

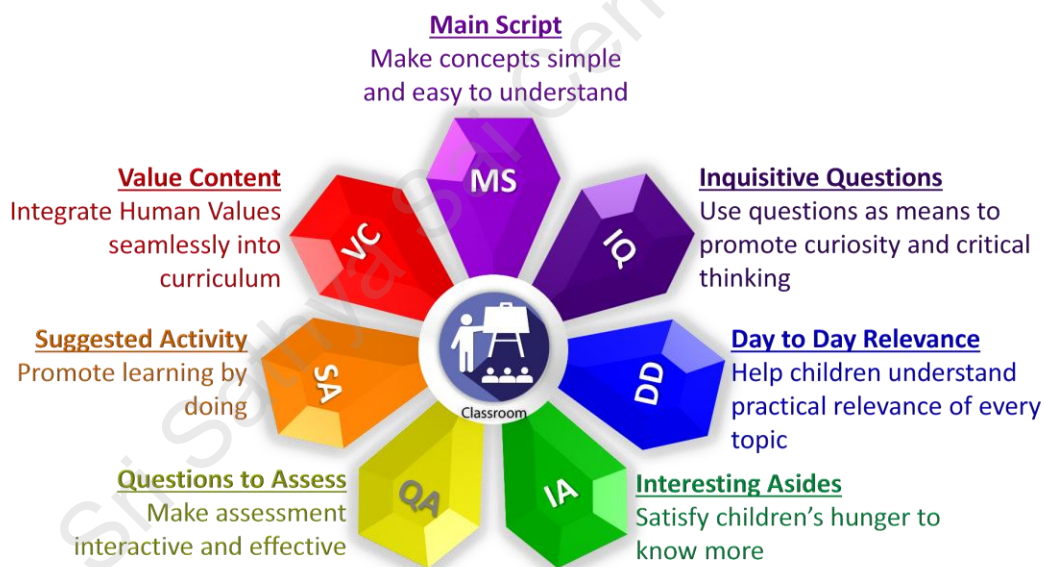
Master Lesson Plan

for

Physical Features of India

Board	Standard	Subject	Chapter	Language	Creation date
NCERT	STD IX	Social Science	Physical Features of India	English	

7 Assets [Components] of SSSVV



CURRICULAR GOALS	CG-4: Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture and the biodiversity of the region
COMPETENCIES AS PER NCF/NIPUN BHARAT	C-4.2: Explains important geographical concepts, characteristics of key landforms, their origin and other physical factors of a region
SDG (Sustainable Development Goals)	SDG-15: Life On Land
Technology aids	PPTs
Collaborative Learning	SA_Physiography of India - Diamond Six
Assessment	Framing questions for a quiz - Innovative Method - Quiz - QA_Physical Features of India - Hide and Seek
Learning Teaching Materials (LTM)	Volcanic eruption experiment Map depicting major ports of India
Interdisciplinary Connections	Correlation with Science
Cross-Cutting Themes	Values and Dispositions: Students appreciate the rich diversity in the physiographic divisions of India Educational Technology: Enriched with PPTs as teaching aids
Accommodations for Inclusive Practices	Audio Book: youtu.be/TAaiKBJxvRM Source: epathshala.nic.in/

MS_Objectives Physical Features of India

Notes to the teacher: This asset lays down the proposed plan for transacting this chapter. It states the asset objectives of the MLP. This asset is for the teacher's reference and need not be taught to the students.

Students will be able to -

- tell why the knowledge of the physiography of a region is essential
- discuss the features of the Great Himalayan ranges
- improve their awareness of the rich physiographic divisions of India and opportunities for its development
- explain the features of the northern plains
- relate the economic development of plains to its physical features
- conclude the features of the northern mountains and plains
- analyse the features of the peninsular plateau of India
- appreciate the programmes initiated by the government of India for the modernization of ports and development of coastal plains of India
- discuss the characteristics of the desert and coastal plains of India
- infer that the islands are mostly formed due to the volcanic activity
- delineate information about the islands of India
- compile information about the physical features of India
- revise the chapter Physical Features of India
- summarise the unique features of each of the physiographic divisions of India in the chapter - Physical Features of India

Time to teach	Asset type	Theme	Sub Theme
3 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Coastal Plains The Himalayan Mountains The Indian Desert The Islands The Northern Plains The Peninsular Plateau

IQ_India Physiographic Divisions

Objective: The students will be able to tell why the knowledge of the physiography of a region is essential.

Teaching Aids: NA

Notes to the teacher: The teacher may pose the following questions to the students, allow them to think and come out with as many answers as possible before arriving at a conclusion. If there is any difficulty in getting the answers, the teacher can ask leading **questions**:

Q1. Why do you think the earth's surface continuously undergoes changes?

Answer: The earth's surface undergoes changes due to the process of weathering, erosion and transportation. Various agents of erosion like river water, wind and sea waves create new landforms on the earth's surface. Besides this, movement of tectonic plates, volcanic eruptions and natural disasters also bring about changes on the earth's surface.

Q2. Accurate knowledge of the physical features of a region is essential. Comment.

Answer: Accurate knowledge of the physical features of a region helps us to know the climatic conditions, plan and develop the infrastructure for the region, be prepared to face natural calamities and develop tourism.

Q3. How do physical features impact human life in a given region?

Answer: Physical features have a great impact on the climate of a region. The climate in turn influences or determines:

- Type of crops grown
- Shelter
- Diet
- Economic activities undertaken
- Festivals celebrated and lifestyle of people living in different regions

Q4. India's physiography stands apart from the rest of Asia. Justify.

Answer: India is centrally located in the continent of Asia. The Indian subcontinent stands apart from the rest of Asia due to the mighty Himalayan mountain ranges.

Time to teach	Asset type	Theme	Sub Theme
8 minutes	Inquisitive Questions	Indian Peninsula	Major Physiographic Divisions

MS_The Great Himalayan Ranges

Objective: The students will be able to discuss the features of the Great Himalayan ranges.

Teaching Aids: PPT

Notes to the teacher: The asset contains extra information which covers details about the Himalayan Ranges. For better understanding of the topic, the teacher can cover all the points discussed or take up only the information given in the textbook.

The teacher can display the map of India depicting the physiographic divisions.

The teacher can introduce the asset by asking the students the following question:

Q1. Which physiographic divisions of India can you identify on the physical map of India?

Answer: 1. The Northern Mountains 2. The Northern Plains 3. The Peninsular Plateau 4. The Great Indian Desert 5. The Coastal Plains 6. The Islands

The Northern mountainous region is one of the most important physiographic divisions of India.

INTRODUCTION:

Our country India has practically all major physical features of the earth. The majestic Himalayas in the north, the beautiful beaches of the south, the Great Indian desert in the west and the breathtaking natural forests in the east.

Though the country has many landforms based on the major differences, the physical features are grouped under the following physiographic divisions.

