

Theme 1: Representation of Geographical Features

Maps are the basic tools of Geography. In this theme children will learn to identify the different types of maps based on scale and also learn about representation of scale, the use of symbols and directions on a map through various methods. The theme would also enable children to understand the significance of diagrammatic representation of geographical features.

Learning outcomes:

Children will be able to:

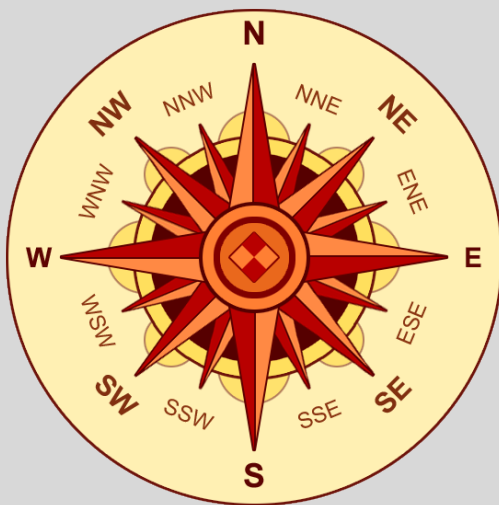
- ☑ identify the difference between a map, sketch, plan and globe;
- ☑ interpret maps on the basis of scale i.e. large scale, small scale;
- ☑ list the elements of a map;
- ☑ identify directions and the eight cardinal points;
- ☑ know uses of scales and symbols for measurement on a map;
- ☑ represent geographical features through diagrams.

Representation of Geographical Features

Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Maps: introduction, difference between map, sketch, plan and globe. ➤ Importance of maps. ➤ Types of maps based on scale. ➤ Scale: meaning and uses. ➤ Direction: eight cardinal points. ➤ Symbols. ➤ Diagrams (with brief explanation): rivers, meander, anticline, syncline, tributaries, distributaries, delta, block mountain. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for: <ul style="list-style-type: none"> ☛ observing a map and a globe and listing differences between the two. ☛ using practically and discussing the benefits of a map over a globe. ☛ creating a sketch and a plan of their locality and comparing it with a map. ☛ using a scale, symbols and directions on the sketch of their locality or school. ☛ sharing previous knowledge of the four directions and relating it to the cardinal directions using digital media or black board. ➤ Demonstrating the use of a scale by measuring actual classroom size and its representation on paper. ➤ Making a clay model of the globe with major latitudes and longitudes (Blue, Green and Brown). ➤ Creating a layout or plan of the following on a A3 size paper: building 	<ul style="list-style-type: none"> ➤ Mapping skills ➤ Wall map of the world – (political, physical), Topographical Maps. ➤ Clay models. ➤ Layout plans. ➤ Models and diagrams of Geographical features. ➤ Audio-visual materials, smart class modules, etc. ➤ Charts and diagrams.

Representation of Geographical Features		
Key Concepts	Suggested transactional processes	Suggested Learning resources
	<p>complex, club house, locality or area with garden.</p> <ul style="list-style-type: none"> ➤ Using the world map and the district map to discuss difference between large scale and small scale. ➤ Identification of different patterns of drainage by children through diagrams on interactive boards. ➤ Explaining diagrammatic representation of physical features through audio visual aids. 	

Integration: Mathematics and Arts Education



Theme 2: Landforms

Landforms are natural features of the earth surface. In this theme children will be introduced to and develop an understanding about the forces responsible for the formation of mountains and valleys, plateaus and plains on the earth. Description and spatial distribution of landforms will enable children to locate the same on the world map. Activities such as map based quizzes or group work in the classroom will enhance cooperative learning.

Learning outcomes:

Children will be able to:

- ☑ identify different types of landforms in their immediate surroundings and on visuals;
- ☑ locate important mountain ranges on the world map;
- ☑ differentiate between processes of formation of Fold mountains and Block mountains;
- ☑ discuss the process of formation of Volcanic mountains and locate important mountains on the world map;
- ☑ appreciate the importance of mountains in our life;
- ☑ compare and describe the formation and characteristics of Valleys and Plateaus;
- ☑ discuss the effects of geography on the history of our country;
- ☑ understand how landforms affect the lives of people.

Landforms		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Types of landforms; ➤ Mountains and Valleys: processes of formation of mountains and valleys – endogenous and exogenous processes ➤ Mountains: <ul style="list-style-type: none"> ➤ Formation of Mountains, folding, meaning and characteristics of Young Fold Mountains, distribution of Young Fold Mountains in the world – Rockies, Andes, Alps, Great Dividing Range, Himalayas and Atlas Mountains; meaning and characteristics of Old Fold Mountains, distribution of old fold mountains in the world (Urals, Appalachians, Aravalis). Location on world map. 	<ul style="list-style-type: none"> ➤ Initiating a discussion about what children already know about different landforms and building on their previous knowledge and learning. ➤ Providing opportunities to children to draw and colour maps and make models and diagrams. ➤ Discussing the meaning, formation and characteristics of fold and block mountains. ➤ Comparing the fold, block and volcanic mountains. ➤ Conducting group /individual activity of children listing things obtained from mountains. ➤ Making a model of an active volcano. ➤ Discussing the formation and characteristics of rift valleys and relating them to the river valley civilizations in past. 	<ul style="list-style-type: none"> ➤ Documentaries. ➤ Models of landforms, World maps and Atlas. ➤ Diagrams ➤ Satellite imageries of different landforms. ➤ Other online resources and videos. ➤ Quizzes. ➤ Children's experiences.

