

Learning Teaching Plan(LTP) - Science

TOPIC	Natural Resources
SUB-TOPIC	Human impact on natural resources and their conservation
DURATION	70 mins

CURRICULAR GOALS	CG3 : Explores the living world in scientific term
COMPETENCIES AS PER NCF/NIPUN BHARAT	C3.3 Analyses patterns of relationship between living organisms and their environments in terms of dependence and response in each other.
SDG(Sustainable Development Goals)	SDG 15 Life on land

Collaborative Learning approaches	Jigsaw technique
Visual thinking routines/tools	Exit Ticket

Assessment - Of Learning(AOL)/ For Learning(AFL)/ As Learning(AAL)	AAL - Peer learning and assessment through Jigsaw approach
Cross-Cutting Themes	Caring for the environment, Value integration

Previous Knowledge Required	Knowledge about natural resources and types of energies used in day to day life
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Specific Learning Outcomes
Students will be able to
explore different types of natural resources and the importance of their conservation. **[Fulfil C3.3]**

Note to teacher: *The methodologies in the table below referred to as assets are used to explain or teach the concept. To learn more about these asset types, please refer to the Graphic Organiser (GO) provided at the end of this document.*

Methodology (Asset types)	Description of task	Teacher tasks	Student tasks	Time (Mins)
Inquisitive Questions(IQ)	Questions: - What is the fuel used in your home for cooking? - What happens if we don't have any single resource like soil/water/trees..in our environment?	Ask the questions and allow maximum participation.	Participate in the interactive session	10
Suggested Activity (SA)	Jigsaw approach- Human impact on natural resources and their conservation. <i>List of resources:</i> Soil Sun Water Forest Air Coal and petroleum To understand Jigsaw technique refer to Note SA1.1	a) Divide the class into Home groups with 6 members each and assign one resource to each member in the group. b) Give instructions about the technique and the guideline pointers based on which they will prepare for each resource. 1.Importance of the resource 2.Human impact on the resource 3.Conservation strategies c) Monitor group interactions, clarify misconceptions, and ensure all students participate.	a)Refer to the various sources to gather information about their resource b)Collaborate with their team members c) Prepare charts with key points for presentation d) If possible, prepare a questionnaire for assessment e) Explain with the help of a chart to their home group.	In Expert group -25 mins Home group presentation - 30 mins

Learning Teaching Plan: Science- Nature's Treasures

Value Integration	Exit ticket -Write a pledge to undertake any simple practice you will do to conserve any of the mentioned resources	Ask students to write the pledge on a paper and put them on class notice board	Write the pledge	5
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Note: SA1.1