India has six major physiographic divisions. These are -

- i) The Northern Mountains
- ii) The Northern Plains
- III) The Peninsular Plateau
- iv) The Indian Desert
- v) The Coastal Plains
- vi) The Islands

The Northern Mountains:

- The Himalayan Mountain system is an important natural region of India
- It was formed due to the collision of the Indian and Eurasian tectonic plates



Himalayas base camp: pixabay.com/photos/nepal-basecamp-himalayas-mountains-100983/
Attribution: chiaoyinanita

- 'Himalaya' is derived from the Sanskrit words 'hima' - snow and 'alaya' - abode or dwelling. Himalayas therefore mean the 'Abode of Snow'
- These young fold mountains stretch over the northern borders of India in the west-east direction from the Indus to the Brahmaputra
- A series of mountain ranges stretch from Afghanistan to Myanmar via India, Nepal, Bhutan and stretch more in Tibet



Pamir Knot: pixabay.com/photos/tajikistan-the-pamir-mountains-pamir-4649206/
Attribution: Makalu

- The Pamir Knot, known as the 'Roof of the World' connects the Himalayas to the high ranges of Central Asia
- The Himalayas form an arc covering a distance of about 2400 kms and are one of the loftiest and the most rugged mountain barriers of the world
- Their width varies from 400 km in Kashmir to 150 km in Arunachal Pradesh

The Himalayas consist of three parallel ranges in its longitudinal extent

1. The Greater or the Inner Himalayas or the Himadri
2. The Himachal or the Lesser Himalayas
3. The Shiwaliks or the outermost range

1. The Greater or the Inner Himalayas or the Himadri

- Himalaya is the home of several high peaks. It holds the record of having the maximum number of highest peaks among any mountain ranges in the world
- 9 of the 14 highest peaks in the world are in the Himalayas
- 40 peaks exceed 7000 metres in height

Some Highest Peaks of the Himalayas

Peak	Country	Height in metres
Mount Everest	Nepal	8848
Kanchenjunga	India	8598
Makalu	Nepal	8481
Dhaulagiri	Nepal	8172
Nanga Parbat	India	8126
Annapurna	Nepal	8078
Nanda Devi	India	7817
Kamet	India	7756
Namcha Barwa	India	7756
Gurla Mandhata	Nepal	7728

- The most famous peak is Mt. Everest, which is 8,848 metres high, located on the Nepal - China border. It is also known as Sagarmatha in Tibet. The Tibetans also call it 'Chomolungma'

Notes to the teacher: The teacher can -

- talk about the first explorers who climbed Mt. Everest - Edmund Hillary and Tenzing Norgay
- can make the students memorize the names of the highest peaks of the Himalayas using mnemonics
- explain how the words are connected to the names of the peaks of the Himalayas and make two or three students repeat the mnemonics and memorize the names of the peaks. Mnemonics to be written on a piece of paper or on the blackboard with coloured chalks

Mnemonics: As Nature is Generous, ManKind Must Keenly Develop and Nurture Nature

As - Annapurna

Nature - Nanga Parbat

is Generous - Gurla Mandhata

ManKind - Mount Everest; Kanchenjunga

Must - Makalu

Keenly - Kamet

Develop - Dhaulagiri

and Nurture - Nanda Devi

Nature - Namcha Barwa

- The Godwin Austin or K2 (8611 metres) is the second-highest mountain on earth after Mount Everest

The Names of States and Union Territories where the highest mountain peaks are located:

Highest Mountain Peaks	State/Union Territory
Kanchenjunga	Sikkim
Nanga Parbat	Jammu and Kashmir
Nanda Devi	Uttarakhand
Kamet	Uttarakhand
Namcha Barwa	Assam



Mt.Kanchenjunga: pixahive.com/photo/mt-kanchenjunga-from-charkhole/
Attribution: Soumyadeep

- Kanchenjunga (8,598 m) is located between Nepal and Sikkim
- The Greater Himalayas is a continuous range with an average height of 6000 metres
- The region consists of perennially snowbound mountains due to the presence of many glaciers like the Gangotri, Yamunotri and Siachen
- Other glaciers that descend from this range are - Chaturangi, Bhagirathi, Kharak, Satopanth, Kamet, Milam and Pindari
- Granite forms the core of the Himalayas
- The Jelep La Pass (Sikkim), the Karakoram Pass (Jammu and Kashmir), the Shipki La Pass

(Himachal Pradesh), the Nathu La Pass (Sikkim), the Bomdila (Arunachal Pradesh) are some of the important passes in the Himalayas

- The Khyber Pass connects Pakistan and Afghanistan, and the Bolan Pass in Pakistan are the important passes of the Indian subcontinent
- Manasarovar (Tibet), a sacred place is located in this range

2. The Himachal/Lesser Himalayas:

- The mountainous range lying to the south of the Himadri is known as Himachal/Lesser Himalayas
- These ranges are mainly made up of compressed and altered rocks
- Their height varies between 3,700 to 4,500 metres and their average width is 50 km



Pir Panjal: flickr.com/photos/jimish/2478293509/
Attributions: Just Jimish

- Pir Panjal range is the longest and the most important range, while Dhauladhar and the Mahabharat ranges are also prominent
- This range consists of the famous valley of Kashmir, the Kangra and Kullu Valley in Himachal Pradesh. This region is well-known for its hill stations. Shimla in Himachal Pradesh, Mussoorie, Nainital, Ranikhet and Almora in Uttarakhand and Darjeeling in West Bengal are familiar hill stations
- Some of the holy places in this range are - Gangotri, Yamunotri, Badrinath, Kedarnath and Hemkund Sahib

3. Shiwaliks/Outermost Range:

- The Shiwaliks extend from Jammu and Kashmir to Assam and they extend over a width of 10 km. in the east to 50 km. in the west
- The altitude varies between 900 and 1100 metres and the average elevation of this range is 1000 metres
- These ranges are composed of unconsolidated sediments brought down by rivers from the main Himalayan ranges located farther north
- The longitudinal valley lying between lesser Himalayas and the Shiwaliks are known as 'Duns' in the west. Some of the well-known Duns are - Dehra Dun, Kotli Dun and Patli Dun. They are known as 'Duars' in the east

Regional Divisions of the Himalayas

- The Himalayas have been divided on the basis of regions from west to east
- The part of Himalayas lying between Indus and Satluj has been traditionally known as Punjab Himalayas but it is also known regionally as Kashmir and Himachal Himalayas
- The part of the Himalayas lying between Satluj and Kali rivers is known as Kumaon Himalayas
- The Kali and Teesta rivers demarcate the Nepal Himalayas and the part lying between Teesta and Dihang rivers is known as Assam Himalayas
- Some of the regional names of the Himalayas are - Ganesh Himalayas, Langtang Himalayas, Manaslu Himalayas, Rolwaling Himalayas, Jugal Himalayas, Gauri Sankar

The Purvanchal Hills:

- Beyond the Dihang gorge, the Himalayas bend sharply to the south and spread along the eastern boundary of India
- They are known as the Purvanchal or the Eastern hills and mountains. These hills running through the north-eastern states are mostly composed of strong sandstones, which are sedimentary rocks
- Purvanchal comprises of hills namely - Abor, Dafla, Garo, Jaintia, Khasi, Manipur, Mikir, Mizo, Naga, Mishmi, Patkai Bum and Tripura
- As mountainous regions receive heavy rainfall, dense forests have developed here due to which roads and railways have not developed much

Importance of the Himalayas:

- Himalayas form a natural barrier to the Indian subcontinent
- Block the southwest monsoon winds and cause heavy rainfall to north India



Ladakh Himalayas: pixabay.com/photos/ladakh-mountains-river-himalayas-2818861/
Attributions - gauravktwl

- Prevent cold winds blowing from Central Asia and protect India from severe cold
- Their slopes have thick forests and are ideal for plantation crops like tea in Assam
- The ranges are a storehouse of minerals and the birthplace of many perennial rivers like the Indus, Ganges, Brahmaputra and waterfalls which are used to generate hydro-electric power
- The Northern Mountains are described as 'The Paradise of Tourists' due to its natural beauty
- Many hill stations and pilgrim centres like Amarnath, Kedarnath, Badrinath and Vaishno Devi temples are situated here
- It provides raw material for many forest based industries and is renowned for its rich biodiversity

Time to teach	Asset type	Theme	Sub Theme
20 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Himalayan Mountains

VC_My Beautiful Country

Objective: The students will be able to improve their awareness of the rich physiographic divisions of India and opportunities for its development.