Landforms		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Faulting - meaning of faulting, formation and characteristics of Block mountains, distribution of Block mountains in the world (Black Forest, Vosges, Vindhya) ➤ Importance of mountains ➤ Volcanic mountains: formation and characteristics (Mount. Kilimanjaro in Africa and Mt. Fujiyama in Japan) ➤ Valleys: Formation and characteristics of rift Valley, distribution of rift valleys in the world - Rhine, Narmada, Nile ➤ Plateaus: formation and characteristics, types of plateaus, distribution in the world (The Deccan plateau in India, Tibet Plateau, The east African Plateaus in Kenya, Tanzania and Uganda), rich in mineral deposits. Location on world map. ➤ Plains: formation and characteristics, types of plains, distribution of plains in the world (plains of North America, Gangetic plains of India). Location on world map. ➤ Landforms and people: Landforms – impact on the life of people. (comparison between life in the mountains and life in the plains) 	<ul style="list-style-type: none"> ➤ Showing documentaries on the life of people living in mountains and plateaus. ➤ Conducting a research on the minerals found in Deccan Plateau in India using technology backed skills. ➤ Conducting a discussion on comparing life in mountains and in the plains. ➤ Conducting a class discussion on how geographical features of India have shaped its history. ➤ Drawing and colouring the map of India showing different physical features and displaying it on class wall magazine. ➤ Discussing the processes of formation of landforms with the help of audio-visual materials. ➤ Encouraging children to locate different landforms on an outline map of India and speak about the same. ➤ Organising quiz competitions in the classroom for locating important landforms on the world map. ➤ Encouraging children to develop clay models of landforms in groups. 	

Integration: History, Languages

Life Skills: Conservation of environment, sensitive towards society



Theme 3: Water Bodies

About three fourths of the earth's surface is covered by water. The purpose of this theme is to introduce and make children aware about the various types of water bodies such as seas, rivers, lakes and their spatial distribution in the world. Activities related to location of water bodies on the world map will enhance mapping skills among children. Discussion related to water pollution will enable children to appreciate and understand the linkages between local and global issues.

Learning outcomes:

Children will be able to:

- ☑ locate oceans, important seas, rivers and lakes, on the world map and in the atlas;
- ☑ describe importance of seas, rivers, lakes for development of any area;
- ☑ understand different water bodies and how they relate to river valley civilizations and sea voyages in history;
- ☑ discuss problems related to water pollution.

Water Bodies		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<p>Oceans, Seas, Lakes and Rivers</p> <ul style="list-style-type: none"> ➤ Oceans - Pacific Ocean, Atlantic Ocean, Indian Ocean, Arctic Ocean and Southern Ocean; their characteristics and importance ➤ Sea – distribution of marginal and inland seas (Bering sea, Caribbean Sea, North Sea, Black sea, Caspian Sea, Aral Sea, Arabian sea, Red sea and dead sea). ➤ Lakes – distribution of major lakes in the world, their characteristics and importance (Baikal, Five Great lakes of the U.S.A, Lake Omega, Lake Titicaca, Lake Victoria and Chilka lake). ➤ Rivers - distribution of major rivers in the world, their characteristics and importance, (Mackenzie, St Lawrence, Mississippi, 	<ul style="list-style-type: none"> ➤ Initiating discussions on children's experiences about different water bodies. ➤ Encouraging children to locate various water bodies on the world map with the help of the interactive board and atlas. ➤ Promoting discussion among children about water pollution using newspapers clippings and articles. ➤ Engaging children (groups/whole class) to discuss causes of water pollution in their own area and what action could be taken to improve the situation) Brainstorming on harmful impacts of water pollution on aquatic life and on human beings. ➤ Organizing whole class/group wise quiz competitions in class for locating important rivers, seas, lakes etc. on the world map. ➤ Giving project work to children in groups to prepare a report on a dying/ disappearing lake /water body in a nearby area. (Findings can be based on information gathered from the internet; the report could include pictures, reasons, current status, 	<ul style="list-style-type: none"> ➤ Discussion ➤ Brainstorming ➤ Mind mapping ➤ World map, interactive board. ➤ Newspaper clippings and articles. ➤ Quizzes. ➤ Project work. ➤ Field Visits.

Water Bodies		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<p>Amazon, Nile, Rhine, Danube, Indus, Ganga, Yangtze, Huang Ho, Ob, Murray).</p> <p>➤ Causes of pollution of water bodies (in general).</p> <p>➤ Locating the above on the world map.</p>	<p>involvement of local bodies/ awareness programs organised, etc.)</p> <p>➤ Organising a class trip to a nearby water body-sea, river or a lake under supervision, followed by discussions on children's observations.</p> <p>➤ Showing videos on famous voyages and relating them to the voyages of Columbus and Vasco da Gama.</p> <p>➤ Showing videos and PPTs on oceans, seas, lakes and rivers in the world.</p>	

Life Skills: Conservation of environment.

Integration: Biology, History, Languages



Theme 4: Agriculture

Agriculture is one of the major economic activities in the world. The aim of this theme is to make children aware and understand about various farming practices in the world and relate them to the development of the region. They will also be able to identify various crops, the geographical factors responsible for their growth and distribution of major crops in the world.

Learning outcomes:

Children will be able to:

- ✓ recognise different types of agricultural practices in the world;
- ✓ locate major crop regions of the world.
- ✓ differentiate between food and cash crops;
- ✓ compare modern methods of farming with the traditional ones;
- ✓ relate agricultural development to the economy of a country;
- ✓ discuss agriculture in light of their own country – a land of farmers;
- ✓ discuss how the green revolution has helped in agricultural development.