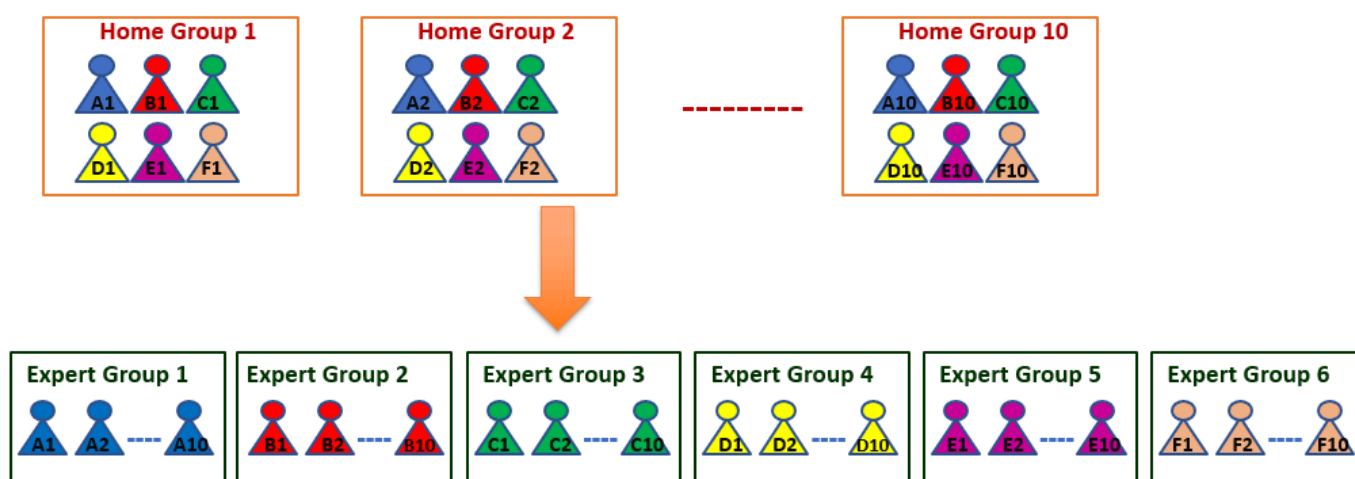
Jigsaw technique

Aim : To explore about 6 resources , human impact on them and their conservation strategies through a collaborative approach.

Materials Required : Chart paper, colour pencils, crayons, sketch pens, pencil and eraser, reference material(Textbook, library book, internet)

Procedure :

- Divide the students of the class into groups of 6 students each. Each student in a group is assigned one **resource (Soil, Sun, water, Air, Forest, Coal and petroleum)**. If the class strength is 42, make 7 groups. Each group should have a minimum of 6 students. If the strength of the class is not divisible by 6, few groups may have 7 students with 2 students in any one resource. These are **Home Groups**.
- Instruct each of the **Home Group** members to come out of their groups and form groups with their resource partners from other home groups. So you will have 6 groups - one for **soil, sun, water, air, forests, coal and petroleum**. These are **Expert Groups**.



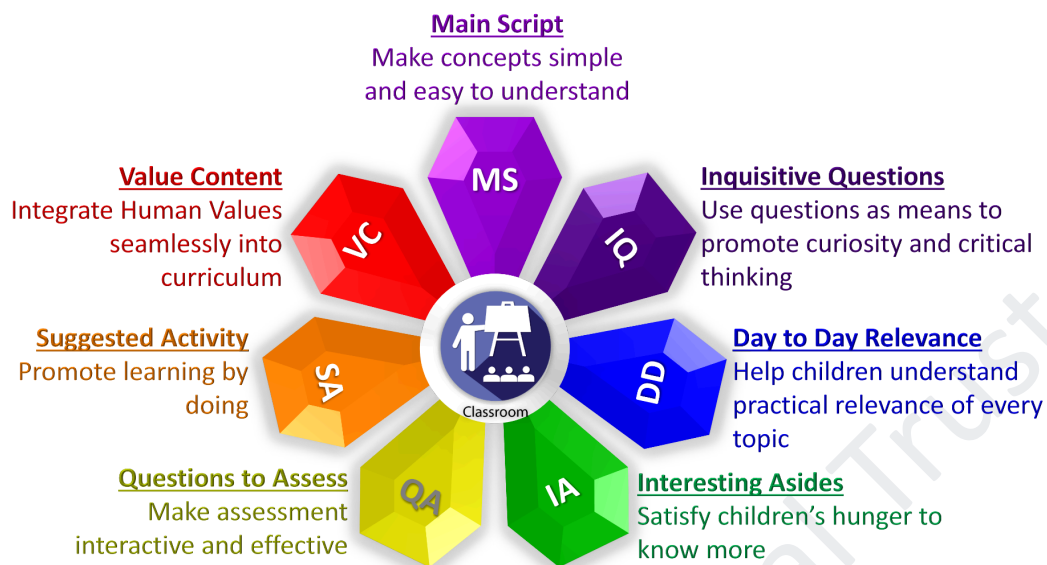
- The students in the **Expert group** will collaborate to find and explore their '**resource**'. They will study and gather information about their '**resource**'. They can choose to divide the topics amongst

themselves - two of them may prepare about importance, another 2 may find out about the impact of human activities, and another two about conservation strategies. They pool all their learnings and prepare charts which they can use for presentation in their home groups.

- Oversee that each **Expert group** collaborate among themselves and bring out the required points. they may even make a questionnaire to assess their group's understanding.
- Give 25 minutes time for this task.
- Ask students to come back to their original **Home groups** and present what they had learnt in the **Expert groups** with other members of the home group. Give 30 mins for this part of the activity.
- Ensure that each and every member of all groups have a thorough knowledge about each resource.

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7 Assets [Components] of SSSVV



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