Notes to the teacher: The teacher can show a picture of any famous waterfalls in India. The teacher can start the discussion by saying India has many wonderful locations of great scenic beauty like the one on display. Our country is very beautiful. Let us explore a little bit of its varied beauty today

Materials Needed:

- an open jar or bowl
- paper to write the topics
- timer (most mobile phones have this feature)

Concept - Value Connection

Our country, India has practically all major physical features of the earth, i.e., mountains, plains, deserts, plateaus and islands.

Each region complements the other and makes the country richer in its natural resources. The diverse physical features of the land have immense future possibilities of development.

When we become aware of the vast natural beauty and varied physical features of our country, we will strive to preserve and build upon the natural strengths of this great diversity. National awareness will result in development of pride, a sense of belongingness and a responsibility for its preservation.

Activity - 'Just A Minute!' Speech Activity

- This is a 'Just A Minute' (JAM) activity, where students speak for a minute on the selected topic
- The background situation that the teacher describes is as follows -
 - The class is planning a study tour to any one location within India
 - The aim is to enjoy the natural beauty, the fauna and flora and to report on what could be done to preserve and develop the natural beauty of that area
- The teacher divides the class into 4 groups and each group selects a speaker from

among themselves

- Four topics are written on different sheets of paper and folded into chits:
 - I am a Forest ... Speaking (here the group can fill in the name of the Forest)
 - I am a ...Beach Speaking (here the group can choose the beach they will talk about)
 - I am the ...Hill/ Mountain Speaking (the group chooses the Hill or Mountain)
 - I am the ...River/Lake/Backwater speaking (the group chooses the River or Lake)
- One student from each group picks up a chit and the members of the group discuss the topic for 4 minutes
- The speaker presents as if s/he is the desert/beach/hill/lake speaking and invites the class to visit it
- Each speaker describes why that place or region is worth visiting, what are its special features, how its resources can be used for further development and how its beauty should be preserved

Discussion Questions:

1. Name some other tourist spots worth visiting in India.
2. Can you suggest ways of preserving the natural beauty of each of these different terrains?
3. How can these tourist spots be developed to add to India's employment and economy?

Points to Ponder/reflect:

- It is a matter of pride that we belong to such a beautiful country that possesses a vast diversity of resources
- We need to be aware of our natural assets and seek to cherish, preserve and develop them to benefit us and our future generations

Time to teach	Asset type	Theme	Sub Theme
8 minutes	Value Content	Non-Violence	National awareness

MS_Northern Plains of India

Objective: The students will be able to explain the features of the northern plains.

Teaching Aids: PPT

Notes to the teacher: The asset contains extra information which covers details about the Northern Plains of India. For better understanding of the topic, the teacher can cover all the points discussed and leave out any extra points.

Entry Ticket: The teacher can start the asset by posing the following questions:

Q1. Which state is known as the 'Land of Five rivers'?

Answer: Punjab is known as the 'Land of Five rivers'.

Q2. Name the 3 major rivers that flow through the Northern Plains.

Answer: The three major rivers that flow through the Northern Plains are - the Ganga, the Indus and the Brahmaputra.

Introduction:

The Northern Plains are the granaries of the country. They provided the base for early civilisations. The Northern Plain is formed by the alluvial deposits brought by the three major river systems, namely - the Indus, the Ganga and the Brahmaputra along with their tributaries.

The Geographical Location and Extent of the Northern Plains:

- These plains occupy a very large area in North India, known as the 'Great plains of Northern India'. They are also called the 'Indo-gangetic plains'
- They are formed mostly by the depositional process of the Himalayan and Vindhyan rivers
- This fertile plain lies to the south of the northern mountains and is one of the most extensive stretches of alluvium in the world. It is one of the largest river plains of the world
- The rivers coming from the northern mountains are involved in depositional work. In the lower course, due to gentle slope, the velocity of the river decreases, which results in the formation of riverine islands



Majuli Riverine Island Image: commons.wikimedia.org/wiki/File:Majuli_Island.jpg
Attribution: Kalai Sukanta from Shillong, India

- Majuli, in the Brahmaputra river, is the largest inhabited riverine island in the world
- The plain is about 2400 km. long and 240. to 320 km. broad and spreads over an area of

7 lakh sq. km.

- The rich soil cover along with adequate water supply and a favourable climate makes it an agriculturally productive part of India
- It is a densely populated physiographic division

- The rivers split into numerous channels due to the deposition of silt in their lower course. These channels are known as distributaries

Classifications of the Northern Plains:

The Northern Plain is divided into 4 sections -

(A) The Punjab Plains (B) The Rajasthan Plains (C) The Ganga Plains (D) The Brahmaputra Plains

(A) The Punjab Plains:

- The western part of the Northern Plain is referred to as the Punjab Plains
- It lies to the northeast of the Great Indian Desert
- This plain is found over an area of about 1.75 lakh sq. km.
- It is formed by the Indus and its tributaries - Jhelum, Chenab, Ravi, Beas and Sutlej, which originate in the Himalayas
- This plain which is formed by the five rivers is called as Punjab (Panj + Ab) most of which is in Pakistan
- It acts as a water - divide (doabs - 'Do' which means two and 'Ab' means water). The two major watersheds it divides are Yamuna - Sutlej and Ganga - Yamuna

(B) The Rajasthan Plains:

- It is located to the west of the Aravalli ranges
- It covers an area of about 1,75,000 sq. km.
- It is formed by the deposition of the river Luni and the long vanished river Saraswathi



Pushkar Lake Image: commons.wikimedia.org/wiki/File:Sunset,_Pushkar_lake.jpg
Attribution: bjoern from Hamburg, Germany

- There are several salt lakes in Rajasthan. The Sambhar salt lake (Pushkar Lake) near Jaipur is a prominent one

(C) The Ganga Plains:

- It is the largest plain of India
- The Ganga plain extends between Ghaggar and Teesta rivers. It is spread over the states of north India, i.e., Haryana, Delhi, Uttarakhand, Uttar Pradesh, Bihar, partly Jharkhand and West Bengal



River Ganga Image: commons.wikimedia.org/wiki/File:Aerial_View_Ganga_River_Banks,_Varanasi_India_2012.jpg
Attribution: La Fessée

- The total area covered by this plain is about 3.75 lakh sq. km.
- The sediments deposited by the river Ganga and its tributaries such as Ghaghra, Gandak, Kosi, Yamuna, Chambal, Betwa, etc. makes it a great plain of India

(D) The Brahmaputra Plains:

- It is a low level plain located in the state of Assam and is formed by the deposits of river Brahmaputra
- It covers an area of about 56,275 sq.km. These plains create alluvial fans and marshy tracts

The Northern Plains can be divided into five regions according to the variations in relief features -

