participants' understanding of the various ideas and concepts involved in the undertaken methodologies and strategies.

Six resource persons from the states of Maharashtra and Kerala were roped in to share their views on the themes of their expertise. The sessions were followed by active online group work to get hands-on learning experience of designing the lesson plans on innovative active learning methodologies.

Around 46 participants from different parts of Bharat were involved in the workshop.

On Day one (1st December, 2023) of the training, the inaugural address and the Keynote speech of the e-Workshop was delivered by Prof. Dr. Sybil Thomas, Department of Education, University of Mumbai on the topic, '**NEP & the role of Teacher Education.**' Madam stressed on the significance of the overhauling of the teacher's responsibilities to empower the next generation to mould them towards becoming proficient citizens. This process requires the teachers to change their roles as the facilitators of students' self-learning thereby to empower themselves as well. In this direction, as madam explained, a need to empower teachers at three levels: Psychological, Organisational, and also at the level of Community empowerment is necessary.

Dr. Sybil further discussed the challenges that a teacher faces and listed and elaborated on the measures to face these challenges effectively by playing the role of Knowledge transmitter, Knowledge creator and also an investigator.

The session was concluded with the need to take vows to build up ethical ground to earn deserving respect in the society as an academician. The very first vow as madam stated was Socratic oath for valuing the doubting and questioning to help students develop spirit of inquiry. The second vow is to value the students' learning of making the choice of educational goal for themselves. The educator has to provide learners an opportunity and scope for the choice of educational goal for which the contribution of the curriculum makers, the school culture and the teachers' empowerment and capacity building to lead the students to formulate their thought process to make their own academic choice is important. The third vow as madam stated was **valuing intellectual humility** which implies empowering or giving freedom to teachers to admit the mistake or not being able to answer the query of the students if any without carrying any ego issue and go back fully equipped to correct self. Also if the learner is not able to perform as per the expectation, rationalising through reflective discussion instead of directly rating it as good or bad.

The fourth vow in connection with the earlier vow is valuing the rationally justified responses that makes the educators and students the co-learners.

Madam beautifully connected the theme of the Webinar on active learning methods and strategies by affirming that if these vows are valued the outcome of the experiential learning or the Case based learning can be very natural and truly be applicable to real life situations.

The second session was on the topic '**Experiential Learning – What and Why?**' by an expert corporate trainer, Dr. Shriharsh Kaushik who has mastery over the said strategy and has secured Ph.D. in the area of Experiential Learning.

The session started with the resource person sharing his experience about the training on experiential learning through games and similar other activities that sir conducted in corporate organisations. Dr Kaushik stated that the corporate employees are trained in experiential learning with the purpose of developing capacity building in accomplishing organisational tasks and improving the performance thereby creating the win-win situation for organisation and self.

According to sir, experiential learning creates the scope for first hand learning experience for the participant that leads to the learning and competency development parallelly through the process of facilitation and reflecting. The strategies for out-bound training as listed by sir are Project work, Simulation, Games and other similar group activities where the participants are mentally and physically active. Such strategies result in successful transfer of training in the real situation that helps both the Institution as well as the learner.

Sir further expressed that such experiential learning strategies also contribute in behavioural changes, developing positive attitude and capacity building in soft skills like communication skills, problem solving, leadership, interpersonal relation time management etc.

The outcome of the session was very positive and participants seemed to have been inspired to try out the experiential learning strategies during and after the workshop.

The next session commenced on the topic **‘The Blend of Constructivism and Bloom’s Taxonomy and Active Learning.’** which was essential for the participants to understand the strategies considered in the workshop from the philosophical perspective. The resource person, Ms. Soma Guha, faculty of The Lord’s College of Education and expert in human psychology briefly explained, theoretical base of the constructivism in the learners’ process of Learning to learn and elaborated the various stages of Constructivist Approach — Engage, Explore, Explain,

Elaborate and Evaluate and how the Bloom’s Taxonomy can well be blended to ensure developing Higher Order Thinking among learners to reflect and apply the constructed new knowledge in the real life situation.

Concrete illustration was followed by showcasing a model lesson plan. **The participants were provided with the Lesson plan templates after the session along with the Rubric for self-evaluation of the plan.**

Session **four** dealt with the topic **‘Application of Experiential learning to design the lesson plan’**. Prof. Dr. Sunayana Kadle, Principal In-charge, Gandhi Shikshan Bhavan’s Smt. Surajba College of Education was the resource person.

