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APPENDICES

Appendix 1

SOCIAL SCIENCE ACADEMIC ACHIEVEMENT TEST

PART 1 (GEOGRAPHY)

Personal Information

Name- _____ **Class-** _____

Gender-_____ **Age -** _____

Locality-_____

Instruction:

The questions are related to Social science subject prescribed by SEBA board. All the questions are compulsory to attempt. The time limit to complete all the questions is 1 hours.

Total Marks: 60 **Time: 2 hours.**

1. Multiple Choice Questions: **Marks: 1x4= 4**

i. The cut off part takes the form of a lake or beel.

a. Horse- shoe lake b. Flood Plain

c. Natural Levee d. Hydraulic action.

ii. What is the amount of Argon gas found in the atmosphere.

a. 78.08 b. 0.93 c. 0.036 d. 20.94

iii. _____are also known as rain forest.

a. Tropical Evergreen forest b. Tropical Semi-evergreen forest

c. Riverine Forest d. Tropical Moist Deciduous forest

iv. India is situated in the _____ part of Asia.

a. Northern b. Southern c. Eastern d. Western

2. Very short type questions:
Marks: 2x4= 8

i. Write the important factors related to the changes in the earth's surface?

ii. What is atmosphere and how did it form?

iii. Into how many parts does the physiography of India is divided and what are they?

iv. Classify the type of forests found in Assam with the help of examples?

3. Illustrate the different layers of Global Pressure Belt with a diagram.
Marks: 3

4. Complete the cross - word puzzle with the help of the following clues.
Marks: 3

i. A feature occurs due to erosion.

ii. A form of lake or beel

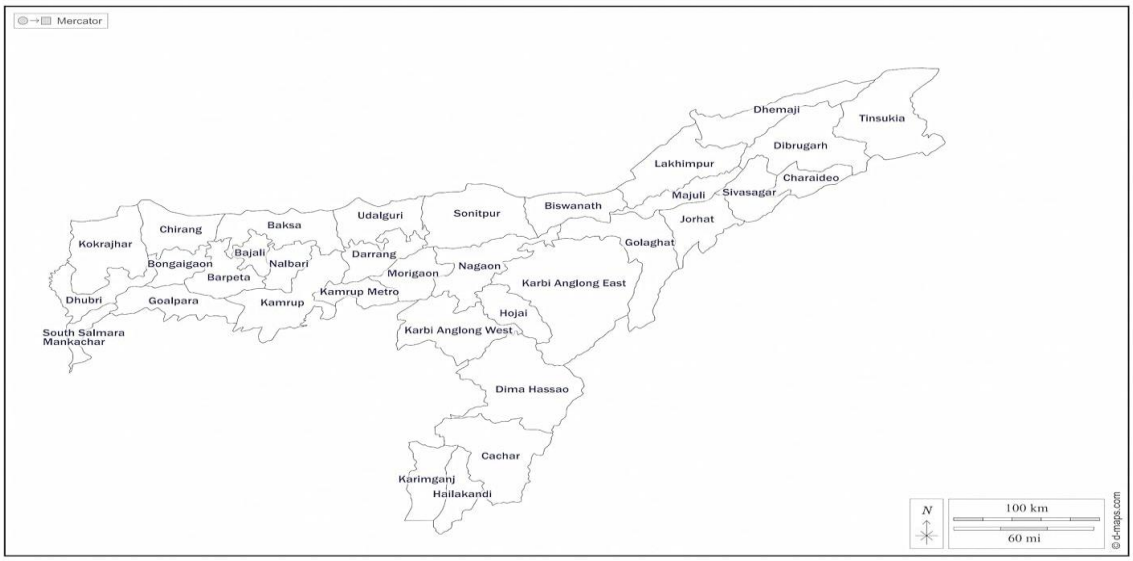
iii. Endogenic Factor.

iv. Occur due to sea- wave actions.

B	**E**	**C**	**H**	**A**	**N**	**N**	**E**	**L**	**O**	**I**
A	**L**	**O**	**O**	**L**	**A**	**E**	**R**	**I**	**T**	**P**
S	**E**	**A**	**R**	**T**	**H**	**Q**	**U**	**A**	**K**	**E**
H	**L**	**S**	**S**	**U**	**S**	**T**	**T**	**Y**	**K**	**L**
L	**T**	**T**	**E**	**T**	**H**	**R**	**O**	**R**	**R**	**T**
T	**S**	**S**	**S**	**W**	**G**	**I**	**Y**	**E**	**S**	**R**
S	**R**	**H**	**H**	**S**	**T**	**O**	**I**	**W**	**G**	**E**
E	**O**	**E**	**O**	**Q**	**Y**	**P**	**H**	**D**	**N**	**W**
U	**E**	**L**	**E**	**A**	**U**	**L**	**J**	**F**	**M**	**Q**
L	**T**	**O**	**S**	**D**	**I**	**M**	**N**	**I**	**P**	**V**

5.Mark the region with the help of the following: **Marks: 3**

i. Mark two districts with highest rainfall as A
ii. Mark two district with lowest rainfall as B
iii. Mark two Districts where tropical evergreen forests are found as C
iv. Mark two districts where Tropical Semi- evergreen forests are found as D.



6.What steps will you take in order to control the population of India? **Marks: 3**

7. What is the difference between the exogenic factors and endogenic factors. **Marks: 3**

8. Is there any relationship between population growth and migration of a country? If yes then give reasons. **Marks: 3**

9. Explain the three major works of a river**.** **Marks:3**

10. Write a poem or song explaining different types of seasons of Assam. **Marks:3**

11. Long answer type questions: **Marks: 3x4: 12**

i. Explain why the annual rainfall is not equal in various regions of Assam.
ii. Do you think the present weather of your state is normal? Justify your answer.
iii. Do you think a waterbody like Deepor Beel is getting polluted day by day? What can be the reason of this pollution?
iv. India is a country of diversified physiography. Justify the line with reasons.

12. Essay type questions: **Marks: 3x4= 12**

i. If you are given a chance what steps will you take to solve the land erosion problem of Majuli island?
ii. What measures will you take to control the amount carbon- dioxide in the atmosphere in order to make a balance?
iii. What steps do you think can be taken in flood-affected areas before the occurrence of flood?
iv. Create a poster with the help of slogans and figures in order to make people aware of saving the bio diversity of our country.

Appendix II

Performance Test Rubric in Social Science

Name of the Student:
Class:
Roll No:
Gender:

Instructions: *Some of the tasks will be given to the students. Each task will be divided into some of the categories along with rating score. The teacher will rate the students appropriately base on their performance.*

Total Score: 60

1. **Task 1 (Modelling Works of River)**

Level and Score / **Criteria**	**Imitation (Beginner) 5**	**Manipulation (Developing) 4**	**Precision (Proficient) 3**	**Articulation (Advanced) 2**	**Naturalization (Expert) 1**
Modelling Works of River	Attempts to replicate a model with guidance but lacks accuracy.	Constructs a basic model with some accuracy but needs corrections.	Creates a well-structured model with minimal assistance.	Independently builds an accurate and detailed model.	Effortlessly designs complex models with creative elements.
Use of Tools/ Materials (e.g., sand, water, rocks, clay, digital tools)	Struggles to handle tools and requires constant supervision.	Uses tools with some control but occasionally needs guidance.	Uses tools effectively with precision.	Skillfully manipulates tools to create a refined output.	Masterfully integrates different tools/materials innovatively.

Presentation & Explanation	Struggles to explain the model or process clearly.	Gives a basic explanation but lacks detail or confidence.	Provides a clear explanation with supporting details.	Explains with confidence, using appropriate terminology.	Engages the audience with a well-structured, expert-level presentation.

2. Task 2: Labeling Atmospheric Layers

Level and Score / **Criteria**	**Imitation (Beginner) 5**	**Manipulation (Developing) 4**	**Precision (Proficient) 3**	**Articulation (Advanced) 2**	**Naturalization (Expert) 1**
Drawing and Labeling Atmospheric Layer	Attempts to replicate a model with guidance but lacks accuracy.	Constructs a basic model with some accuracy but needs corrections.	Creates a well-structured model with minimal assistance.	Independently builds an accurate and detailed model.	Effortlessly designs complex models with creative elements.
Use of tool/ Material	Struggles to handle tools and requires constant supervision.	Uses tools with some control but occasionally needs guidance.	Uses tools effectively with precision.	Skilfully manipulates tools to create a refined output.	Masterfully integrates different tools/materials innovatively.
Presentation & Explanation	Struggles to explain the model or process clearly.	Gives a basic explanation but lacks detail or confidence.	Provides a clear explanation with supporting details.	Explains with confidence, using appropriate terminology.	Engages the audience with a well-structured, expert-level presentation.