Agriculture		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Introduction to different types of agricultural practices in the world. ➤ Subsistence Farming <ul style="list-style-type: none"> ☛ Intensive Farming ☛ Extensive Farming ☛ Shifting Cultivation ➤ Food crops and cash crops: meaning with examples –wheat, rice, cotton, jute, sugarcane ➤ Commercial farming: meaning with examples <ul style="list-style-type: none"> ☛ Plantation Farming: meaning with examples (tea, coffee, rubber) ➤ Locate major crop producing regions on the world map. ➤ Green Revolution: A brief idea of how green revolution helped in agricultural development. 	<ul style="list-style-type: none"> ➤ Organising a visit to a field followed by either individual or group work on: <ul style="list-style-type: none"> ☛ Observing crops, soil, farming tools and machines, etc. ☛ Interacting with the farmer about the different types of crops grown in their area, agricultural output, marketing, help if any, provided by the government, using fertilizers and pesticides, different methods of farming and difficulties involved. ☛ Preparing a report on the visit and presenting it in class. ➤ Providing opportunities for: <ul style="list-style-type: none"> ☛ Discussing traditional and modern methods of farming practices with children. ☛ Asking children to locate areas of subsistence farming and commercial farming on the world map. ☛ Analysing the differences between cash crops and food crops. 	<ul style="list-style-type: none"> ➤ Discussions ➤ Wall maps of the world map, Atlas. ➤ Satellite imageries of plantation ➤ Internet resources ➤ Smart class modules. ➤ Visuals and Articles from Newspapers, journals, magazines, etc. ➤ Reports. ➤ Project work. ➤ Experts/Agricultural Scientists.

Agriculture		
Key Concepts	Suggested transactional processes	Suggested Learning resources
	<ul style="list-style-type: none"> ▶ Audio-visual materials may be used to discuss different types of agriculture and their relationship with the development of any area. ▶ Preparing a project report in groups /individually on the 'Green Revolution and its Impact' on different regions of the country. ▶ Inviting an agricultural scientist to the class and organising a discussion on the related topic. 	

Life Skills: Conservation of environment, sensitive towards society

Integration: Biology, History, Languages



Theme 5: Minerals

The theme aims at providing children the knowledge and developing their understanding about minerals and ores and their distribution in the world. The theme will also create awareness in children about the need to conserve minerals.

Learning outcomes:

Children will be able to:

- ✓ differentiate between metallic and non-metallic minerals;
- ✓ describe the importance of minerals in daily life;
- ✓ locate important minerals on the world map.
- ✓ discuss the different types of mining;
- ✓ appreciate the need to conserve mineral resources.

Minerals		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Minerals and Ores (meaning and examples). ➤ Types of minerals - metallic and non-metallic <ul style="list-style-type: none"> ➤ Metallic: Iron ore, uranium, bauxite, manganese, gold, silver, copper ➤ Non-Metallic: Lime stone, mica and mineral fuels (coal and petroleum) natural gas ➤ Distribution of these minerals in India and the world, leading producers in the world; uses of these minerals. ➤ Types of mining. ➤ Conservation of minerals. ➤ Location of above minerals on the world map. 	<ul style="list-style-type: none"> ➤ Initiating a discussion about what children already know about minerals and their uses on our daily life and building on this. ➤ Asking children to list different items made of metallic minerals, that they see in daily life. ➤ Explaining the meaning of minerals and ores followed by examples. ➤ Providing children opportunities to collect locally available minerals and explain the concept of metallic and non-metallic minerals. ➤ Using the Atlas and wall maps of the world and asking children to locate important mining areas of the world. ➤ Facilitating children in observing and interpreting satellite imageries by NASA and understanding the colour bands for finding reserves of minerals. ➤ Engaging children in discussion about the importance of minerals and their conservation. ➤ Using articles, newspaper clippings, videos, etc. for generating discussion amongst children towards conservation of non-renewable minerals and encouraging them to search for alternatives to these minerals. 	<ul style="list-style-type: none"> ➤ Wall maps of the world map, Atlas. ➤ Internet resources. ➤ Samples of different types of minerals. ➤ Visuals and articles from Newspapers, journals, magazines, etc.

Minerals		
Key Concepts	Suggested transactional processes	Suggested Learning resources
	<ul style="list-style-type: none"> ➤ Asking children (individually /groups) to prepare posters on pollution due to mining activity and conservation of minerals. ➤ Creative expressions while preparing posters. 	

Integration: Chemistry, Languages

Life Skills: Conservation of environment



Theme 6: Study of Continents: North America and South America

This theme is an introduction to the study of the Continents of the world which begins with the study of North America and South America. Children will be provided a broad overview of the two continents. They will also get an opportunity to do a case study from each continent.

Learning outcomes:

Children will be able to:

- ✓ locate North America and South America on the world map and in the Atlas;
- ✓ identify and mark the different countries in North America and South America on their respective maps;
- ✓ locate and identify the physical features of North America and South America on the map;
- ✓ compare the life in lumbering (Canada) with the life in the Amazon basin;
- ✓ understand how the geography of a place affects the life of people (through case studies).

Study of Continents: North America and South America		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<p>➤ A brief idea of the formation of continents.</p> <p>North America</p> <p>➤ Introduction</p> <p>➤ Location</p> <p>➤ Boundaries</p> <p>➤ Political divisions (countries and capitals)</p> <p>➤ Major Physical features</p> <p>➤ Locating the above on the map.</p> <p>➤ Case Study: Lumbering in Canada</p> <p>South America</p> <p>➤ Introduction</p> <p>➤ Location</p> <p>➤ Boundaries</p> <p>➤ Political divisions (countries and capitals)</p> <p>➤ Major Physical features</p> <p>➤ Locating the above on the map.</p> <p>➤ Case Study: Life in the Amazon river basin</p>	<p>➤ Showing videos on the location and geography of North and South America.</p> <p>➤ Sharing children's knowledge about countries in these two continents and building on the same.</p> <p>➤ locating countries and their capitals in the two continents using audio visuals, maps, atlas or globe, by the teacher followed by children being asked to locate the same.</p> <p>➤ Showing videos on Lumbering in Canada and life in the Amazon river basin and conducting a discussion afterwards.</p> <p>➤ Encouraging children in groups, to prepare a comparative study on the two Continents.</p> <p>➤ Asking children to prepare a chart to show the significance of the Amazon rainforest and the mighty river Amazon on the locals and the flora and fauna of the surrounding countries.</p> <p>➤ Facilitating Mind mapping on political divisions in the two continents by children.</p> <p>➤ Analysing and discussing the impacts of physical features of a place on life and occupations with children.</p> <p>➤ Discussing the impact of geographical features on the history of the continents.</p>	<p>➤ Audio-visuals.</p> <p>➤ Maps, atlas, globe.</p> <p>➤ Videos.</p>