The session was dealt in detail with adequate examples on the various stages of Experiential learning — **Concrete experience:** where learners are engaged in situations based on real life, **Reflective observation:** where learners explore the situation and link them with previous knowledge, **Abstract conceptualisation:** where analysis of the concrete experience is done using logic and ideas to critically understand the cause and effect of the situation undertaken as a task and **Active experimentation:** where learners practically try out the claims made.

The Lesson plan template along with the self-evaluating rubric were shared with the participants to use during the group work which was followed after the session in virtual breakout rooms. Each group discussed the lesson plan of experiential learning and prepared a rough draft of the lesson plan based on the group discussions. After 30 minutes of group discussion, the participants came back to the main e-Workshop room and presented their lesson format. Dr. Sunayana Kadle helped them get better clarity through the reflective discussion for their forthcoming field activities.

The Day Two (2nd December, 2023) started with the fifth session on the '**Active Learning methods in the context of NEP 2020**' conducted by the resource person, Prof. Dr. K.Y. Benedict, Principal, Mother Teresa College of Education from Kozhikode, Kerala.

Sir focussed on the major milestones in the Indian education scenario and highlighted the significance of active learning methods highly recommended by NEP 2020 for the purpose of holistic development.

Dr. K.Y. Benedict mentioned the key highlights of the New Education Policy (NEP) 2020 like Holistic and Multidisciplinary Education, Universalization of Education, Flexible Academic Structure, Emphasis on Skills and Experiential Learning, Use of Technology, etc.

Sir defined active learning as an onset of instructional strategies and approaches that would encourage students to participate actively in the teaching-Learning process and listed the suitable diverse methodologies like problem-based learning, collaborative learning, experiential learning, flipped classrooms, and inquiry-based learning.

Sir further stated that these strategies and methodologies focus on fostering critical thinking, problem-solving skills, and practical knowledge application.

The session enhanced participants' clarity on the task that they would be working on.

The next session was on the topic of '**Scaffolded Problem Based Learning Strategy**' conducted by Dr. Vaishali Sawant, an Associate Professor, Hansraj Jivandas College of Education, Mumbai. Madam emphasised on the importance of learning material as a scaffolding to be used to make an attempt to resolve the issue hidden in the given problematic situation which is the essence of the Problem based method. In this line, a problem was presented to the participants, and they discussed the problem in various breakout rooms assigned and later presented solutions in different perspectives in the main group. The lesson template was shared with the participants for further clarity on the concept.

Session seven dealt with the topic '**Scenario Based Learning and Designing Lesson Plan**'. The session was conducted by Dr. Veena Deshmukh, former Deputy Director, Centre for Distance Education, SNDT University, Mumbai. The highlight of the session was E3 teaching for E3 learning — Effective, Efficient and Engaging. The importance of balance between skill and learning was emphasised. The session promoted application of learning which ensured a holistic development in the learners. In the group work, the participants were encouraged to think about the scenario and apply their skills while presenting the matter. Madam mentored the groups for better clarity.

The **Valedictory Address** was delivered by **Dr. Narendra Deshmukh**, Senior Scientific officer, Homi Bhabha Centre for Science Education, TIFR, Mumbai. The pedagogical focus of **NEP** was highlighted by the resource person. The session also highlighted the importance of Multipronged Approach, Critical Pedagogy and Culturally Responsive Pedagogy which are the need of the time.

In the second phase, after the two days training, participants were given 10 to 15 days time to design the lesson plans on the strategies of their choice and implement it at their workplaces. They were guided by the faculties of both the host institutions throughout their field activities including preparation of plans and implementing in the actual classroom scenario.

The product thus created in the entire 30 Hrs. of e-Workshop by the participants properly edited and enclosed in the present compilation would serve as the handbook for all the readers to try out at their workplaces.

Thus, the entire venture proved to be real experiential learning in the form of learning -to-learn.

This was an attempt of the Institutions to help teachers to take the initial step towards implementation of the **New Education Policy** with ease in their profession.

The compilation of these refined lesson plans and a special journal on articles authored by a few participants will soon be published for the benefit of the larger teacher community.

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