3. Task -3: Map Drawing Skill

Level and Score / Criteria	Imitation (Beginner) 1	Manipulation (Developing) 2	Precision (Proficient) 3	Articulation (Advanced) 4	Naturalization (Expert) 5
Map Drawing Skills	Need assistant to draw Assam's map	Struggles to draw Assam's map with many errors in shape and details.	Draws Assam's map but misses key features (e.g., major rivers, capitals).	Draws Assam's map with minor errors in shape or labeling.	Accurately draws Assam's physical map with correct labeling and details (rivers, districts, resources).
Use of tool/ Material	Struggles to handle tools and requires constant supervision.	Uses tools with some control but occasionally needs guidance.	Uses tools effectively with precision.	Skillfully manipulates tools to create a refined output.	Masterfully integrates different tools/materials innovatively.
Presentation & Explanation	Struggles to explain the map clearly.	Gives a basic explanation but lacks detail or confidence.	Provides a clear explanation with supporting details.	Explains with confidence, using appropriate terminology.	Engages the audience with a well-structured, expert-level presentation.

4. **Task: 4: Map Reading and Navigating Skill**

Level and Score / Criteria	Imitation (Beginner) 1	Manipulation (Developing) 2	Precision (Proficient) 3	Articulation (Advanced) 4	Naturalization (Expert) 5
Map Reading and Navigation	Need assistant or support to read or identify major physical features on the map of India.	Struggles to identify major physical features on the map of India.	Can identify some major physical features but makes frequent errors.	Accurately identifies major physical features (e.g., rivers, mountains, states) on the map.	Expertly navigates and identifies both prominent and less known physical features with ease and speed.
Physical Feature Identification	Cannot identify the physical features by own	Can identify only a few major physical features (e.g., Himalayas, Ganges).	Identifies several major physical features but misses smaller details.	Identifies most physical features correctly, such as rivers, mountain ranges, and plateaus.	Demonstrates comprehensive knowledge, identifying physical features of India with precision and additional details (e.g., specific valleys, coastal plains).
Presentation & Explanation	Struggles to explain the map clearly.	Gives a basic explanation but lacks detail or confidence.	Provides a clear explanation with supporting details.	Explains with confidence, using appropriate terminology.	Engages the audience with a well-structured, expert-level presentation.

Appendix III

Students' Attitude Scale

General Information

Please fill in the following items:

Name of the Student: Locality: Urban/Rural

Gender: Male/Female Type of School: Government/Private

Medium of Instruction: English/Assamese

Name of the school and Address:

Instructions:

Following are some of the items related to your attitude towards the social science subject and each item have five responses on the basis of your level of your preference. You are supposed to give reply on any of the one response which suits your opinion towards the item by putting a tick in the appropriate column.

ITEMS	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I find social science subject interesting.				
2. I like working with maps, chart, etc.				
3. I enjoy learning about the geographical changes and the functioning and process of the nature.				
4. I feel social science subject very boring.				
5. The subject matter related to social science gives an overall understanding about the society and surrounding where we live.				
6. I enjoy giving ideas related to the conservation and preservation of the natural resources.				
7. The syllabus of social science subject is too long.				
8. Rank the subject below according to your preference- English- 1, 2, 3, 4, 5, 6 MIL- 1, 2, 3, 4, 5, 6 Science- 1, 2, 3, 4, 5, 6 Social Science- 1, 2, 3, 4, 5, 6 Mathematics- 1, 2, 3, 4, 5, 6 Elective- 1, 2, 3, 4, 5, 6				
9. The curriculum related to social science subject is appropriately designed.				

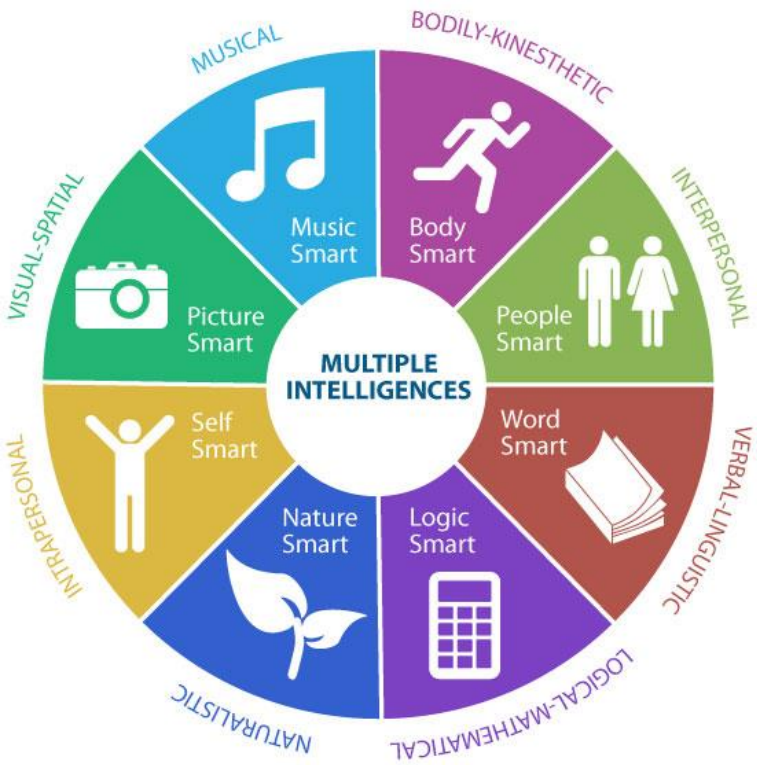
10. There is always a good teacher pupil interaction during the social science period.				
11. I stay very active during the social science period in the classroom.				
12. I find it difficult to understand the subject matter being delivered in the classroom.				
13. I feel sleepy when teacher delivers the lectures in social science period.				
14. The present way of teaching learning process in social science should be replaced by another one.				
15. I am satisfied with the way of teaching of the subject.				
16. I wish we had innovative learning aids to study social science.				
17. I feel knowing social science is knowing about our social life in a systematic way.				
18. Social science subject has real life impact and can relate it with real life scenario.				
19. It is an important subject of the curriculum.				
20. I personally feel it is important for us to know about the environment where we live.				

Appendix IV

Module

MULTIPLE INTELLIGENCE BASED INSTRUCTIONAL MODULE ON SOCIAL

(For IX STANDARD, SEBA BOARD)



CONTENT OF THE MODULE

GEOGRAPHY

Chapter 3. Geography of India

3.1.Introduction of India

3.2.Location and Size of India

3.3.Physiography of India and its divisions

3.4.Climate of India

3.5.Vegetation of India and its types

3.6.Growth and Distribution of population of India

3.7.Migration

3.8.Introduction to Indian Economy

3.9.Political divisions of India

Chapter 4. Geography of Assam

4.1. Location of Assam in the context of North-East India.

4.2. The physiography of Assam and its divisions.

4.3. The characteristics of Assam's Climate.

4.4. The characteristics and types of soil in Assam.

4.5. The type and distribution of forest in Assam

ABOUT THE MODULE

This module is an Instructional based Module prepared for the Social Science subject of class IX SEBA board and is based on the Multiple Intelligence Based Instructional Approach. It will enable one to understand the subject matter along with aims to achieve the learning competency of the students towards the subject.

This module will be based on only Geography part of social science textbook.

In the module there will be given some activities after each unit which will cover all the eight intelligence describe in Howard Gardner's Theory.

CHAPTER 1

CHANGES OF THE EARTH'S SURFACE

General Objectives of the Module-

By the end of the unit the student will develop Learning Competency in -

- The different areas of cognitive domain
- Will help in developing the affective domain of the learner by developing a positive attitude towards the unit.
- Also, will enhance the psychomotor skills of the learner through different classroom activities.

Objectives of the Unit-

By the end of the unit the student will be able to -

- To understand the Exogenic factors of change of the earth's surface
- To acquire knowledge related to the

  Works of River

  Works of Wind

  Works of glacier

  To know the sea- wave actions

Teacher's Entry Behaviour

- The teacher will provide a brief introduction about the lesson to be conducted in the class
- The teacher will administer the Multiple Intelligence Test to the students.
- The teacher will divide the classes into groups based on the activities catering to each Multiple Intelligences
- The teacher will prepare the students for various activities.

Student's Entry Behaviour

- The pupil participates in the classroom activities.

- The pupil writes the notes given in the class.
- The pupil prepares verbally of what they have learnt.

Implementation Phase

In the implementation phase the teacher will implement various activities related to the multiple intelligences to carry out the educational process. The activities related to this Chapter are as follows-

Teacher's Activity 1 (Topic covered: The earth's surface)

Name: Drawing the concept out

Intelligence type cover: Spatial intelligence, Bodily Kinaesthetic Intelligence, Verbal Linguistic Intelligence

Time required: 10 mins

Tools: Black/ White board and chalk/marker

Instruction: Draw a circle on the white/black board that represents the earth and divide it into two parts, one larger than the other. The larger portion should be labelled as oceans (hydrosphere) and the smaller portion as continents (landmasses). Label the ocean 71% and the continent 29%, and then write down the different features of both parts and their characteristics to help the student understand the differences and processes.

