ICSE Class - VII
Geography Syllabus

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**
▸ 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).	▸ 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.	▸ 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**
▸ 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: ☛ 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).	▸ 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.	▸ 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 isohytes and isotherms through diagrams.

Weather and Climate		
Key Concepts	**Suggested transactional processes**	**Suggested Learning resources**
▸ Elements of Weather: ☛ Temperature ☛ Atmospheric pressure ☛ Humidity ☛ Precipitation (rain, dew, hail, snow) ☛ Winds ☛ Cloud (different types) ▸ Difference between Weather and Climate. ▸ Weather Instruments: ☛ Thermometer ☛ Rain gauge ☛ Barometer ☛ Hygrometer ☛ Anemometer and wind vane (Brief explanation with diagrams) ▸ Isohytes and Isotherms - meaning and diagrams only.	▸ Encouraging children to: ☛ 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.	▸ 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**
▷ 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.	▷ 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.	▷ 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

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**
▸ 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.	▸ 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.	▸ 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**
▸ 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.	▸ 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.	▸ 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 Antractica

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**
▸ Europe, Africa, Australia: ☛ Introduction ☛ Location ☛ Boundaries ☛ Political divisions (countries with capitals) ☛ Major Physical features ☛ Locating the above on the world map. ▸ Case Studies: ☛ Tourism in Switzerland (Europe) ☛ Cocoa cultivation in Ghana (Africa) ☛ Sheep rearing in Australia (or any other) ▸ Antarctica – the uninhabited continent ☛ Location ☛ Boundaries ☛ Climate ☛ Human void zone	▸ 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).	▸ 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