1. The Bhabar Plains:

- The name Bhabhar comes from the local perennial tall looking grass 'Eulaliopsis binata', which in Hindi is called Bhabhar and is used for making paper, rope and other fibres



Plains of Gravel and Sediments Image: flickr.com/photos/jsjgeology/25067800068
Attribution: James St. John

- These plains lie parallel to the slopes of the Shiwaliks and are known as Bhabar
- Its width varies from 8 to 16 km.
- All the streams disappear in this bhabar belt due to the porosity of the rocks and they flow underground
- This plain is made up of gravel and unassorted sediments deposited by the Himalayan rivers

2. The Tarai/Terai Tract:

- In Urdu the word tarai means - lands lying at the foot of a watershed or on the banks of a river; low ground flooded with water or a marshy ground
- This tract lies to the south of Bhabar Plains
- The streams and rivers re-emerge and create a wet, swampy and marshy region known as Terai
- This thickly forested region full of wildlife is 15-30 km wide
- Forests here have been cleared to create agricultural land
- Terai is wider in the eastern parts of the Great Plains, especially in the Brahmaputra

Valley due to heavy rainfall



Dudhwa National Park Image: commons.wikimedia.org/wiki/File:Dudhwa_%2830783128830%29.jpg
Attribution: Koshy Koshy from Faridabad, Haryana, India

- The Dudhwa National Park is located in the Terai belt of marshy grasslands in northern Uttar Pradesh, India

3. The Bhangar Plains:

- It lies above the floodplains of the rivers and presents a terrace like feature. This part is known as bhangar
- The largest part of the Northern Plain is formed of older alluvium

- This soil is dark in colour, rich in humus content, well drained and useful for agriculture
The soil in this region contains calcareous deposits, locally known as 'kankar'

4. The Khadar Plains:

- During the rainy season every year, the Khadar tracts which are low-lying areas are enriched by fresh deposits of silt, sand, clay and mud
- They are fertile and ideal for agriculture

5. The Delta:

- The triangle-shaped fertile lands at the mouth of Ganga and Brahmaputra rivers is called the Sundarban delta
- It is the biggest and fastest growing delta



Sunset in Sunderbans Image: commons.wikimedia.org/wiki/File:Sunset_in_the_Sundarbans_West_Bengal_India.jpg
Attribution: Sankara Subramanian from Bangalore, India

- It is an area of deposition as the river flows in this tract sluggishly
- The deltaic plain consists mainly of old mud, new mud and marsh
- In the delta region, the uplands are called 'Chars' while the marshy areas are called 'Bils'

Time to teach	Asset type	Theme	Sub Theme
15 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Northern Plains

DD_Economic Importance of Plains

Objective: The students will be able to relate the economic development of plains to its physical features.

Teaching Aids: PPT

Notes to the teacher: The teacher can start the asset by asking the question:

Q1. Which is the most populous state in India? Why?

Answer: The most populous state in India is Uttar Pradesh which lies in the North Indian Plain. The fertile alluvial soil, perennial rivers, good transportation network and agro based industries make it the most populous state in India.

The Northern Plains play a very important role in the lives of the people as well as in the economy of the country.



Uttar Pradesh Image: SSSVV gallery – U.P

1. Agriculture:

- Due to the availability of the alluvial soil and abundant water supply, a large percentage of people depend on agriculture for their livelihood. The Northern Plains are called the 'Granaries of the country' as they produce 60% of the food in India
- As the Northern Plains contribute a major portion of yields, they are very important for the growth of the Indian economy
- Reports have shown soil deterioration from the excess use of chemicals, fertilizers and pesticides during the green revolution



Agriculture Image:- flickr.com/photos/nithiclicks/49865736981
Attribution: Nithi Anand

- **Zero Budget Farming:**

Subash Palekar (Indian Agriculturist and Padma Shri Recipient) is the father of Zero Budget Natural Farming where no chemical fertilizers or pesticides are used to grow crops. He developed it in the mid-1990s as an alternative to the Green Revolution methods.

2. Agro based industries:

- Availability of agricultural raw materials, good transport system, huge labour force due to large population and other facilities have led to the development of several industries in this region
- Tea is grown in the rolling plains of Assam, e.g., Brooke Bond, Taj Mahal tea
- Other agro based industries include sugar, jute textile and cotton textile

3. Dairy Industry:

Gyan Dairy has 2200 village level collection centers and collects about a million liters of milk every day from 100,000 farmers spread across 6 districts in Uttar Pradesh and districts adjoining Lucknow.

4. Development of infrastructure - Highways:

As the northern plains are agriculturally rich, infrastructure like road and transport and highways are very important to transport huge amounts of food grains and fertilizers from one region to another. Some of the national highways are - The Kanpur-Lucknow National Highway (NH 25) near Jajmau, National Highway 19 which connects Delhi, Uttar Pradesh, Bihar, Jharkhand and West Bengal.

5. Areas of tourist attractions: The North Indian Plains have a large number of tourist places and pilgrimage centres that attract tourists every year. For example: Kashi Vishwanath temple, Taj Mahal, Fatehpur Sikri and the holy city of Varanasi.



Kashi Viswanath temple image:- commons.wikimedia.org/wiki/File:Ganga_Aarti_at_Varanasi_ghats.jpg
Attribution: Yusuke Kawasaki

The physical features of the Northern Plains of India support a very wide range of economic activities and thereby make it one of the most densely populated regions of the world.

Time to teach	Asset type	Theme	Sub Theme
4 minutes	Day-to-day Relevance	Indian Peninsula	The Northern Plains

QA_Northern Mountains and Plains

Objective: The students will be able to conclude the features of the northern mountains and plains.

Teaching Aids: Worksheet

Brief Introduction of the Activity: Collaborative learning

This activity is designed to encourage the students to read the content given in the textbook and frame some questions based on the content read.

Procedure: Some sample questions have been given below. The teacher can encourage the children to read and frame similar questions on the topic allocated to them.

Methodology:

- The teacher divides the entire class into 4 to 5 groups
- The topics allocated will be the Northern Mountains and the Northern Plains
- The teacher can allocate one paragraph or a subtopic to each group. Each group is given 7-8 cards
- The students are asked to read the paragraph and prepare some objective type questions covering the entire paragraph allocated to them
- They can be given 5-7 minutes to read and put down the questions on the cards given to them
- All the cards with questions are put in a box. The cards are then shuffled
- By mixing up the questions and redistributing the cards on which the questions are written randomly, a game can be played wherein each group picks up 4 cards and tries to discuss and answer all the questions correctly
- Points can be allocated according to the number of the correct responses

Sample questions:

Name the following -

1. Hills that comprise the Purvanchal Himalayas.
2. Some well known Duns in the Himalayas.
3. Some of the important hill stations.
4. The northernmost range of the Himalayas.
5. The three major river systems.
6. Type of soil deposited in the Northern Plains.
7. Total area covered by the Northern Plains.
8. Length and breadth of the Northern Plains.

Notes to the teacher: QA_Northern Mountains and Plains worksheet to be given as a homework activity.

Time to teach	Asset type	Theme	Sub Theme
10 minutes	Questions to Assess	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Northern Plains

Sri Sathya Sai Central Trust

MS_India - Peninsular Plateau

Objective: The students will be able to analyse the features of the peninsular plateau of India.

Teaching Aids: PPT

Notes to the teacher: This asset contains extra information which covers details about the peninsular plateau. For better understanding of the topic, the teacher can cover all the points discussed or take up only the information given in the textbook.