Student's Activity1: (Topic covered: The earth's surface)

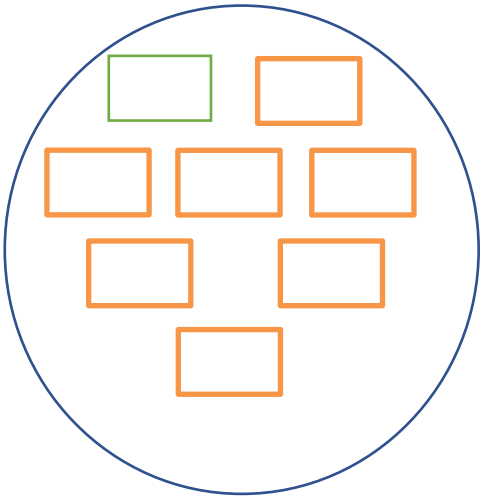
Name: Fill the circle

Intelligence covered: Linguistic Verbal Intelligence and Spatial Intelligence

Time Required: 15mins

Tools: Student's Activity worksheet

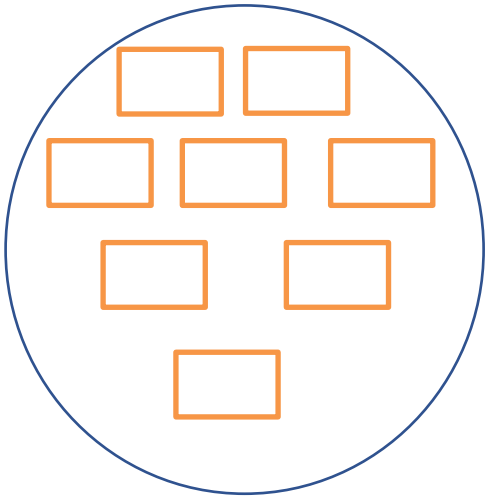
Instruction: Below some of the words related to the topic are given along with two circles with blank box. One circle representing the oceans and the other representing the continent. Choose the words that fall under the particular circles and fill the blank box. You will be given a time limit of 5 mins to complete the task.



Circle- A (Ocean)

WORDS:

Plains, submerged plateaus, ridges, hills and mountains, 29% trenches, river valleys, 71% deserts and coastal plains,plateaus, plains, and coral reefs.



Circle – B (Continent)

CHECK YOUR PROGRSS

1. What is the total percentage of land and water coverage of the earth surface?
2. What are the important factors related to the changes in the earth's surface?
3. Give two examples of each exogenic and endogenic forces.

Teacher's Activity 2 (Topic covered: Exogenic and Endogenic forces, meaning, concept and its differences.)

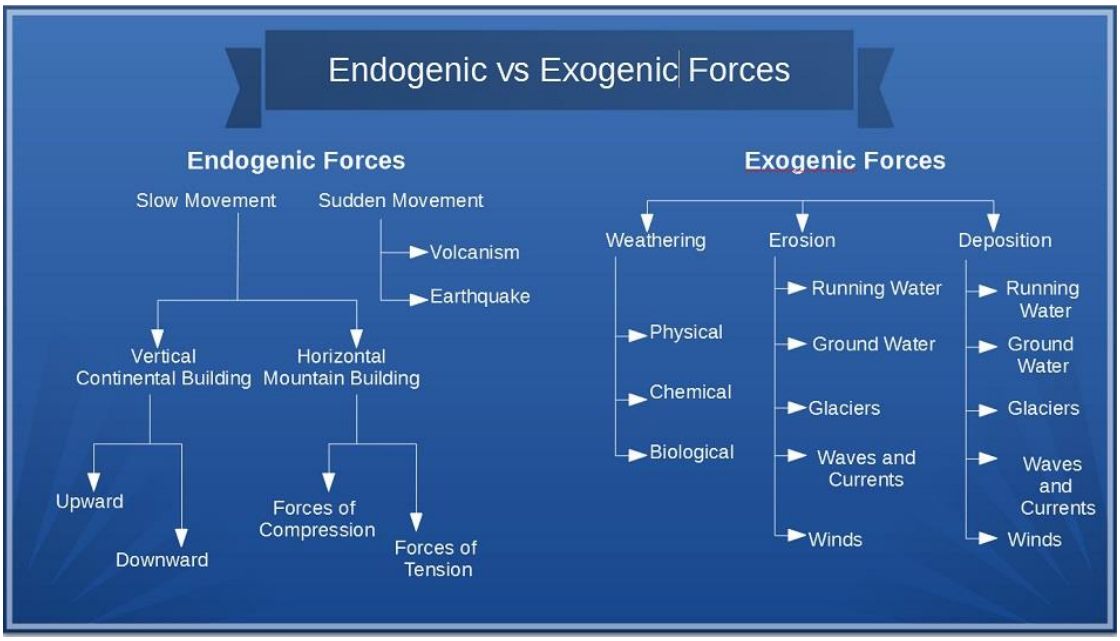
Name: Conceptual chart

Intelligence type cover: Spatial Intelligence.

Time required: 20 mins

Tools: Chart

Instruction The teacher describes the various exogenic and endogenic forces of the earth's surfaces and its different features with the help of the chart. This chart helps in distinctly differentiating the features and characteristics of two different forces of the earth's surface.



(Image Source from - https://www.latestgkgs.com/geomorphology-8337-a)

Student's Activity 2: (Topic covered: Exogenic and Endogenic forces)

Name: Buzz group

Intelligence Covered: Interpersonal Intelligence, Intrapersonal and Verbal Linguistic Intelligence

Time required: 20 mins

Instruction: After completion of the discussion of the topic the students are divided into groups of 5-6 students. Each group will be given a topic related to the topic discussed in the class. And each topic will be different with each other. And then the students will be given 10-15 mins to discuss about the topic with their group members. After that one member from each group may discuss about the topic in the classroom in the way they prefer to present the topic.

CHECK YOUR PROGRSS

Fill in the blanks:

1. The exogenic factors are basically occur _____.

2. Two major sources of exogenic factors are _____and _____.

Teacher's Activity 3 (Topic covered: Works of River)

Name: Tree model demonstration

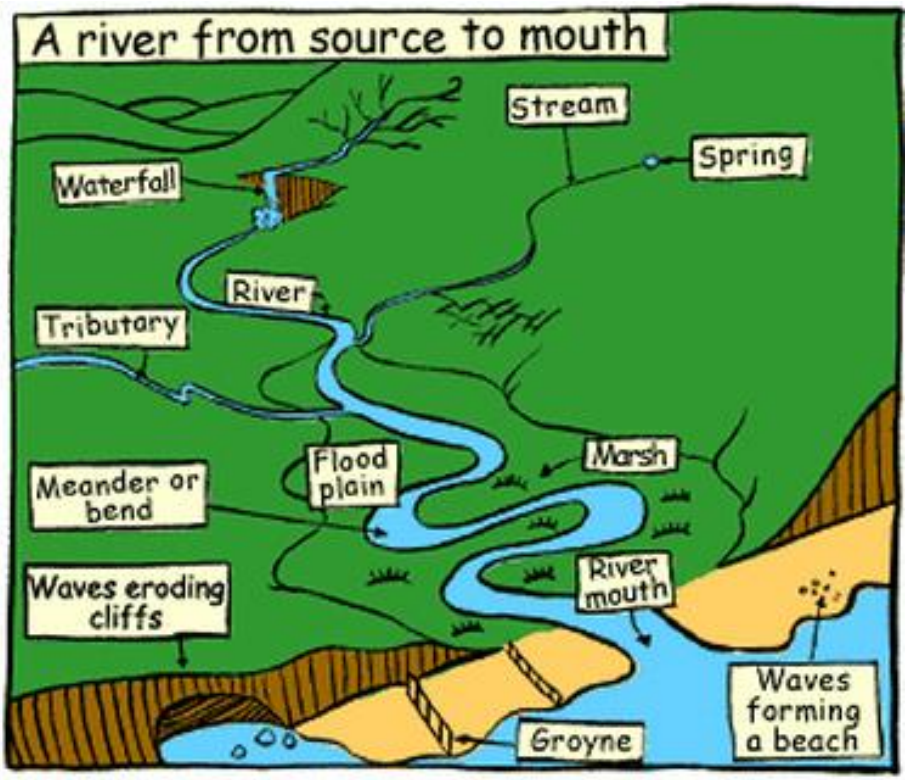
Intelligence Covered: Bodily kinaesthetic, Spatial, and Verbal Intelligence

Materials required: Chart Paper, glue, colour, marble paper, marker, hard paper

Time: 30 mins

Instruction The teacher first of all discusses the classes the main role of the river and what are the features forms due to the activities of the river. Then the teacher will demonstrate a self-prepared model structured just like a tree to explain the various works of a river. The tree is replica of the river and the branches of the tree as the river tributaries and other features. The different features created by the river with its erosional, transportational and dispositional activities will be demonstrated and explained by this model.