Life Skills: Conservation of environment, sensitivity towards society

Integration: Biology, History, Languages, Arts Education

Theme 1: Representation of Geographical Features

This theme aims at developing in children the ability to interpret topographical sheets by identifying directions, colours and conventional symbols. They will also be able to measure distances using a scale.

Learning outcomes:

Children will be able to:

- ✓ identify purpose of using different colours scheme on the map;
- ✓ use different signs and symbols on the map;
- ✓ identify features on a topographical sheet on the basis of colours;
- ✓ use scales for measurement of distance;
- ✓ identify conventional signs and symbols used on a topographical sheet.

Representation of Geographical Features		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Use of colours on Topographical sheets Blue – Water body Red – Settlements Yellow – Agriculture Brown – High relief Green – Forests ➤ Use of scales for measurement: types of scales (representative fraction, linear scale). ➤ Measuring distance on the map using scales (straight line, curved line). ➤ Conventional signs & symbols (based on topographical sheets of Survey of India). 	<ul style="list-style-type: none"> ➤ Engaging children in a group activity for identifying features on topographical maps. ➤ Asking children to prepare individual maps on plain paper showing roads, settlements, water bodies, etc. with colours and conventional symbols. ➤ Engaging children in observing and using different types of scales. This is to be followed by a discussion on the scales and their uses. ➤ Organising activities like measuring the classroom, playground, corridor, etc. using a scale. ➤ Organising a visit to the office of Survey of India and observing cartographers at work. ➤ Organising a talk with a cartographer on the uses of colours, scale, signs and symbols on maps. ➤ Demonstrating the use of thread for measurement of curved line on the map e.g. length of the river. Asking children to do the same in pairs. 	<ul style="list-style-type: none"> ➤ Power point presentation and Blackboard/whiteboard/ interactive boards. ➤ Mind mapping ➤ Hands on activity ➤ Atlas and maps. ➤ Visits ➤ Experts.

Integration: Mathematics, Arts Education

Theme 2: Atmosphere

This theme aims at enabling children to understand the importance and composition of gases found in the atmosphere. Children will also be made aware and sensitised towards global warming and its impact on humans.

Learning outcomes:

Children will be able to:

- ✓ describe the importance of gases that comprise the atmosphere;
- ✓ describe the composition of different gases in the atmosphere;
- ✓ highlight importance of layers of atmosphere to sustain life on the earth;
- ✓ draw diagram to show the structure of atmosphere;
- ✓ discuss causes for global warming and ways to reduce it;
- ✓ understand the impact of global warming on life on earth;
- ✓ analyse the reasons for the depletion of the ozone layer and suggest ways to reduce it.

Atmosphere		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Introduction ➤ Composition of the Atmosphere ➤ Structure of the Atmosphere (brief description of Troposphere, Stratosphere (ozone layer), Thermosphere, Mesosphere, Exosphere). ➤ Green House Effect: meaning and causes. ➤ Global warming: <ul style="list-style-type: none"> ➤ Introduction ➤ Causes of ozone depletion (Greenhouse gases, deforestation, burning of fossil fuels); ➤ Impact of global warming (Melting of Ice caps & sea level rise, changing patterns of distribution of precipitation and temperature, etc.) ➤ Ways to reduce global warming (in general). 	<ul style="list-style-type: none"> ➤ Encouraging children to: ➤ collect information and data about weather from various sources such as newspapers, articles and internet. ➤ develop models /diagrams to show structure and composition of atmosphere. ➤ prepare posters or charts to show the causes and consequences of global warming. ➤ Participate in awareness campaigns and preparing materials for the same. ➤ Discussing the changing patterns of distribution of rainfall in the country. ➤ Modelling the greenhouse effect in a bottle. ➤ Organising poster making and slogan writing competition on 'Save Trees, Save Environment'. ➤ Sensitising children towards global warming and organising awareness campaign on it. 	<ul style="list-style-type: none"> ➤ Clay models for the structure ➤ Weather station, Weather report from the website of IMD. ➤ Weather crossword puzzle. ➤ Graphs and statistical data from internet resources to study the changes in the variation of temperature and precipitation ➤ Awareness campaigns

Integration: Biology, Chemistry, Languages

Life Skills: Environmental Conservation

Theme 3: Weather and Climate

This theme will enable children to understand the elements that affect the weather of a place and also differentiate between weather and climate. They will know about instruments used for measurement of rain, temperature, atmospheric pressure, etc.

Learning outcomes:

Children will be able to:

- ✓ list the elements that affect the weather of a place;
- ✓ distinguish between weather and climate;
- ✓ identify different instruments used to measure elements of weather;
- ✓ describe isohyets and isotherms through diagrams.