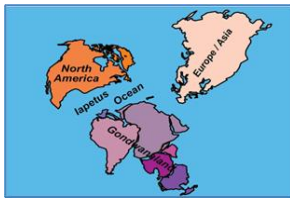
The teacher can start the asset by asking the following question:

Q1. Name the ancient landmass of which India was a part, millions of years ago.

Answer: India was a part of the ancient landmass known as Gondwanaland.

Peninsular Plateau:

- This is the oldest region of India which was formed due to the breaking and drifting of the Gondwana land



Gondwanaland Image: picryl.com/media/tectonic-development-of-the-appalachianouachitamathon-mountain-range-1-of-987007
Attribution: National Parks Gallery

- This is the largest physiographic division of our country and it covers an area of about 16 lakh sq.km (about half of the total area of the country)
- The region appears to be an inverted triangle with an average height of about 600 to 900 metres. As it is surrounded by water bodies on all three sides, it is known as the Peninsular plateau



Physiography Map of India: SSSVV Gallery

- One of the remarkable features of the peninsular plateau is its formation due to volcanic activity
- The Peninsular plateau is a tableland composed of the old crystalline, igneous and metamorphic rocks

- Large amounts of metallic and non-metallic mineral resources are found in the Indian plateau
- The plateau has broad and shallow valleys and rounded hills
- It has black soil formed due to volcanic activity

This plateau consists of two broad divisions, namely, the Central Highlands and the Deccan Plateau

A. The Central Highlands:

- The Central Highlands are located to the north of the Narmada river covering a major part of the Malwa Plateau
- The Satpura range runs in an east-west direction, south of the Vindhyas between the Narmada and the Tapi rivers
- The westward extension merges with the sandy and rocky desert of Rajasthan
- The non-perennial rivers draining this region are the Chambal, the Sind, the Betwa and the Ken that flow from southwest to northeast, thus indicating the slope
- The eastward extension of this plateau is locally known as the Bundelkhand and Baghelkhand
- The Chota Nagpur plateau rich in minerals, marks the further eastward extension and is drained by the Damodar river
- The Aravalli range is the oldest mountain that extends from Gujarat to Delhi. Guru Shikhar (1772 mts) is the highest peak on the Abu hills of the Aravalli range. The Aravali hills are located on the western and northwestern borders of the Peninsular plateau

B. The Deccan Plateau:



Physiography Map of India: SSSVV Gallery

- Deccan Plateau is the largest physiographic division of India located to the south of river Narmada
- It is a triangular landmass with an area of about 7 lakh sq.km. and the height of the ranges vary from 500 to 1000 m above sea level
- The Satpura range lies to the north while the Mahadev, the Kaimur hills and the Maikal range lie to the east
- The Plateau extends in the northeast and is locally known as the Meghalaya, Karbi-Anglong Plateau and North Cachar hills. A fault separates it from the Chotanagpur Plateau
- Three prominent hill ranges from the west to the east are the Garo, the Khasi and the Jaintia hills

1) Western Ghats 2) Eastern Ghats

1) The Western Ghats: form the western edge of the Peninsular Plateau

- They are continuous and run along the Arabian coast

- They can be crossed only through passes
- The Western Ghats extend upto 1600 kms. Near Gudalur, the Nilgiris join the Western Ghats and they rise to over a height of about 2000 mts
- Western Ghats are higher than the Eastern Ghats. Their average elevation is 900-1600 metres as against 600 metres of the Eastern Ghats
- The Western Ghats are known by different local names:-
'Sahyadri' - Maharashtra and Karnataka
'Nilgiris' - Tamil Nadu
'Anaimalai' and 'Cardamom Ranges' along the border of Kerala and Tamil Nadu
- The rivers Godavari and Krishna that originate in the Western Ghats cut across the plateau and join the Bay of Bengal
- Kodaikanal, a beautiful hill resort is situated on the Palani Hills
- The highest peaks include the Anaimudi (2,695 metres) and the Doda Betta (2,637 metres)

2) The Eastern Ghats: stretch from the Mahanadi Valley to the Nilgiris in the south

- The Eastern Ghats are not continuous
- This range is also called Poorvadri
- The Eastern Ghats join the Western Ghats at the Nilgiri hills, bordering Karnataka and Tamil Nadu
- Mahendragiri (1,501 metres) is the highest peak in the Eastern Ghats. Shevroy hills and the Javadi (Jawadhu) hills are located to the southeast of the Eastern Ghats
- The rivers Mahanadi, Godavari, Krishna, Pennar and Kaveri have dissected this range at many places
- The southernmost tip of the plateau is Kanyakumari

The plateau region being a storehouse of minerals has played a crucial role in the industrialisation of the country.

Time to teach	Asset type	Theme	Sub Theme
10 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions The Peninsular Plateau

IA_The Sagarmala

Objective: The students will be able to appreciate the programmes initiated by the government of India for the modernization of ports and development of coastal plains of India.

Teaching Aids: PPT

Notes to the teacher: The teacher can start the asset by asking the following question:

Q1. What is the total coastline of India?

Answer: The total coastline of India is 7516.6 km.

Teaching Learning Material (TLM): Let us mark the major ports along the coastline of India

What do you need?: Plain outline map of India or map of India depicting the major ports of India (whichever is available), small cutouts of images of ships (2cms) with the names of the ports written on it and double sided tape or glue/gum.

Get ready: The teacher can keep the cutouts ready before the class.

Procedure: The teacher can keep the cutouts of the images of the ships in a box and call out students and ask them to pick up 1 cutout and paste it on the map at the appropriate location. The teacher can revise the names of all the ports along the western and eastern coast of India.

The Indian coastline is the seventh longest in the world and 1/5th of the country's population lives along the coast. Ports play a vital role in carrying out the economic activities in the coastal areas. 90% of India's trade is carried out via waterways. Most of the goods that are traded pass through the Indian seaports. The Government of India has taken a great initiative to overcome issues like lack of proper infrastructure, connectivity and turnaround time.

The Sagarmala Project

The Sagarmala Project was initiated by the Ministry of Shipping of India in 2015 to modernize ports in India.

Aim of Sagarmala Project

- The Sagarmala Project has the ability to promote direct and indirect development of port-led industries and coastal communities leading to an increase in the country's GDP
- Generate employment for more than a million people
- Ensure sustainable living by promoting skills, fisheries and tourism
- Provide infrastructure to transport goods quickly
- Interlinking rail, road and water transports will reduce the cost of commodities by 5 to 6% as water transport is cheaper than other modes of transportation

States and Major Ports covered under Sagarmala Project

The states covered under the Sagarmala project include - Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh and Odisha.



India Map: SSSVV gallery

Major Ports covered under this project are - Kandla, Jawaharlal Nehru Port (JNPT), Mumbai, Mormugao, New Mangalore Port (NMPT), Cochin, Tuticorin, Chennai, Kamarajar Port Limited

(KPL), Vizag, Paradip and Haldia.

Around 202 projects out of 802 have been completed and hopefully the entire project will be fully functional by 2035.

Time to teach	Asset type	Theme	Sub Theme
6 minutes	Interesting Asides	Indian Peninsula	The Coastal Plains

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MS_Desert and Coastal Plains

Objective: The students will be able to discuss the characteristics of the desert and coastal plains of India.