Idea of the Tree model demonstration:



(Image Source: http://thebritishgeographer.weebly.com/river-landforms.html)

Student's Activity 3 (Topic Covered: Work of the River)

Name: Model Demonstration

Intelligence Covered: Verbal linguistic, Spatial, and Intrapersonal Intelligence

Time required: 1 period

Tools: Paper sheet and pen/pencil.

Instruction: With the help of the waste materials demonstrate a 3d model of the process of river and label its various landforms and layers.

CHECK YOUR PROGRSS

Match the following:

1. The channel materials exposed to water flow comes under the direct action of the water	a. Flood Plain
2. Very fertile and suitable for cultivation	b. Horse-shoe lake
3. The cut off part takes the form of a lake or beel.	c. Hydraulic action
4. Settle down of boulders, pebbles and large sands in nearby takes the shape of long embankment.	d. Natural Levee

Teacher's Activity 4 (Topic covered: Work of wind)

Name: Pictorial

Intelligence covered: Verbal Linguistic, Spatial, Musical Intelligence

Time required: 20 mins

Tools: Pictures, Chart.

Instruction: The teacher carry out this session with the help of showing the students different pictures of the landforms forms due to the process of wind.

Student's Activity 4: Topic covered- Works of Wind

Name: Interactive session

Intelligence Covered: Interpersonal and Linguistic Verbal Intelligence

Time: 1 period

Tools: Notebook, Pencil, Textbook.

Instruction: After the classroom discussion is over, ask the students to list down questions related to the discussed session. And the teacher will answer to all those questions.

After finishing the question answering round a few minutes later asks the students to form group of 2 members in each.

Then ask the students to test each other by questioning with the same questions they have listed.

CHECK YOUR PROGRSS

Short answer type questions

1. What activities of wind help in the formation of geomorphic features in the desert?

2. What do the transportation process of sand and dust from one place to other called?

3. What does the low erosional hills in desert are called?

Teacher's Activity 5 (Topic covered: Works of Glacier)

Name: Pictorials

Intelligence Covered: Verbal Linguistic, and Spatial Intelligence.

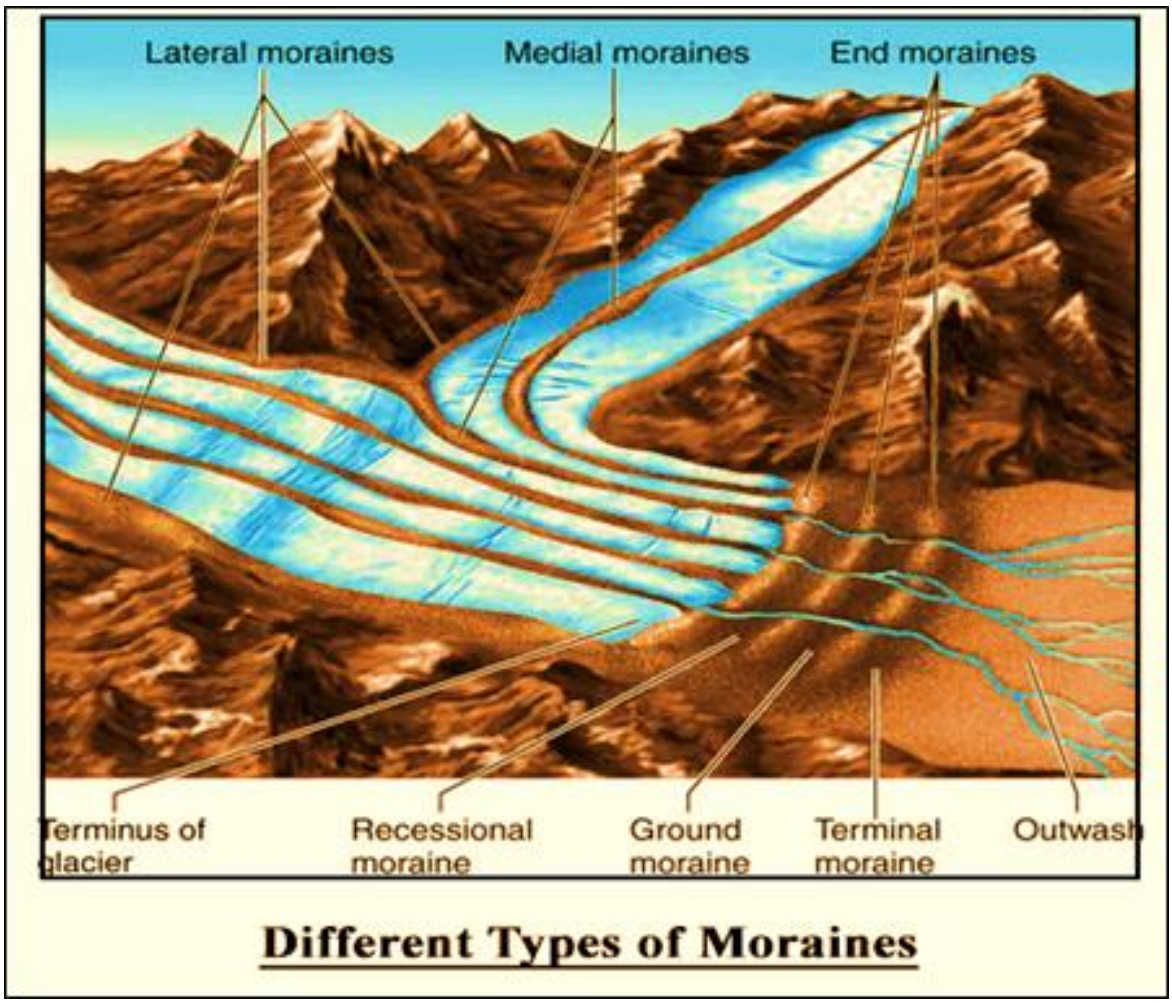
Time required: 1or two period

Tools: Pictures related to the Works of Glaciers.

Instruction:

- Before using the pictures, the teacher will give an introduction about the works of the glacier. And these glaciers are of two types – continental glacier and mountain glacier.
- The teacher will distribute the pictures of the high quality to the students.
- The teacher will show the class the pictures related to both of the types of glacier and will explain how they form, their nature, location with the help of the picture.

Example of the Pictorial



(Image source from- https://www.flexiprep.com/NIOS-Notes/Senior-Secondary/Geography/NIOS-Ch-6-The-Work-of-Moving-Ice-Wind-and-Sea-Waves-Part-2.html)

Student's Activity 5: (Topic covered- Works of Glacier)

Name: Extempore speech

Intelligence Covered: Verbal/ Linguistic and Intrapersonal Intelligence

Time required: 2 period

Tools: Sheets

Instruction:

- In this activity some words related to the discussed topic will be written on small sheets and fold it and put in a bowl.
- The students will be called one by one to pick up one sheet by each randomly from the bowl.
- Then they will be asked to give a lecture or speech on that particular word according to their knowledge and understanding of the concept.

CHECK YOUR PROGRSS

Fill in the blanks-

1. Glaciers are mainly of two types _____and _____glacier.

2. The erosion activities make the peak of the glacier sharp and conical and these peaks are called _____.

3. The materials carried by the glacier are known as _____.

4. There are four types of moraines, they are_____,_____,_____and_____.

Teacher's Activity 6 (Topic covered: Sea- wave Actions)

Name: Animated video of Sea wave actions

Intelligence Covered: Verbal Linguistic, Spatial, Musical, Naturalistic Intelligence

Time required: 1 or two period

Tools: Video film, projector, screen, laptop/ monitor/ mobile and pen drive.

Instruction:

The teacher will play a video on the sea- wave action. In between the video the teacher pauses and explains to make the concept of the video clearer.

After the video is over the teacher asks for questions from the students in order to clear doubts, or ask questions to the students for testing their attention and understanding.

Student's Activity: (Topic covered- Sea- Wave Action)

Name: Solve the problem out

Intelligence Covered: Linguistic /Verbal Intelligence

Time required: 1 period

Tools: Paper and pen

Instruction: Make groups of 2-3 students each. In this activity you will be responsible for informing the residents of Guwahati, Assam about how much time they have before a tsunami hits their residents.

Problem: An earthquake occurred 90km west of Guwahati, Assam at a depth of 25km. Calculate the time it will take for the tsunami to reach Guwahati. Remember you will have to convert units. The first team to alert Guwahati about the tsunami wins!