Weather and Climate		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Elements of Weather: <ul style="list-style-type: none"> ☛ Temperature ☛ Atmospheric pressure ☛ Humidity ☛ Precipitation (rain, dew, hail, snow) ☛ Winds ☛ Cloud (different types) ➤ Difference between Weather and Climate. ➤ Weather Instruments: <ul style="list-style-type: none"> ☛ Thermometer ☛ Rain gauge ☛ Barometer ☛ Hygrometer ☛ Anemometer and wind vane (Brief explanation with diagrams) ➤ Isohyets and Isotherms - meaning and diagrams only. 	<ul style="list-style-type: none"> ➤ Encouraging children to: <ul style="list-style-type: none"> ☛ discuss the weather conditions of the place they live in with their peers. ☛ collect information and data about weather from various sources such as newspapers, articles and internet and then writing a report on it. ➤ Demonstrating the use of weather instruments to understand the measurement of different elements of weather. ➤ Encouraging children to draw diagrams of weather instruments and discussing how to use them with peers. 	<ul style="list-style-type: none"> ➤ Weather station, Weather report from the website of IMD. ➤ Newspapers, articles and internet. ➤ Report writing ➤ Diagrams.

Integration: Languages, Physics, Chemistry



Theme 4: Weathering and Soil formation

This theme aims to introduce children to weathering and its types and how it contributes to soil formation. Children will also understand the importance of soil profile and the need to conserve soil.

Learning outcomes:

Children will be able to:

- ✓ list the different types of rocks;
- ✓ discuss the different types of weathering;
- ✓ analyse the factors that affect weathering;
- ✓ relate weathering to soil formation;
- ✓ discuss the importance of soil conservation and describe ways to conserve it.

Weathering and Soil formation		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Types of rocks (igneous, metamorphic, sedimentary): formation with examples; ➤ Weathering: meaning; factors affecting weathering; ➤ Types of weathering (mechanical, chemical, biological): brief explanation; soil formation as a result of weathering; ➤ Soil profile; importance of soil conservation, methods of soil conservation. 	<ul style="list-style-type: none"> ➤ Showing different types of rocks through Videos/PPTs. ➤ Promoting children to collect samples of different types of soil and rocks and then discuss the type of crops cultivated with them. ➤ Discussing reasons for weathering and the importance of tree plantation. ➤ Discussing the types of soils in India and showing the regions where these are found on a wall or a digital map. ➤ Asking children (individually/in groups/in pairs) to make a models of soil profile using rock, silt and clay. ➤ Showing films on terrace farming and the Chipko movement. 	<ul style="list-style-type: none"> ➤ Rocks, silt and clay to make a soil profile. ➤ Films on terrace farming and the Chipko movement. ➤ Videos. ➤ PPTs. ➤ Maps. ➤ Charts. ➤ Samples of different types of soil and rocks.

Integration: Biology, Languages, Chemistry

Life Skill: Sensitivity towards environment



Theme 5: Industries

This theme aims to develop children's understanding of how geographical and other factors are responsible for the location of industries. Children will also develop the ability to classify industries on the basis of inputs such as capital, labour and raw materials used. They will also be made aware and sensitised towards pollution caused by industries and measures that need to be taken to prevent the same.

Learning outcomes:

Children will be able to:

- ✓ differentiate large scale, small scale and cottage industries;
- ✓ discuss our dependence on industries for fulfilment of our daily needs;
- ✓ identify agro based industries and their raw materials;
- ✓ discuss factors responsible for localisation of industries.
- ✓ name some important industrial centres of the world;
- ✓ discuss how industries contribute towards environmental pollution and suggest ways to prevent the same.

Industries		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Introduction ➤ Need for industries in the world. ➤ Types of industries: large scale, small scale, cottage industries; agro based industries. ➤ Factors related to establishment of an industry. ➤ Important industries of the world: Iron and Steel, Cotton Textile, Information Technology, Sugar Industry, ship building, fishing, automobile; important centres of these industries and their location on world map. ➤ Pollution due to industries and its prevention. 	<ul style="list-style-type: none"> ➤ Mind mapping and familiarising children with the kind of resources required for industrial development through audio-visuals and interactive board. ➤ Organising a visit to a nearby industry to understand the process of production and use of human resource in an industry. ➤ Facilitating children interviewing a factory/ industry owner and discussing various issues like availability of raw material, labour, machines, marketing, etc. ➤ Organising group activity where children prepare a poster or model to display industrial pollution. ➤ Tracing the journey of any item from raw material to finished product (e.g.: your shirt from a cotton field to your wardrobe). ➤ Organising a role play on life without machines. 	<ul style="list-style-type: none"> ➤ Wall maps and Atlas. ➤ Internet resources. ➤ Visuals and Articles from Newspapers, journals, magazines, etc. ➤ Industries/Factories in the neighbourhood. ➤ Posters and models.

Life Skills: Conservation of environment

Integration: Biology, Languages, Chemistry

Theme 6: Energy and Power Resources

Energy and power resources play an important role in the development of any area. This theme will enable children to understand the difference between renewable and non-renewable energy resources. Children will also be made aware and sensitised towards the conservation of energy resources in their daily life.

Learning outcomes:

Children will be able to:

- ✓ describe sources of energy;
- ✓ classify renewable and non – renewable energy resources;
- ✓ describe characteristics of solar power, hydro power and wind power;
- ✓ critically analyse distribution of energy resources among various sections of society;
- ✓ reflect on the judicious use and conservation of energy resources.