Teaching Aids: PPT

Notes to the teacher: The asset contains detailed information about the desert and coastal plains in India. For better understanding of the topic, the teacher can cover all the points discussed or take up only the information given in the text.

The teacher can start the asset by posing the following questions:

Q1. Which desert in India is known as the 'Great Indian Desert'?

Answer: The Thar desert is known as the 'Great Indian Desert'.

Q2. Which day is celebrated as the Indian Coast Guard day?

Answer: Every year February 1st is celebrated as the Indian Coast Guard Day.

Q3. Name some of the economic activities in the coastal plains of India?

Answer: Shipping, fishing, farming, tourism and salt making are some of the economic activities in the coastal plains of India.

The Indian Desert (The Thar Desert):

- The Thar Desert lies towards the western margins of the Aravalli Hills. It occupies much of western Rajasthan. It is an undulating sandy plain covered with sand dunes
- This region is characterised by low rainfall (below 150 mm per year). The climate is arid with low vegetation cover
- Luni is the only large river in this region. These internal drainage rivers fill into the lakes and don't reach the sea
- In Jaisalmer, a group of barchans (crescent - shaped dunes) can be seen. Longitudinal shaped dunes are found near the Indo-Pakistan boundary
- Several hectares of desert land have been brought under cultivation due to the Indira Gandhi Canal which is 650 kms. long



Desert:wordpress.org/openverse/image/d9a03f89-b715-4c16-9e47-a5af55762679
Attribution: beontheroad.com

The Coastal Plains:

The Peninsular plateau is bound by a stretch of narrow coastal strips, running along the Arabian Sea on the west and the Bay of Bengal on the east

The Indian coastal plains are divided into two:

1. **The Western Coastal Plains**
2. **The Eastern Coastal Plains**



Image Source: Map : SSSVV Gallery – Coastal Plains

1. The Western Coastal Plains:

- The Western Coastal Plain lies between the Western Ghats and the Arabian Sea
- It extends from Gujarat to Kerala and stretches from the Rann of Kutch in the north to Kanyakumari in the south and its width varies from 10 to 80 km
- It is mainly characterised by sandy beaches, coastal sand dunes, mud flats, lagoons, estuary, laterite platforms and residual hills
- These plains provide favourable conditions for fishery
- Some of the ports along the west coast are Mumbai and Mormugao
- The northern part of the western coastal plain is known as the Konkan plain (Mumbai - Goa)
- The middle part of this plain is known as Kanara. It includes coastal plains of Karnataka. The southern part of the plain, which lies mostly in the state of Kerala is known as Malabar coast which is about 550 km long and 20-100 km wide
- This part of the coast is characterised by sand dunes
- Along the coast, there are numerous shallow lagoons and backwaters (used for navigation) called Kayals and Teris. Vembanad is a famous back water lake found in this region

2. The Eastern Coastal Plains:

- These plains along the Bay of Bengal are wide and levelled
- They lie between the Eastern Ghats and the Bay of Bengal. It stretches along the states of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu
- The coastal plain consists mainly of the recent alluvial deposits
- The shoreline is regular with well-defined beaches
- These plains formed by the rivers Mahanadi, Godavari, Krishna and Cauvery are very fertile
- These coastal plains are known locally by different names:
The coastal plain between Mahanadi and Krishna river is known as the Northern Circars (Andhra Pradesh) and the southern part between Krishna and Kaveri rivers is called Coromandel coast (Tamil Nadu). In Odisha, it is known as Utkal coast



Image Source: Map - SSSVV Gallery - Coastal Plains

- Lake Chilka in the state of Odisha, is the largest salt lake in India located to the

southwest of the Mahanadi delta, the Kolleru lake which lies between the deltas of Godavari and Krishna and the Pulicat lake which lies on the border of Andhra Pradesh and Tamil Nadu are well-known lakes in the eastern coastal plain

- The coastal plains of India provide some natural harbours which help in carrying on foreign trade
- They are useful for fishing, shipbuilding, agriculture and production of salt

Time to teach	Asset type	Theme	Sub Theme
15 minutes	Main Script	Indian Peninsula	The Coastal Plains The Indian Desert

IQ Islands of India

Objective: The students will be able to infer that the islands are mostly formed due to volcanic activity.

Teaching Aids: PPT

Teaching Learning Material (TLM): Volcanic Eruption Experiment

What do you need?: Wooden board, vinegar, baking soda, orange or yellow food colors, newspapers, fevicol, glue and all purpose flour (maida).

Get ready: The teacher has to keep all the materials ready before the class.

The teacher can ask the students to prepare a volcanic crater with paper mache, all purpose flour (maida), fevicol or glue.

Procedure:

- First put a spoonful of baking soda into the volcanic crater, add color to the vinegar and pour the solution slowly into the volcanic crater
- The experiment needs to be performed under the supervision of the teacher

The teacher can pose the following questions to the students and allow them to think and come out with as many answers as possible before arriving at a conclusion. If there is any difficulty in getting the answers, the teacher can ask leading questions.

Q1. What causes a volcano to erupt?

Answer: Volcanoes are formed by eruptions of lava and ash when magma rises through cracks or weak-spots in the earth's crust. The internal pressure and heat in the interior of the earth forces the molten rock to explode into the air causing a volcanic eruption.

Q2. How does a volcano form an island?

Answer: Volcanic eruptions on the ocean floor result in layers of lava getting accumulated over a period of time. This deposition may eventually rise above the surface of water, forming an island.

Q3. How are coral islands formed?

Answer: Coral islands are made up of corals, which are skeletons of tiny marine animals called polyps. When they die their skeletal remains accumulate on the top of the volcanic mountains. Eventually they rise above the sea level to form coral islands. Lakshadweep islands are an example of coral islands.



Q4. Why are islands important?

Answer: Islands are rich in biodiversity and have many rare species of flora and fauna. They provide defence against natural disasters. Islands play an important role in promoting tourism, serve as refuelling stations as well as a naval base.



Naval Base: commons.wikimedia.org/wiki/File:Indian_Navy_danx_banner.jpg
Attribution: Indian Navy

Time to teach	Asset type	Theme	Sub Theme
8 minutes	Inquisitive Questions	Indian Peninsula	Major Physiographic Divisions The Islands

MS_Indian Islands

Objective: The students will be able to delineate information about the islands of India.

Teaching Aids: PPT

Notes to the teacher: The asset contains extra information which covers details about the Indian Islands. For better understanding of the topic, the teacher can cover all the points discussed or take up only the information given in the textbook.

The teacher can start the asset by asking the following question:

Q1. In which Union Territories are Kavaratti and Port Blair located?

Answer: Kavaratti and Port Blair are located in the Union Territories of Lakshadweep and Andaman and Nicobar Islands respectively.

The Islands:

India has two major groups of islands namely - Andaman and Nicobar and the Lakshadweep.

1. The Andaman and Nicobar Islands:

- The Andaman and Nicobar Islands is an elevated portion of submerged mountain ranges extending from Arakan Yoma Mountain ranges in Myanmar
- These islands in the Bay of Bengal consist of 572 islands and are spread over 350 km.