Solve the problem using the following formulae

$s = d/t$ [where s=speed, d=distance, and t=time. This formula will be used to calculate the time it takes the tsunami to reach Valdez after the wave speed is calculated.]

$s = \sqrt{g \cdot d}$ [where s=wave speed (m/s), g = acceleration due to gravity (which is a constant 9.81 m/s ^{2}), and d = water depth (m) where the earthquake occurred.]

ASSESSMENT CRITERIA:

The students will be assessed based on three criteria

- **Class Test:** The teacher will take class test related to this unit.
- **Performance Test:** The students will require to perform any of the task performed during the classroom activities
- **Classroom observation:** The teacher will keep keen observation at the students' attendance record, completion of the activities on time and students' engagement.
- **Self- assess scale of Attitude:** The teacher will also check the students' attitude towards the unit and the activities related to the unit.

STUDENT'S FEEDBACK:

After completion of the unit the teacher provide the students opinionnaires where-

- The teachers ask the students to share their experiences on the topic taught.

- The teacher asks the students to express their view on the methodology used to transact the topic.
- The teacher asks the students to share their views on the activities that were conducted during the process of teaching – learning.
- The students comment on the likes/ dislikes on certain activities that were used. They also express
  their difficulties if any encountered during the conduct of these activities.
- The students give suggestions on the activities used or even on the entire process of the teaching- learning situation.

CHAPTER 2

ATMOSPHERE

General Objectives of the Module-

By the end of the unit the student will develop Learning Competency in -

- The different areas of cognitive domain
- Will help in developing the affective domain of the learner by developing a positive attitude towards the unit.
- Also, will enhance the psychomotor skills of the learner through different classroom activities.

Objectives of the Unit-

By the end of this unit the student will learn about the-

- Atmosphere
- Structure of Atmosphere
- Extent of Atmosphere
- Atmospheric pressure and its measurement
- Wind and the factors of origin and movement of wind
- Name and measurement of wind
- Classification and Characterisation of wind.

Teacher's Entry Behaviour

- The teacher will provide a brief introduction about the lesson to be conducted in the class
- The teacher will administer the Multiple Intelligence Test to the students.
- The teacher will divide the classes into groups based on the activities catering to each Multiple Intelligences
- The teacher will prepare the students for various activities.

Student's Entry Behaviour

- The pupil participates in the classroom activities.
- The pupil writes the notes given in the class.
- The pupil prepares verbally of what they have learnt.

Implementation Phase

Teacher's Activity: (Topic covered- Atmosphere)
Name: Narration Cum Discussion Method
Intelligence Covered: Linguistic/ Verbal Intelligence
Time required: 25 mins
Tools: Black/White Board

Instruction: The teacher teaches this topic with the help of narration cum discussion method. In this method the teacher narrates the topic and put questions in between in such a way that leads to develop the lesson to be present.

Student's Activity: (Topic covered- Atmosphere)
Name: Question Answer round
Intelligence Covered: Linguistic/ Verbal Intelligence
Time required: 20 mins
Tools: Paper and Pen

CHECK YOUR PROGRSS

Short Questions:

Q1. What is the approximate height of Atmosphere from the earth's surface?

Q2. The atmosphere is made up of which substances.

Q3. Name the dangerous ray of sun which the atmosphere prevents from entering the earth.

Teacher's Activity: (Topic covered- Structure of Atmosphere)

Name: Educational Video

Intelligence Covered: Spatial Intelligence

Time required: 25 mins

Tools: Projector

Student's Activity: (Topic covered- Structure of Atmosphere)

Name: Draw the Concept Out

Intelligence Covered: Spatial Intelligence and Bodily Kinestic Intelligence

Time required: 20 mins

Tools: Worksheet

Instruction: Here is shown a glass that represents the atmosphere and the glass is filled with different layers of liquids that represents various types of gas present in the atmosphere. Identify and match which layer of glass represent which gas according to the amount of the volume.

Match the following types of gases according to its volume in percentage

1. N_2

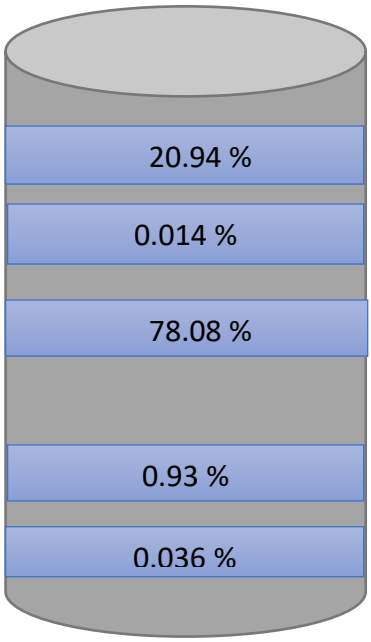
(Nitrogen)

2. Ar

(Argon)

3. O_2

(Oxygen)



4. CO_2

(Carbon Dioxide)

5. Ne

(Neon)

CHECK YOUR PROGRESS

Fill in the blanks

1. _____ and _____ predominate among the different gases in the atmosphere

2.The amount of carbon dioxide in the atmosphere has gradually increased and as a result, the temperature of the atmosphere is rising and this leads to _____.

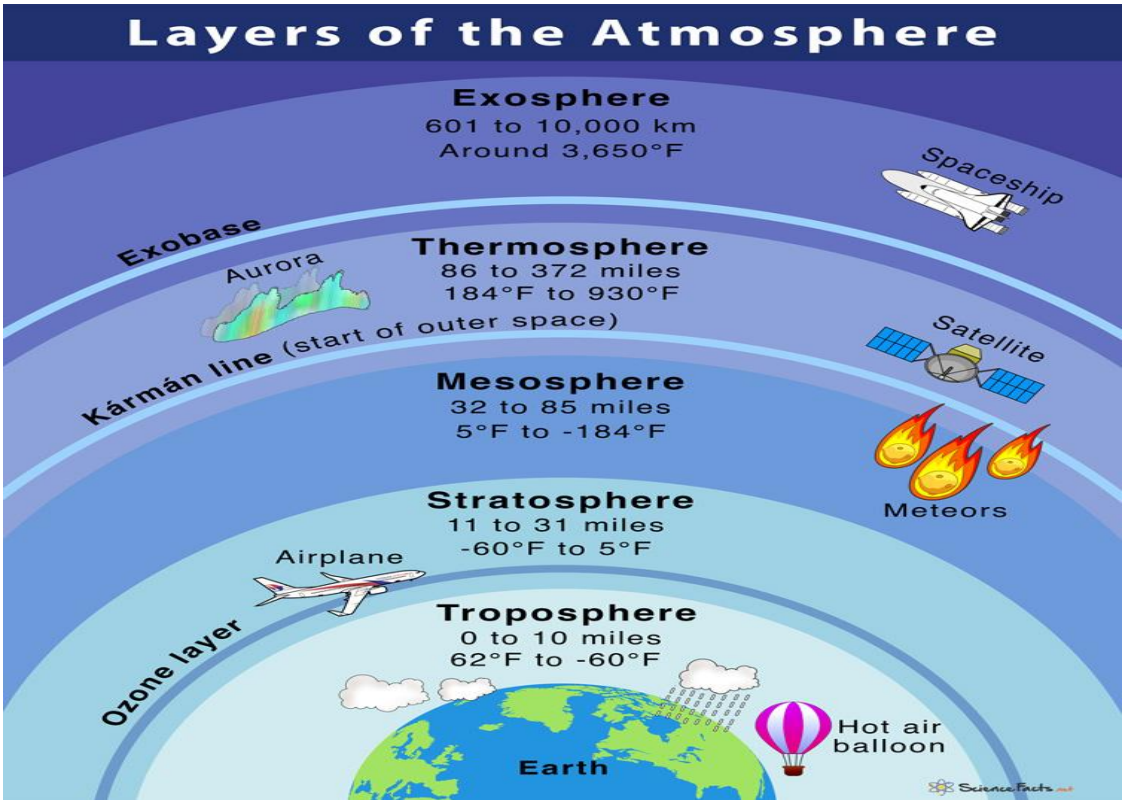
Teacher's Activity: (Topic covered- Extend of Atmosphere)

Name: Chart study

Intelligence Covered: Spatial Intelligence and Logical/ Reasoning Intelligence

Time required: 25 mins

Tools: Charts



Source: Sciencefacts.net,2023 (https://www.sciencefacts.net/layers-of-atmosphere.html)

Instruction: The teacher will deliver the topic with the help of a chart labelling various layers of Atmosphere.