Energy and Power Resources		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Introduction: sources of energy; renewable and non-renewable energy resources; ➤ Renewable Energy Sources (Solar Power, Hydro-Power and Wind Power). ➤ Non-renewable Energy Sources (coal and petroleum). ➤ Hydroelectric projects: names of the major hydroelectric power projects in India with the names of the river and the state in which they are located. Locating on a map. ➤ Conservation of energy and power resources. 	<ul style="list-style-type: none"> ➤ Promoting discussion amongst children on distribution and consumption of energy resources in their own home/ among various sections of society/ different parts of the country/ rural and urban areas. ➤ Conducting a survey by children in groups to understand the consumption of energy in the school/ own home and suggesting measures to reduce the consumption. ➤ Finding out the consumption of electricity at home over a period of time. Depicting the same graphically. ➤ Displaying major hydroelectric projects on a wall map of India and providing brief information about them to children. ➤ Organising activities to make 3D models to show river and multipurpose projects. ➤ Discussing the impact of building large hydroelectric projects on the environment and life of people. ➤ Organising a visit of children to a nearby dam or hydroelectric project and writing a report on the observations made. ➤ Demonstrating methods to show generation of electricity with the help of a magnet. ➤ Inculcating the habit of switching off fans, A.C.s, lights at home and in school. ➤ Giving project/ Case Study on rural electrification in India. 	<ul style="list-style-type: none"> ➤ Pie chart – energy consumption. ➤ Magnet and wires ➤ Questionnaire. ➤ Models ➤ Online resources ➤ Reports. ➤ Case Study. ➤ Wind Farms and Hydroelectric projects.

Integration: Biology, Physics, Chemistry, Languages

Life Skills: Environmental conservation

Theme 7: Study of Continents: Europe, Africa, Australia and Antarctica

In the previous class, as a part of the Study of Continents, children were given an overview of North and South America. In this class the theme will take the study of different Continents further as children will be introduced to the Continents of: Europe, Africa, Australia and Antarctica. As in the previous class, children will also get an opportunity to undertake case studies.

Learning outcomes:

Children will be able to:

- ✓ locate Europe, Africa, Australia and Antarctica on the world map;
- ✓ identify the countries in Europe, Africa and Australia;
- ✓ locate the major physical features of these continents on the map;
- ✓ analyse why Antarctica is a human free zone.
- ✓ understand how the geography of a place affects the life of people through case studies.

Study of Continents: Europe, Africa, Australia and Antarctica

Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Europe, Africa, Australia: <ul style="list-style-type: none"> ➤ Introduction ➤ Location ➤ Boundaries ➤ Political divisions (countries with capitals) ➤ Major Physical features ➤ Locating the above on the world map. ➤ Case Studies: <ul style="list-style-type: none"> ➤ Tourism in Switzerland (Europe) ➤ Cocoa cultivation in Ghana (Africa) ➤ Sheep rearing in Australia (or any other) ➤ Antarctica – the uninhabited continent <ul style="list-style-type: none"> ➤ Location ➤ Boundaries ➤ Climate ➤ Human void zone 	<ul style="list-style-type: none"> ➤ Mind mapping and encouraging children to locate Europe, Africa, Australia and Antarctica on the World map. ➤ Locating the different countries of Europe, Africa, Australia and Antarctica on the political map. ➤ Providing opportunities to children to share their experiences if they have visited any countries in the 4 Continents being focussed on in the theme and make flags of a few countries of Europe, Africa and Australia. ➤ Encouraging discussions on the life of people in these continents. ➤ Making a scrap book (individually/groups) about the people of different continents. ➤ Making a Project on changing climatic conditions and their impact on the climate of the world (reference to melting of ice sheets in Antarctica). 	<ul style="list-style-type: none"> ➤ Map of Europe, Africa, Australia and Antarctica ➤ Mind mapping ➤ Flags ➤ Scrap book ➤ Political outline map ➤ Project Work

Integration: Biology, Languages, history, Arts Education

Life Skills: Sensitivity towards environment

Theme 1: Representation of Geographical Features

Topographical sheets or top sheets are large scale maps. On these maps various features (natural or human made) are represented by conventional symbols and colours, which have already been discussed in previous classes. In this class children will be introduced to contours and enabled to interpret toposheets on the basis of contours and features represented through symbols and colours. Children will also develop the ability to represent landforms such as valleys, hills, plateaus, etc. through contours on plain sheets.

Learning outcomes:

Children will be able to:

- ✓ read contours on toposheets;
- ✓ distinguish between steep and gentle slopes through contours;
- ✓ identify landforms through contours on the toposheet;
- ✓ differentiate patterns of settlements on the toposheet;
- ✓ draw contours and related landforms on plain paper;
- ✓ interpret and analyse the toposheets.

Representation of Geographical Features

Key Concepts	Suggested transactional processes	Suggested Learning resources
On the basis of Topographical Sheet: <ul style="list-style-type: none"> ➤ Interpret contours on the sheet (height, shape). ➤ Identify landforms through contours. <ul style="list-style-type: none"> ☛ Types of slopes (steep, gentle). ☛ Hills, Plateaus, Ridges (gap, saddle, col, pass). ➤ Settlement patterns: <ul style="list-style-type: none"> ☛ Temporary and permanent ☛ Nucleated, dispersed and linear ➤ Interpret and analyse the given toposheet. 	<ul style="list-style-type: none"> ➤ Providing examples of landforms through visuals, models or diagrams to children in order to explain contour patterns. ➤ Showing Satellite images from the different parts of the world and using them to analyse settlement patterns, by children. 	<ul style="list-style-type: none"> ➤ Visuals. ➤ Toposheets. ➤ Atlas and maps. ➤ Internet resources.

Integration: Mathematics, Arts Education

Life Skill: Using a topographical sheet

Theme 2: Population Dynamics

The theme aims at enabling children to understand the causes of population growth in different parts of the world. They will also be able to comprehend terms such as birth rate, death rate, population density, migration, etc. A case study approach will help in developing children understanding about the impact of high growth rate of population on socio-economic development of the region.

Learning outcomes:

Children will be able to:

- ✓ describe the factors affecting the population of a place;
- ✓ identify over and under populated countries in the world;
- ✓ analyse the impact of over and under population on society;
- ✓ interpret a population pyramid showing composition of the population on the basis of age and sex.