Port Blair: commons.wikimedia.org/wiki/File:View_from_South_Point,_Port_Blair,_India).jpg
Attribution: (WT-en) Prateek4 at English Wikivoyage

- Port Blair is the administrative capital
- These islands are strategically important for our country
- The entire group of islands is divided into two broad categories - The Andaman in the north and the Nicobar in the south
- The Ten Degree Channel separates Andaman from the Nicobar group of Islands
- Situated close to the equator, the climate is equatorial with thick forest cover. Therefore, there is great diversity in flora and fauna
- India's only active volcano is found here on Barren Island

2. The Lakshadweep Islands:

- The Lakshadweep Islands are a small group of coral islands (27 islands) close to the Malabar coast of Kerala in the Arabian Sea

- Earlier known as Laccadive, Minicoy and Amindivi, these were renamed as Lakshadweep in 1973
- It covers a small area of 32 sq km. Kavaratti Island is the administrative headquarters of Lakshadweep
- Lakshadweep islands are separated from the Maldives Islands by the Eight Degree Channel



Bird Sanctuary: commons.wikimedia.org/wiki/File:Sterna_fuscata.JPG
Attribution: Duncan Wright, USFWS

- This island group is also diverse in flora and fauna and the uninhabited 'Pitti Island' has a bird sanctuary
- The coastal region and the islands provide sites for fishing and port activities
- Each region complements the other and makes the country richer in its natural resources

Time to teach	Asset type	Theme	Sub Theme
7 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions The Islands

SA_Physiography of India

Objective: The students will be able to compile information about the physical features of India.

Teaching Aids: PPT/Worksheet

Notes to the teacher: The teacher can give instructions and ask the students to read up the information relating to different Physiographic divisions of India before taking up the suggested activity.

The teacher can start the activity by asking the students to name the 6 Physiographic divisions of India.

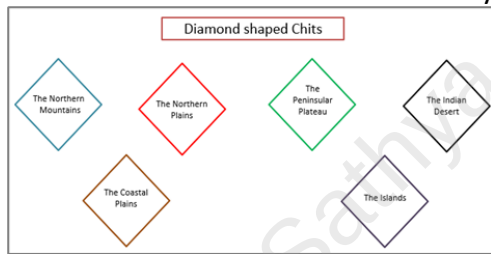
Aim: The students will be able to compare the various physiographic divisions of India.

Setting for the Activity: Indoor

Type of Activity: Group Activity - Diamond 6

Preparation of Activity:

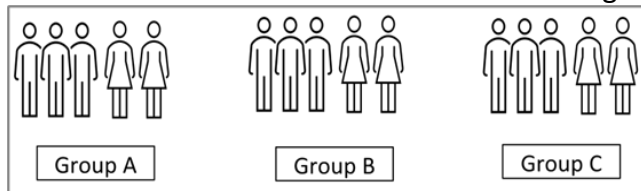
Prior preparation: The teacher can ask some of the students to make 6 diamond shaped chits and write down the names of the Physiographic divisions.



Role of the Teacher: Facilitator

Procedure:

1. The teacher can divide the entire class into groups - A,B and C...



Students - PPT icon

2. The teacher can then write the sub-topics to be covered in each of the Physiographic Divisions on the board.

a.The Northern Mountains -
Sub-topics:

The Himadri
The Himachal
The Shiwaliks

b. The Northern Plains

Sub-topics:

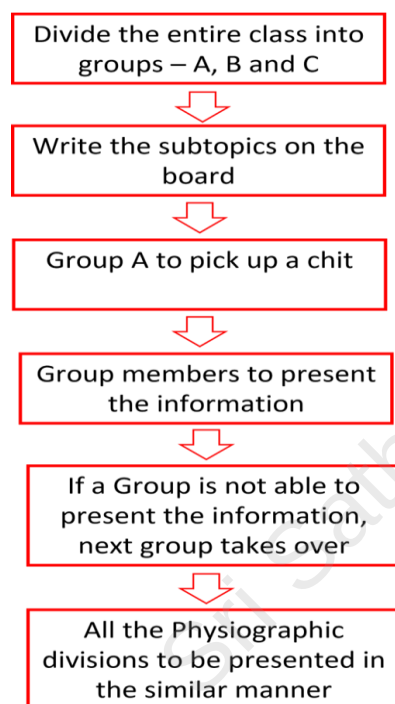
Location of the Northern Plains

Classifications of the Northern Plains

Division of the Northern plains according to the relief features

3. The teacher can ask one student from Group A to pick up a chit and the group members can discuss and present the information related to that sub-topic in 3-4 minutes.
4. If one of the groups is not able to present the information, the next group takes over and continues to present the information from the subtopic where the first group had stopped.
5. If a group is able to successfully present all the subtopics of a particular Physiographic division, they score full points.
6. In this way, each group takes turns to present the information related to the various physiographic divisions.

Notes to the teacher: Flow chart of the activity for teacher's reference only.



Notes to the teacher: The teacher can encourage the children to use the black board/outline map of India or draw diagrams to present the information.

Observation: Students work as a team and recall the information related to the 6 Physiographic divisions

Conclusion: The students in the class will be able to present the information about the distinct features of each of the Physiographic divisions of India.

Troubleshooting: If the activity cannot be conducted in a group, it can be given as a worksheet (individual activity).

Follow-up activity: Worksheet - **SA_Physiography of India** to be given as homework.

Time to teach	Asset type	Theme	Sub Theme
20 minutes	Suggested Activity	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Coastal Plains The Himalayan Mountains The Indian Desert The Islands The Northern Plains The Peninsular Plateau

QA_Physical Features of India

Objective: The students will be able to revise the chapter Physical Features of India.

Teaching Aids: Worksheets

Brief Introduction of the activity: Innovative activity - Hide and Seek

This assessment involves the whole class in creating a chain of questions and answers.

Procedure: Cut each question that is put along the dotted line so that every strip/card has an answer followed by a new question.

Sample of assessment to be conducted in the class:

Notes to the teacher: The teacher can take a printout of the questions and answers, cut it out along the dotted lines and hand it over to the students. This assessment has to be taken up in the classroom.	
Sample Questions:	
Question	Answer
Q1. (Teacher will ask the first question) Which plates collided and led to the formation of the Himalayas?	

Student 1: Answer1: The Himalayas were formed by the collision of the Indian and Eurasian Tectonic Plates	New Question: Q2. Which mountain range is known as the "Roof of the world"?

Notes to the teacher: Few examples of the questions and answers have been put up in the worksheet - **QA_Physical Features of India - 1**. The teacher can prepare questions for the entire chapter in a similar manner and keep them ready before she conducts the assessment.

Methodology:

- The teacher distributes the strip of paper/card containing one answer and a new question to all the students in the class
- The teacher asks the first question
- The student who has the answer for the question reads out the answer from the strip of paper/card
- S/he then reads out to the class the next question typed on the same strip of paper/card
- The student who has the strip of paper/card with the answer reads out the answer and

the next question

- The chain of questions and answers continues with each child reading out the answer to the question asked, followed by reading out a new question
- **As each student is required to respond to a question read out by another student, the entire class must be alert and listen to the question read out so that the correct answer can be given**

Notes to the teacher: The teacher can have the entire set of questions typed on a sheet to keep track and check out for any incorrect answers. It also helps to note if each answer matches only one question to avoid ambiguity and a split in the loop.

Worksheet: QA_Physical Features of India - 2 can be given as homework.

Time to teach	Asset type	Theme	Sub Theme
20 minutes	Questions to Assess	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Coastal Plains The Himalayan Mountains The Indian Desert The Islands The Northern Plains The Peninsular Plateau

MS_Summary - Physical Features of India

Objective: The students will be able to summarise the unique features of each of the physiographic divisions of India in the chapter - Physical Features of India.