Student's Activity: (Topic covered- Extend of Atmosphere)

Name: Complete the picture

Intelligence Covered: Spatial Intelligence and Bodily kinetic intelligence

Time required: 20 mins

Tools: Paper and Picture

Instruction: There will be an incomplete chart of the atmosphere and some pictures related to each of the layers of atmosphere. Place the incomplete chart in front of the students. Divide the students into groups and call any one of the members from each group and pick up a picture, the student should place the picture at the right space in the chart. Then ask another student from the group to explain about that layer in details and why the picture is matching the chart.

CHECK YOUR PROGRESS

Short answer type question

1. What are the different kinds of layer in the atmosphere?
2. In which layer does the clouds form?
3. In which layer hydrogen and helium gases are found?

Teacher's Activity: (Topic covered- Atmospheric pressure and its measurement)

Name: Chart Study

Intelligence Covered: Spatial Intelligence and Linguistic/ Verbal Intelligence

Time required: 20 mins

Tools: Chart

Instruction: The teacher will teach various levels of atmospheric pressure and its measures with the help of Charts.

Student's Activity: (Topic covered- Atmospheric pressure and its measurement)

Name: Peer teaching

Intelligence Covered: Interpersonal Intelligence and Linguistic/ Verbal Intelligence

Time required: 20 mins

Instruction: The students will be divided into groups and provide them few topics. The Peers will teach each other and clear the doubts.

CHECK YOUR PROGRESS

Short answer type question

1. Draw a diagram labelling various levels of Atmospheric Pressure?

2. What is the tool that use to measure Wind?

3. Air pressure in both polar zones remains constant. As a result, this region of the planet is known as the Polar High-Pressure Belt?

Teacher's Activity: (Topic covered- Wind and the factors of origin and movement of wind)

Name: Drawing the Concept

Intelligence Covered: Linguistic/ Verbal Intelligence

Time required: 20 mins

Tools: Black Board/ White Board

Instruction: The teacher will explain the topic with the help of conceptual framework by using white board/ blackboard.

Student's Activity: (Topic covered- Wind and the factors of origin and movement of wind)

Name: Building Model

Intelligence Covered: Spatial Intelligence and Bodily kinetic intelligence

Time required: 20 mins

Tools: Paper and Picture

Instruction: The student will build a model based on the various factors of wind and give presentation of the demonstration in group.

CHECK YOUR PROGRESS

Short answer type question

1. What are the different kinds of layer in the atmosphere?
2. In which layer does the clouds form?
3. In which layer hydrogen and helium gases are found?

Teacher's Activity: (Name and measurement of wind)

Name: Geographical Jingle Song

Intelligence Covered: Musical Intelligence

Time required: 20 mins

Tools: Paper and Picture

Instruction: The teacher compose a jingle song in order to explain the various types of the wind.

Student's Activity: (Name and measurement of wind)

Name: Poem writing

Intelligence Covered: Musical Intelligence

Time required: 20 mins

Tools: Paper and Picture

Instruction: The students are asked to compose poem using the various types of locally available wind.

CHECK YOUR PROGRESS

Short answer type question

1. What are the different kinds of layer in the atmosphere?
2. In which layer does the clouds form?
3. In which layer hydrogen and helium gases are found?

CHAPTER 3

Geography of India

General Objectives of the Module-

By the end of the unit the student will develop Learning Competency in -

- The different areas of cognitive domain
- Will help in developing the affective domain of the learner by developing a positive attitude towards the unit.
- Also, will enhance the psychomotor skills of the learner through different classroom activities.

Objectives of the Unit-

By the end of this unit the student will learn about the-

- Introduction of India
- Location and Size of India
- Physiography of India and its divisions
- Climate of India
- Vegetation of India and its types
- Growth and Distribution of population of India
- Migration
- Introduction to Indian Economy
- Political divisions of India

Teacher's Entry Behaviour

- The teacher will provide a brief introduction about the lesson to be conducted in the class
- The teacher will administer the Multiple Intelligence Test to the students.
- The teacher will divide the classes into groups based on the activities catering to each Multiple Intelligences
- The teacher will prepare the students for various activities.

Student's Entry Behaviour

- The pupil participates in the classroom activities.
- The pupil writes the notes given in the class.
- The pupil prepares verbally of what they have learnt.

Implementation Phase

Teacher's Activity: Topic covered (Location and Size of India)

Name: Map Chart

Intelligence Covered: Spatial Intelligence and Logical Intelligence

Time required: 20 mins

Tools: Chart

Instruction: The teacher use map chart in order to explain the location of India. The teacher shows the latitudinal and longitudinal extension of the country with the help of Map.

Student's Activity: Topic covered (Location and Size of India)

Name: Map drawing

Intelligence Covered: Bodily Kinetic Intelligence and Logical Intelligence

Time required: 20 mins

Tools: Graph Paper, Colour and Pencil

Instruction: With the help of a graph draw the outline of the map of India and show the exact location of its latitude and longitude on it along with the neighbouring states and the foreign countries.

CHECK YOUR PROGRSS

Fill in the blank

1. India is located in the _____ part of the continent

2. India extends from _____latitude to _____latitude and from _____longitude to _____longitude.

3. India has a long land boundaries along _____in the West, _____and _____ in the North, _____in the East and _____and _____ in the South- East.

Teacher's Activity: Topic covered (Physiography of India and its divisions)

Name: Power Point Presentation

Intelligence Covered: Spatial Intelligence and Logical Intelligence

Time required: 20 mins

Tools: Projector

Instruction: Instruction: Use power point presentation in an innovative way in order to explain the various physiographic features of Assam. The teacher can use images, audio, maps, videos, etc to make the power point presentation more interesting and easier to catch up.

Student's Activity: Topic covered (Physiography of India and its divisions)

Name: Think and Pick

Intelligence Covered: Bodily Kinetic Intelligence and Interpersonal Intelligence

Time required: 20 mins

Tools: Paper, Colour. Pencil, Gum and Hard paper

Instruction: There will be four paper trees labelled as the Northern Himalayas, the Northern Plains, the Deccan Plateau and the Coastal Regions respectively. And some paper leaves where different types of features related to the four types of physiography is written. Now students will be divided into 3-4 members in a group. Each member of every group will come and pick up a leave and clip it up on the particular tree which the feature matches. For each correct answer the group will earn marks and if the member is incorrect the opposition party will blow horn and give the correct answer and will gain the marks. The group with highest marks wins.

CHECK YOUR PROGRSS

Short answer type question

1. What are the different types of physiographic units of Northern Himalayas.
2. Write the five plains of Northern Plain region.
3. Write the location and size of the Deccan Plateau.
4. Mention two lakes under the Coastal region of India.

Teacher's Activity: Topic covered (Climate of India)

Name: Conceptual Map

Intelligence Covered: Logical Intelligence and Verbal Intelligence

Time required: 20 mins

Tools: Black Board/ White Board

Instruction: Draw a concept map on the black board or white board in order to explain the climatic cycle of India and how the climate changes in different places due to different natural circumstances

Student's Activity: Topic covered (Climate of India)

Name: Poem and Song Writing

Intelligence Covered: Verbal Intelligence, Musical Intelligence and Intrapersonal Intelligence

Time required: 20 mins

Tools: Paper and Pen

Instruction: Write a poem or a folk song on each of the season or as a whole on the basis of its different characteristics and events.

(Tips for student: You can take help of the traditional folk song and poems for reference)

CHECK YOUR PROGRSS

Match the following

1. Highest Rainfall	a. Gujarat
2. Less amount of Rainfall	b. Himalayan ranges of Arunachal Pradesh
3.Pre - Monsoon	c. Thunderstorm
4. Pre- Winter Season	d. Decrease in rainfall

Teacher's Activity: Topic covered (Vegetation of India and its types)

Name: Classroom Interaction

Intelligence Covered: Verbal Intelligence

Time required: 20 mins

Tools: Projector

Instruction: The teacher with the help of lecture method delivers the lecture upon the various types of vegetations in India. Also interact with the students with the question answer round.

(Tips for teacher- Ask the student question about their real-life experiences and things that they can relate with their past experiences)

Student's Activity: Topic covered (Vegetation of India and its types)

Name: Work Experience

Intelligence Covered: Interpersonal Intelligence, Naturalistic Intelligence and Bodily Kinetic Intelligence

Time required: 20 mins

Tools: Gardening kit

Instruction: Collect different types of vegetable samplings from your background and plant in each suitable soil and explain the type of Vegetation. Also write about the different properties of each soil.

CHECK YOUR PROGRSS

True or False

1. Mangrove vegetations are found in Punjab . (True/False)
2. Evergreen forests are found in the north part of the Himalayas. (True/False)
3. Grassland vegetations are found in some parts of Maharashtra . (True/False)
4. Monsoonal Vegetations are found in Assam. (True/ False)

Teacher's Activity: Topic covered (Growth and Distribution of population of India)

Name: Bar Graph discussion

Intelligence Covered: Verbal Intelligence and Logical Intelligence

Time required: 20 mins

Instruction: The teacher teaches the class with the help of the population bar diagrams related to population of India

Student's Activity: Topic covered (Growth and Distribution of population of India)

Name: Statistical Analysis

Intelligence Covered: Spatial Intelligence, Logical Intelligence

Time required: 20 mins

Tools: Paper and Pen

Instruction: Make a statistical analysis of the population of India from last 10years and write a report on it.