Population Dynamics		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Distribution of population in the world. ➤ Overpopulation and under population: meaning with examples of countries from the world. ➤ Impact of overpopulation and under population on the society. ➤ Factors affecting the population of a place, birth and death rate, immigration and emigration. ➤ Composition of population – Age and sex, rural and urban; population pyramid. 	<ul style="list-style-type: none"> ➤ Demonstrating the effect of increasing/ decreasing population by including more/less children in one classroom, followed by a discussion. ➤ Organising a debate and encouraging children to participate to give their views on the impact of the population growth on economic development of the country. ➤ Conducting a survey by children in groups to collect data of children in their school on the basis of their age and gender and construct a population pyramid diagram. ➤ Project work on Environmental effects of population growth ➤ Case Study on: A country which is over populated/ underpopulated 	<ul style="list-style-type: none"> ➤ Population data from internet, journals, newspapers, etc. ➤ Clay or paper mesh method to make population pyramids. ➤ Report of the Census(www.census.gov). ➤ Collection of Movies/documentaries/story, flash cards, visuals, maps, atlas. ➤ Project Work ➤ Case Study

Life Skills: Co-operation

Integration: Mathematics, History, Languages

Theme 3: Migration


Human movement from one place to another for different purposes is the focus of this theme. Children will be made aware of the types of migration and its impact on the socio-economic development of the area.

Movement of highly skilled and qualified persons to different parts of the world for better opportunities has been a cause of concern for India. This theme will enable children to understand and investigate the issues related to brain-drain in India and its impact on society.

Learning outcomes:

Children will be able to:

- ✓ differentiate the terms - immigration and emigration;
- ✓ explain reasons for migration from and to any area;
- ✓ analyse impact of migration on any area;
- ✓ identify regions of the world where huge migration took place during historical period.
- ✓ explain the meaning of brain-drain;
- ✓ identify causes of brain drain in India;
- ✓ analyse the positive and negative impact of brain- drain in India.

Migration		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Migration: Introduction. ➤ Types of migration- immigration, emigration, rural- urban and urban-urban. (examples from the world). ➤ Impact of migration on socio-economic structure of the society (examples from India and the world). ➤ Brain Drain: introduction, causes of brain-drain, positive and negative impacts of brain- drain. 	<ul style="list-style-type: none"> ➤ Showing an audio-visual/ movie /documentary or telling a story on migration. ➤ Initiating a discussion (based on the movie/ story) with children to analyse the impact of migration or brain drain. ➤ Joining the dots /treasure hunts to know the history of migration. ➤ Organising a class discussion on the problems of refugees. ➤ Collecting information about brain -drain from various sources e.g. newspapers, journals, magazines, internet, etc. and facilitating a discussion or debate. ➤ Case Study on positive and negative impacts of migration 	<ul style="list-style-type: none"> ➤ Movies/documentaries/stories, flash cards, visuals, maps, atlas. ➤ Newspapers, magazines, journals, web resources, etc. ➤ Case study 

Integration: Mathematics, History, Languages

Theme 4: Urbanisation

The aim of the theme is to enable children to understand the concept of urbanisation, its causes and effects. They will also be able to relate the knowledge gained in the previous theme to understand how rapid increase in urbanisation in the world is one of the major causes of migration.

Learning outcomes:

Children will be able to:

- ✓ describe the term urbanisation;
- ✓ identify causes of urbanisation;
- ✓ describe impacts of urbanisation;
- ✓ differentiate a smart city from any other urban centre;
- ✓ explain strategies/ steps taken at the local level to keep the urban areas clean.
- ✓ Discuss ways to reduce negative impact of urbanisation.

Urbanisation		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Urbanisation – meaning and causes. ➤ Positive and negative impacts of urbanisation; satellite cities. ➤ Concept of Smart Cities (examples from the World). 	<ul style="list-style-type: none"> ➤ Organising a field trip to study the functions of the municipal corporations and understand the problems related to population growth, urbanization and public utility services. ➤ Facilitating a discussion to compare the life in a village and in a city. ➤ Conduct a brainstorming session /class discussion on the relationship between technological development, skilled human resource and urbanisation. ➤ Discussing strategies to reduce negative impact of urbanisation. ➤ Project Work on smart cities to be developed in India. 	<ul style="list-style-type: none"> ➤ Movies/documentaries/stories, flash cards, visuals, maps and an atlas. ➤ Discussions ➤ Research ➤ Project Work

Integration: Mathematics, History, Languages

Life Skills: Co-operation




Theme 5: Natural and Man-made Disasters

The aim in this theme is to enable children to build on knowledge gained in previous classes. Children will get an opportunity to study selected disasters in greater detail through case studies and will also learn about disaster management and the role of the Government in disaster management.

Learning outcomes:

Children will be able to:

- ✓ differentiate between natural and manmade disasters;
- ✓ discuss the importance of disaster management;
- ✓ demonstrate (through drills) measures to be taken in case of an earthquake, flood, fire;
- ✓ describe the causes, effects and impact of floods, earthquakes and oil spills on life and environment.
- ✓ list measures to be taken to prevent disasters.

Natural and Man-made Disasters		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Natural and manmade disasters: Meaning and examples. ➤ Disaster management and its importance (in general); safety measures to be taken in case of floods, earthquake and fire. ➤ Role of the government in disasters and its management. <p>Case Studies:</p> <ul style="list-style-type: none"> ➤ Floods in Assam/Bihar (Causes, effects, impacts on life and environment). ➤ Earthquake in Nepal (2014): (Causes, effects, impacts on life and environment). ➤ Oil Spills-Coastal areas of the United States: (Causes, effects, impacts on life and environment). 	<ul style="list-style-type: none"> ➤ Building on children's previous learning. ➤ Providing opportunities to children to discuss the impact of recent/known natural and man-made disasters. ➤ Conducting a Mock drill/ Role play on disaster preparedness. ➤ Collecting information about disasters from newspapers, internet sources and discussing the various disasters and their implications on life and people. ➤ Encouraging children to take initiatives to create an awareness among people in their own locality about disaster preparedness. ➤ Organising mock drills of providing first aid. ➤ Discussing the lessons learnt from past disasters and listing corrective measures 	<ul style="list-style-type: none"> ➤ Documentary films on different types of disasters. ➤ Visuals, articles from newspapers, journals and magazines. ➤ Case Study ➤ Internet. ➤ Mock drills ➤ Discussions 

Integration: Biology, Languages

Life Skills: Environmental conservation

Theme 6: Asia: The Largest Continent

In the previous class, as a part of the Study of Continents, children have already been given an overview of North America, South America, Europe, Africa, Australia and Antarctica. In this class children will be introduced to the largest continent - Asia. Asia is the largest and the most populous continent in the world. The purpose of introducing this theme is to enable children to understand the physical features and the natural environment of Asia.