Teaching Aids: PPT

Notes to the teacher: The teacher can draw the mind map or write the main points of the summary on the blackboard.

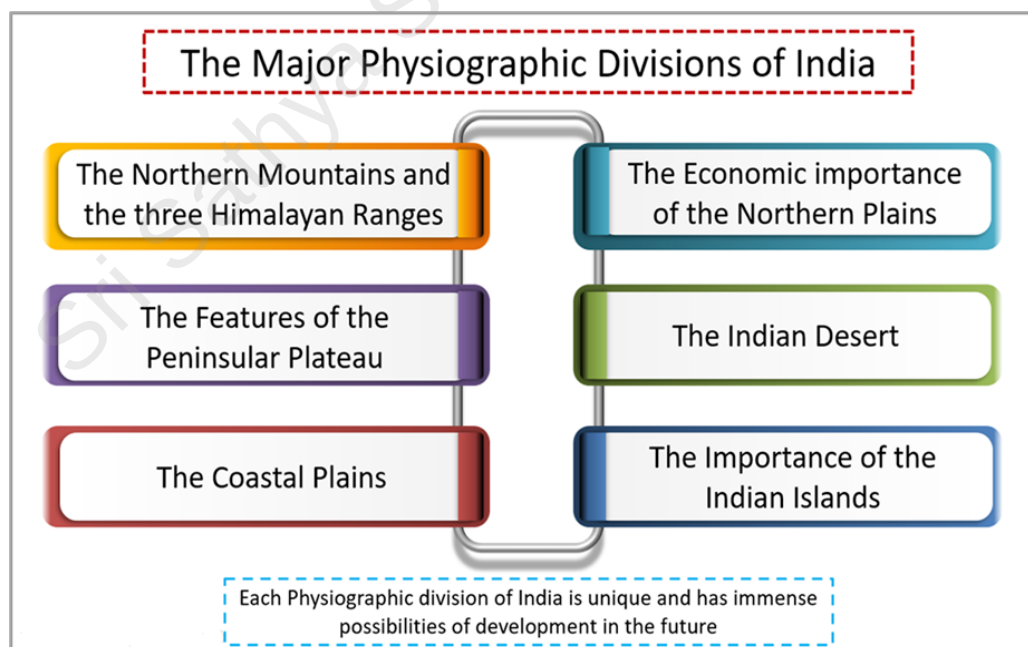
The teacher can introduce the asset by saying, "Let us summarise what we have learnt in this topic".

Summary - In this chapter we discussed:

The Major Physiographic Divisions:

- The Northern Mountains - Himalayan mountains - Ranges - Peaks - Passes - Holy places
- The Economic importance of the Northern Plains
- The Features of the Peninsular Plateau
- The Coastal Plains
- The Indian Desert
- The importance of the Indian Islands

Each Physiographic division of India is unique and has immense possibilities of development in the future.



Time to teach	Asset type	Theme	Sub Theme
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3 minutes	Main Script	Indian Peninsula	Major Physiographic Divisions Physical Divisions The Coastal Plains The Himalayan Mountains The Indian Desert The Islands The Northern Plains The Peninsular Plateau
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VIDYA VAHINI
श्री सत्यसाई विद्या वाहिनी

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Annexure to Master Lesson Plan

What is the purpose of this Master lesson Plan?	This Master Lesson Plan (MLP) prepared by Sri Sathya Sai Vidya Vahini (SSSVV), covers the entire chapter for the given board. The MLP for the chapter given in the textbook is broken down into smaller modules known as assets. Any chapter can be taught using the 7 asset types in SSSVV methodology. Several different assets together complete the entire chapter. Depending on the requirement, each asset is supported by teaching aids such as animated presentation, audio, video, and learning aids such as worksheets. The MLP is for the teacher's preparation and the teaching aids are for use in the classroom.
How to use it?	You can prepare for your class with this MLP by following 3 simple steps: 1. Read your textbook; 2. Go through the information given in the assets (document & multimedia); 3. Prepare your teaching notes. Great! Now you are ready to transact the chapter.
Duration	Kindly note the duration given for each asset. Due care has been taken in planning the assets, to ensure the chapter is completed within the time specified by the Board. Note: Preparation time is not included in the asset duration. The teaching time depends on the duration of the teaching aids and is not impacted by the length of the MLP.
What is a 'Main Script' (MS) Asset?	The Main Script asset is there for explaining the main concepts of the chapter clearly. The information given in the textbook is simplified, organised and structured to give more clarity. Additionally, you may find a video or mnemonics or a graphic organiser to deepen the understanding of the concept.
How to teach using the MS asset?	Please use the blackboard, slides and interaction to develop the concept.
What is an 'Inquisitive Questions' (IQ) asset?	The Inquisitive Questions asset uses questions to promote higher order thinking like the n th why, what-if, new perspectives, cause-effect, and others, creating curiosity.
How to teach using the IQ asset?	You may use the questions to connect with the students, encourage exploration to engage them in the learning process. You may allow multiple responses and instead of rejecting any of the responses, ask why, before revealing the suggested answer or hints.
What is a 'Day to day Relevance' (DD) Asset?	The Day to Day Relevance asset helps students understand the practical relevance of every topic, making them eager participants in the classroom. If students connect the concepts to their environment, they would learn meaningfully without dislike or simply memorizing for exams.
How to teach using the DD	You may use the asset by asking questions about their experience and use it to establish why they are learning the topic. If necessary you may substitute with a

asset?	recent or local example.
What is an 'Interesting Aside' (IA) asset?	The Interesting Aside asset uses attention grabbing tidbits or anecdotes to bring joy and satisfy the child's hunger to know more. This is a quick/short asset intended to bring attention back to the main concept being taught.
How to teach using the IA asset?	You may use this asset to give a piece of interesting information relevant to the topic, without prolonged explanation/discussion. You may suggest appropriate books for further reading.
What is a 'Suggested Activity' (SA) Asset?	The Suggested Activity asset provides a detailed step by step procedure for the teacher to conduct a hands-on activity. This promotes Activity Based Learning.
How to teach using the SA asset?	You may use this asset to energise your students to learn by doing simple, fun-filled activities based on the topic. The asset includes - preparation, activity, and follow-up. You may engage the students in the preparation and follow-up stages to develop collaboration and responsibility. You could try it once, yourself, before the actual delivery to be more comfortable with it. Note: The duration mentioned in the asset is usually for the activity part only.
What is a 'Value Content' (VC) Asset?	The Value Content asset integrates Universal Human Values (such as empathy, inclusivity, respect for nature that translates into responsible behaviour) seamlessly into the curriculum, as the "End of education is character".
How to teach using the VC asset?	You may use this asset to engage with the students to bring out their innate values and connect with the intrinsic values in the topic/concept. The asset includes pointers on the specific pedagogical technique followed.
What is a 'Questions to Assess' (QA) asset?	The Questions to Assess asset uses an interactive approach to check learning of different types of learners, and provides feedback to the teacher for appropriate action. The questions cater to all the levels of Bloom's Taxonomy. Questions from 'Apply' level and above enable students to reflect on their learning.
How to teach using the QA asset?	You may go through the slides to understand its flow and know when to click for the answer (slides include suggested answers). While presenting in the class, you may display the question and encourage multiple responses, before revealing the answer. In some cases, this asset may include extra questions/worksheet that can be given as homework.