CHECK YOUR PROGRSS

Fill in the blanks

1. The main reasons of the population growth in India are the rate of _____, _____and _____.
2. Population density is low in the parts of_____.
3. _____ is the most populous state of India.

Teacher's Activity: Topic covered (Migration)

Name: Real life issues

Intelligence Covered: Verbal Intelligence

Time required: 20 mins

Tools: Blackboard/ White Board and Documents

Instruction: The teacher teaches the topic of the migration by giving some real-life issues or current problems that are being facing by the people and the nation in a broader side due to population.

Student's Activity: Topic covered (Migration)

Name: Asking opinion

Intelligence Covered: Intrapersonal Intelligence and Verbal Intelligence

Time required: 20 mins

Tools: Paper and Pen

Instruction: The students will be asking a few opinions related to the problems of migration face by the nation. And then will ask other students whether they agree the opinion or not if yes then ask another student to give opinion and if no then ask why and ask justification.

CHECK YOUR PROGRSS

Short answer type question

1. What type of Migration is taken within the country?
2. Give an example of Intra – State Migration.
3. Write about one impact of Migration in the country.

Teacher's Activity: Topic covered (Introduction to Indian Economy)

Name: Concept Map

Intelligence Covered: Verbal Intelligence and Spatial Intelligence

Time required: 20 mins

Tools: Blackboard/ White Board and Documents

Instruction: Instruction: The teacher draws the concept of economy in a cyclic process in the black/white board to explain the student the topic.

Student's Activity: Topic covered (Introduction to Indian Economy)

Name: Doodle Art

Intelligence Covered: Intrapersonal Intelligence, Spatial Intelligence

Time required: 20 mins

Tools: Chart Paper, Pencil, Pen and Colour.

Instruction: Taking the theme as Problems related to the Economy of India the student will make doodles, or cartoons to display the concept on chart paper.

CHECK YOUR PROGRSS

Short answer type question

1. Mention one characteristics of Economy of India.
2. Mention one of the important sectors of Indian Economy.
3. Give one reason of poverty in India.

Teacher's Activity: Topic covered (Political divisions of India)

Name: Narration cum Discussion Method

Intelligence Covered: Verbal Intelligence

Time required: 20 mins

Tools: Blackboard/ White Board and Documents

Instruction: The teacher teaches this topic with the help of narration cum discussion method. In this method the teacher discusses the topic and put questions in between in such a way that leads to develop the lesson to be present.

Student's Activity: Topic covered (Political divisions of India)

Name: Group Presentation

Intelligence Covered: Interpersonal Intelligence, Musical Intelligence and Naturalistic Intelligence

Time required: 20 mins

Instruction: Divide the class into three groups as the three types of political parties. Each group need to present and campaign themselves with the help of slogans and pamphlets as a particular form of political party and present the specific characteristics of the party. They can show the nature of governing, strength weakness opportunities and thread of the party. And also, why one should vote their party.

CHECK YOUR PROGRSS

Match the following

1. Union Territory	a) Daman and Diu
2. Goa	b) India
3. Seven	c) Panaji
4. Democracy	d) Union Territory

CHAPTER 4

Geography of Assam

General Objectives of the Module-

By the end of the unit the student will develop Learning Competency in -

- The different areas of cognitive domain
- Will help in developing the affective domain of the learner by developing a positive attitude towards the unit.
- Also, will enhance the psychomotor skills of the learner through different classroom activities.

Objectives of the Unit-

By the end of this unit the student will learn about the-

- Location of Assam in the context of North-East India.
- The physiography of Assam and its divisions.
- The characteristics of Assam's Climate
- The characteristics and types of soil in Assam
- The type and distribution of forest in Assam

Teacher's Entry Behaviour

- The teacher will provide a brief introduction about the lesson to be conducted in the class
- The teacher will administer the Multiple Intelligence Test to the students.
- The teacher will divide the classes into groups based on the activities catering to each Multiple Intelligences
- The teacher will prepare the students for various activities.

Student's Entry Behaviour

- The pupil participates in the classroom activities.
- The pupil writes the notes given in the class.
- The pupil prepares verbally of what they have learnt.

Implementation Phase

Teacher's Activity: Topic covered (Location of Assam in the context of North-East India.)

Name: Map Drawing

Intelligence Covered: Spatial Intelligence and Logical Intelligence

Time required: 20 mins

Tools: Chart

Instruction: Instruction: The teacher use map chart in order to explain the location of Assam. The teacher shows the latitudinal and longitudinal extension of the state with the help of Map.

Student's Activity: Topic covered (Location of Assam in the context of North-East India.)

Name: Map drawing

Intelligence Covered: Bodily Kinetic Intelligence and Logical Intelligence

Time required: 20 mins

Tools: Graph Paper, Colour and Pencil

Instruction: With the help of a graph draw the outline of the map of Assam and show the exact location of its latitude and longitude on it along with the neighbouring seven sister states and the foreign countries.

CHECK YOUR PROGRSS

Fill in the blank

1. Assam locates in the North-East region of India with seven states and two foreign countries –_____and _____lying in its boundary.

2. Assam extends from _____latitude to _____latitude and from _____longitude to _____longitude.

3. _____is regarded as the gateway of North- East state.

Teacher's Activity: Topic covered (Physiography of India and its divisions)

Name: Power point presentation

Intelligence Covered: Spatial Intelligence and Verbal Intelligence

Time required: 20 mins

Tools: Projector

Instruction: Use power point presentation in an innovative way in order to explain the various physiographic features of Assam. The teacher can use images, audio, maps, videos, etc to make the power point presentation more interesting and easier to catch up.

Student's Activity: Topic covered (Physiography of India and its divisions)

Name: Think and Pick

Intelligence Covered: Bodily Kinetic Intelligence and Interpersonal Intelligence

Time required: 20 mins

Tools: Paper, Colour. Pencil, Gum and Hard paper

Instruction: There will be four paper tree labelled as Brahmaputra valley, Barak Valley, Karbi Anglong plateau and Barail Hills respectively. And some paper leaves where different types of features related to the four types of physiography is written. Now students will be divided into 3-4 members in a group. Each member of every group will

come and pick up a leave and clip it up on the particular tree which the feature matches. For each correct answer the group will earn marks and if the member is incorrect the opposition party will blow horn and give the correct answer and will gain the marks. The group with highest marks wins.

CHECK YOUR PROGRSS

Short answer type question

1. What are the different types of physiographic units of Brahmaputra valley.
2. Write the major northern bank tributaries of Brahmaputra.
3. Write the major districts of Barak Valley.
4. Write the location and size of the Karbi Plateau.
5. Mention two districts under Barail range of Assam.

Teacher's Activity: Topic covered (The characteristics of Assam's Climate)

Name: Conceptual Map

Intelligence Covered: Logical Intelligence and Verbal Intelligence

Time required: 20 mins

Tools: Black Board/ White Board

Instruction: Draw a concept map on the black board or white board in order to explain the climatic cycle of Assam and how the climate changes in different places due to different natural circumstances.

Student's Activity: Topic covered (The characteristics of Assam's Climate)

Name: Poem and Song Writing

Intelligence Covered: Verbal Intelligence, Musical Intelligence and Intrapersonal Intelligence

Time required: 20 mins

Instruction: Write a poem or a folk song on each of the season or as a whole on the basis of its different characteristics and events.

(Tips for student: You can take help of the traditional folk song and poems for reference)

CHECK YOUR PROGRSS

Match the following

1. Pre- Monsoon	a. High Rainfall
2. Monsoon	b. Bohag Bihu
3. Retreating Monsoon	c. Sali paddy
4. Dry Winter	d. North- East Monsoon

Teacher's Activity: Topic covered (The characteristics and types of soil in Assam)

Name: Classroom Interaction

Intelligence Covered: Verbal Intelligence

Time required: 20 mins

The teacher with the help of lecture method delivers the lecture upon the various types of soils. And interact with the students with the question answer round.

(Tips for teacher- Ask the student question about their real-life experiences and things that they can relate with their past experiences)

Student's Activity: Topic covered (The characteristics and types of soil in Assam)

Name: Work Experience

Intelligence Covered: Interpersonal Intelligence, Naturalistic Intelligence and Bodily Kinetic Intelligence

Time required: 20 mins

Instruction: Collect different types of vegetable samplings from your background and plant in each suitable soil and explain the type of Vegetation. Also write about the different properties of each soil.