Learning outcomes:

Children will be able to:

- ✓ identify countries of Asia on the globe and on the world map;
- ✓ locate physical features e.g. important mountains, plateaus, deserts, rivers, lakes, islands. on the map of Asia;
- ✓ describe the impact of latitudinal extent and distinct relief features on the climate of Asia;
- ✓ analyse interrelationship between climate and natural vegetation found in the different regions of Asia.

Asia: The Largest Continent		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Location and Extent ➤ East Asia, North Asia, Central Asia, South-East Asia, South-Central Asia, Western Asia ➤ Physiography: Northern lowlands, Central highlands, Plateaus, River basins, Islands. ➤ Climate: Factors affecting Climate of Asia, Types of Climate: Tundra, Temperate, Tropical, Desert, Equatorial. ➤ Natural Vegetation and Wildlife, Tundra, Taiga, Tropical Deciduous, Thorny, Equatorial. 	<ul style="list-style-type: none"> ➤ Engaging children in group activity to locate the physical features on the map of Asia. ➤ Using audio - visual materials to highlight geographical and cultural differences in different parts of Asia. ➤ Promoting children's participation to draw an interrelationship between latitudes, relief, climate and vegetation found in different parts of Asia. 	<ul style="list-style-type: none"> ➤ Maps. ➤ Atlas. ➤ Clay and /or papier mache. ➤ Flow chart and/or tables. ➤ Web resources and scrap books. ➤ Audio-visual materials.

Integration: Biology, Languages

Life Skills: Environmental Conservation

Theme 7: India: Geographical Features

The theme aims to build on children's previous knowledge of Class VI and focus and develop a more in-depth understanding of one country in Asia i.e. India.

Learning outcomes:

Children will be able to:

- ✓ interpret location and extent of India with reference to other countries of Asia;
- ✓ locate important mountains, plateaus, deserts, islands, rivers on the map of India;
- ✓ compare the relief, climate and vegetation of India with other parts of Asia;
- ✓ discuss the importance of monsoon and its impact on the socio-cultural unity of India.

India: Geographical Features		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ India- Its location and extent, its neighbouring countries. ➤ Political divisions of India – States/ UTs and Capitals. ➤ Physiographic Divisions of India –The Himalayas, Northern plains, Peninsular plateau, Thar desert, Coastal regions, Islands. ➤ Conservation of Forest and wildlife in India. ➤ National parks, biosphere reserve, wildlife sanctuaries. ➤ Climate and Natural vegetation: <ul style="list-style-type: none"> ☛ Factors affecting climate, Monsoon. ☛ Types of Natural vegetation: Tropical rain forest, deciduous forest, thorny, Tidal Forest, Montane forest. 	<ul style="list-style-type: none"> ➤ Organising quizzes to locate places and physical features on the map of India. ➤ Encouraging children to draw an interrelationship between the relief, climate and natural vegetation available in different parts of India. ➤ Giving project work on different types of natural vegetation and their importance. ➤ Discussing the importance of conserving the natural vegetation with children. ➤ Discussing and explaining the mechanism of monsoon in India. ➤ Discussing the role of the Monsoon in the socio-cultural unity of India. 	<ul style="list-style-type: none"> ➤ Maps. ➤ Atlas. ➤ Web resources and scrap books. ➤ Projects. ➤ Quizzes. ➤ Discussions

Integration: Biology, Physics

Life Skills: Environmental Conservation



Theme 8: India: Human Resources

This theme aims at introducing and making children aware of the concept of people as resources for the socio-economic development of the country. Children will be made aware that a healthy, educated and skilled human being is an asset for the country. Children will also be enabled to investigate areas of the World/India where natural resources are not being used properly without skilled humans.

Learning outcomes:

Children will be able to:

- ✓ discuss the meaning of human resource;
- ✓ describe the role of health and education in developing human resources;
- ✓ understand the meaning of skilled and unskilled human resource;
- ✓ identify areas in India lagging behind in development due to unavailability of unskilled human resource;
- ✓ analyse factors responsible for development of any area.

India: Human Resources		
Key Concepts	Suggested transactional processes	Suggested Learning resources
<ul style="list-style-type: none"> ➤ Human resources – meaning. ➤ Distribution of population in India (rural urban, geographical distribution, sex ratio). ➤ Role of health and education in developing human resources (to be done briefly) ➤ Skilled and unskilled human resource (meaning and examples only). ➤ Impact of skilled human resource on the socio-economic development of the country (examples from India). 	<ul style="list-style-type: none"> ➤ Familiarising children with the different skills related to employment. ➤ Encouraging children to define aspects of population in terms of: - rural, urban, male, female etc. ➤ Explaining the meaning of skilled and unskilled human resources with relevant examples. 	<ul style="list-style-type: none"> ➤ Newspapers, magazines, journals, maps, web resources, etc. ➤ Graphs, statistical data

Integration: Mathematics, Languages, Biology

Life Skills: Understanding the potential of humans as resources