CHECK YOUR PROGRSS

True or False

1. Alluvial soils are of two types 1) new alluvial soil, and 2) old alluvial soil. (True/False)

2. Lateral soil are of two types 1) red sandy soil and 2) red loamy soil. (True/False)

3. Hill soils are rich in nitrogen and organic matter. (True/False)

4. Piedmont soils are found in the northern narrow zone of the piedmont zone, which includes the Bhabar and Tarai Belts of the Himalayan foothills.

Teacher's Activity: Topic covered (The type and distribution of forest in Assam)

Name: Pictorials

Intelligence Covered: Verbal Intelligence and Spatial Intelligence

Time required: 20 mins

Tools: Blackboard/ White Board

Instruction: The teacher will show certain pictures related to the types of forests in Assam and explain their basic characteristics.

CHECK YOUR PROGRSS

Fill in the blanks:

1. _____are also known as rain forest.

2. _____forests can be seen in the riverine tracts of Kaziranga, Dibru Saikhoa and Orang national parks and Pobitora Wildlife Sanctuary.

3. _____sheds their leaves during winter.

4. Tropical Semi-evergreen forests can be generally found in the _____zone of the Brahmaputra valley.

Student's Activity: Topic covered (The type and distribution of forest in Assam)

Name: Identify the picture

Intelligence Covered: Naturalistic Intelligence and Bodily Kinetic Intelligence

Time required: 20 mins

Tools: Pictures

Student's Activity 5(Identify the picture)

Instruction: Below some pictures will be given identify the picture and write under which type of forest it falls.

Name –

Type of Forest-

Name-

Type of Forest-

Name –

Type of Forest-

Name-

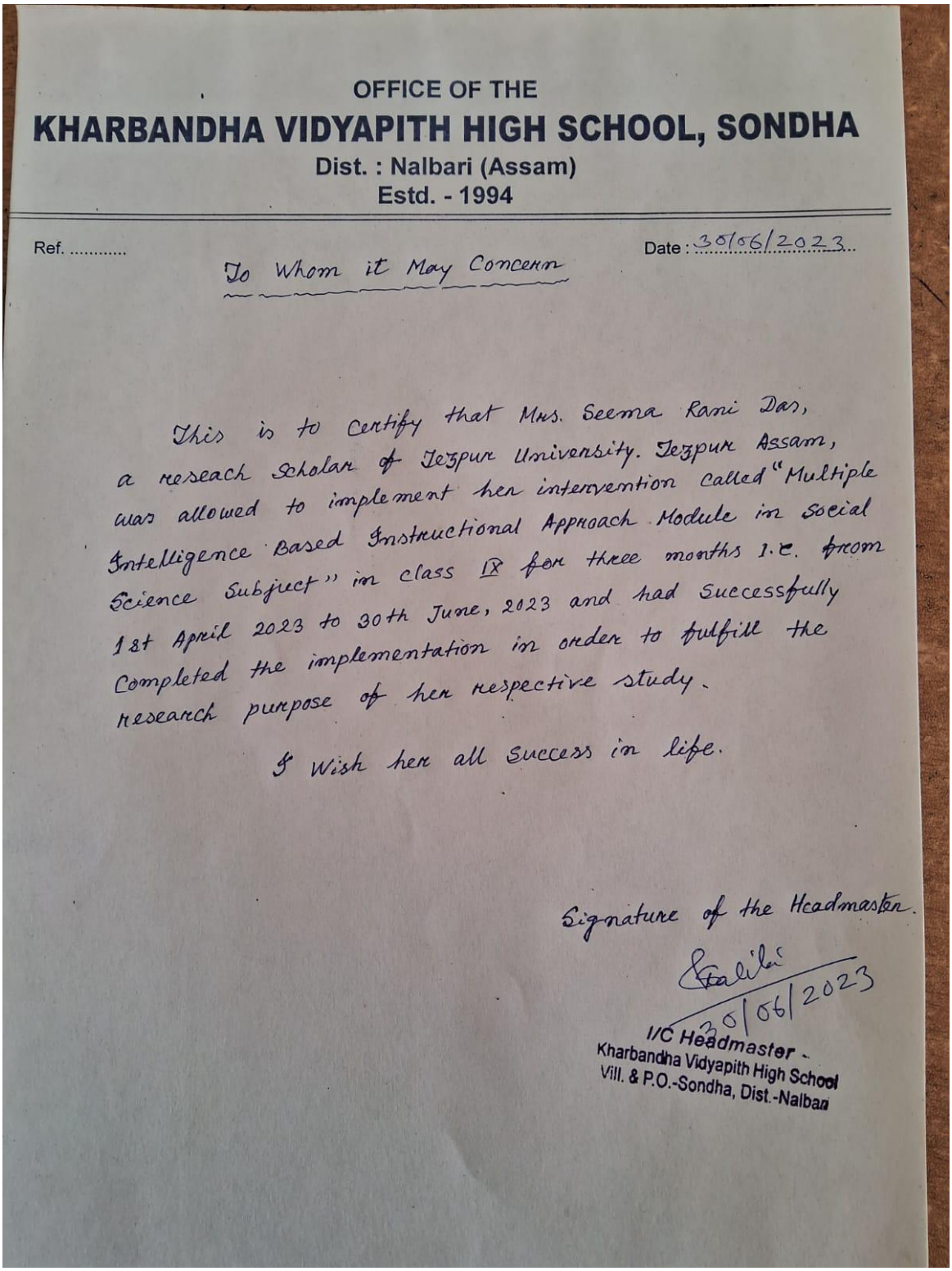
Type of Forest-

Name –

Type of Forest-

Appendix V

School permission letter-1



OFFICE OF THE

KHARBANDHA VIDYAPITH HIGH SCHOOL, SONDHA

Dist. : Nalbari (Assam)

Estd. - 1994

Ref. .....

Date : 30/06/2023

To Whom it May Concern

This is to certify that Mrs. Seema Rani Das, a reseach Scholar of Tezpur University. Tezpur Assam, was allowed to implement her intervention called "Multiple Intelligence Based Instructional Approach Module in Social Science Subject" in class IX for three months i.e. from 1st April 2023 to 30th June, 2023 and had Successfully Completed the implementation in order to fulfill the research purpose of her respective study.

I Wish her all Success in life.

Signature of the Headmaster.

30/06/2023

I/C Headmaster
Kharbandha Vidyapith High School
Vill. & P.O.-Sondha, Dist.-Nalbari

School permission letter-2

OFFICE OF THE HEADMASTER

Banbhag khata Dihjari High School

P.o.-Nankarbhaira :: Dist.- Nalbari(Assam)
PIN-781369

From,

Date.....30-06-2023

Suryya kr.Rajbongshi . B.Sc, B.Ed
Headmaster,B.K.D. High School
Phone No-9954325533

To whom it may concern

This is to certify that Mrs. Seema Rani Das, a research Scholar of Tezpur University, Tezpur Assam, was allowed to implement her intervention called "Multible Intelligence Based Instructional Approach Module in Social Science Subject" in class IX for Three months i.e. from 1st April, 2023 to 30th June, 2023 and had Successfully completed the implementation in order to fulfill the research purpose of her respective Study.

I wish her all Success in life.

Headmaster
Banbhag Khata Dihjari
High School

Appendix VI

LIST OF PUBLICATIONS

List of paper published in journal

1. Das, S. R. & Chakrawarty, S (2024). Elementary School Teachers' Perspective towards Cultivating Students' Unique Capacities for Holistic Development through Multiple Intelligence Approach. International Journal of Cultural Studies and Social Sciences, Vol 20, Issue 2, pp. 95-100. (UGC care list Journal, ISSN 2347- 4777)

List of papers presented in seminar/ conference

1. Participated and presented a paper entitled ― Multiple Intelligence Approach to students' Classroom Engagement and Academic Achievement in International Conference on Reimagining Teacher – Student Relations in the Context of Indian Knowledge Traditions: Exploring Ancient Wisdom for Contemporary Education held on 21st July, 2024 organised by Education India Research Foundation in collaboration with Bharatiya Siksha Shodh Sansthan, Lucknow.

2. Participated and presented a paper entitled ―Teachers' Attitude towards fostering Unique Capabilities of Students for Holistic Development through Multiple Intelligence Approach in Jamia International Conference on Education: Outcome Based Curriculum and Pedagogical Demands in the Post – Covid Era, held on 6-8th May, 2022 organised by Department of Teachers Training & Non – formal Education (IASE), Faculty of Education, Jamia Millia Islamia, New Delhi, India.

Appendix VII

PHOTO GALLARY


Date :13-05-2023
GPS Map Camera
Digheli, Assam, India
NH 27, Digheli, Assam 781337, India
Lat 26.453346°
Long 91.473392°