



Lokankur

लोकांकुर

अपनी मिट्टी से, पूरी दुनिया तक।

From our roots to the wider world.

BOOK 01 / WORLD

The World Around Us

An illustrated book for Classes 6, 7 and 8





The World Around Us

Lokankur • Expanded illustrated edition • 2026

Seeing a connected planet

Begin with land, water and the seven-continent convention. Then follow rivers, resources, journeys and local maps. The aim is to understand relationships between places, not to reduce a continent to a list of facts.



Read with time to notice

Read the explanation before attempting the task. Use a notebook for sketches, questions and first attempts. Return to a sentence or image when a new detail changes your understanding.

A route through Classes 6-8

Begin by describing and explaining. Move on to comparing examples and connecting ideas. Then examine evidence, assumptions and limits. These are flexible routes: understanding matters more than finishing every page at the same speed.

**MEET YOUR COMPANIONS**

Three friends. Many questions.

Ravi, Raj and Elena are fictional friends around your age. They notice, ask, test and sometimes change their minds. None has every answer. You are invited to question their ideas and offer your own.

**Ravi**

Notices connections in everyday life. Keeps a notebook of observations and questions.

**Raj**

Enjoys trying explanations and drawing plans. Learns to check his first confident answer.

**Elena**

Brings another perspective and asks how a situation might look to someone else.

Read with them. Think for yourself.

The character boxes are invitations to enquire. Pause, offer a reason and compare another possibility. In each new investigation, read the scene, examine the idea and try the activity before checking the worked example.

The new stories, businesses, prices and datasets are invented teaching examples unless identified otherwise. The characters do not represent every person from any place. Discuss the situations rather than disclose private family information.



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FOUNDATIONS / CHAPTER 01

A planet of land and water

The view from far away

Imagine travelling high enough to see Earth as a whole. The blue areas dominate the view. Water covers about 71 per cent of the surface; land occupies the remaining portion. This does not mean that fresh drinking water is plentiful everywhere. Most of Earth's water is salty ocean water, and much of its freshwater is stored in ice or underground. A coastal town may be surrounded by water while still needing careful management of its freshwater supply.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Cylindrical view; this map does not preserve area.



Ravi asks...

What does this map help us see, and what does it leave out?



Geographers use the word continent for a very large land region. In this book we use the seven-continent convention: Asia, Africa, North America, South America, Antarctica, Europe and Australia. This is a convention, not a set of seven completely separate rock platforms. Europe and Asia form one connected landmass, often called Eurasia. Other educational traditions group continents differently. Knowing which convention a map uses helps you read it correctly.

Five names, one connected ocean

The Pacific, Atlantic, Indian, Southern and Arctic oceans are named regions of a connected global ocean. The Pacific is the largest. The Southern Ocean surrounds Antarctica; the Arctic Ocean lies around the North Pole. The Indian Ocean connects the eastern coast of Africa, southern Asia and western Australia. Water moves between these regions, carrying heat, nutrients and organisms. Coastlines mark the meeting of land and sea, but the relationship between them extends inland through rivers and weather.

A globe represents Earth's rounded shape. A flat map is easier to carry and annotate, but flattening a curved surface changes something: area, shape, distance or direction. On some world maps Greenland looks as large as Africa, although Africa is much larger. Read the projection note before comparing sizes. A political map emphasises boundaries; a physical map emphasises relief and water; a thematic map selects a topic such as rainfall.



A world without a single centre

The Equator divides the Northern and Southern hemispheres. Longitude is measured east or west of the prime meridian. These imaginary lines form a coordinate system. They are not visible fences. A map centred on the Pacific tells a different visual story from one centred on the Atlantic, even though both represent the same planet. No country occupies a scientifically privileged centre of the world.

Learn continent and ocean names by linking them with positions rather than memorising an isolated list. Africa crosses the Equator. Antarctica surrounds the South Pole. Australia lies south of the Equator. The Atlantic separates the Americas from much of Europe and Africa. Then ask a deeper question: how do oceans connect people through shipping, weather and food as well as separating places?

PAUSE & APPLY

Explain why seven continents do not mean seven tectonic plates. Locate the ocean south of India and name two shores it connects.

Remember: a continent, country, ocean and tectonic plate are different kinds of geographic region.



CONNECTED ENQUIRIES / 01

Whose world is at the centre?

Geography / Perspective

Ravi unfolds two world maps at the learning centre. India is near the middle of one and near the edge of the other. Raj thinks the second map has moved the countries. Elena traces the same coastlines on both. Nothing has moved on Earth; the mapmakers have chosen different starting points. The three friends decide to look for choices a map makes before trusting its first impression.

Look behind the scene

A map selects, simplifies and arranges information for a purpose. Its centre, scale and symbols help some questions and may hide others. Political boundaries describe territories; a river basin describes a water system. These are different ways of organising the same space.

Distance on a small-scale world map cannot tell us whether a route is easy to use. A missing bridge, a fare or a steep path may matter more to a traveller. Ask what a map shows, what it leaves out and whose journey it serves.

Ravi, Raj & Elena join the enquiry

**Ravi**

I used to think the centre of a map was the most important place. What made me assume that?

**Raj**

Could a perfectly neat map still leave out a difficult journey?

**Elena**

Let us give both maps the same question before comparing their usefulness.



Question, compare, decide

Map choice	Question it helps
Political boundaries	Which territories adjoin?
River basin	Where might water flow?
Bus routes	Which services connect places?

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Sketch one place twice: first for a pedestrian, then for a bus passenger. Use a key.
2. Name one useful detail each map includes and one important detail it leaves out.
3. Write a sentence explaining why different centres do not create different planets.

A worked way to think about it

For a pedestrian, a footpath and safe crossing may matter. For a bus passenger, stops and service times may matter. Neither sketch is a complete description of the place. A useful comparison starts with a shared purpose and checks the date and source of the information.

PHILOSOPHY FOR AN ORDINARY DAY

Does being familiar with one place make it more important than other places? Distinguish personal attachment from a claim that everyone must share your priorities.

A map is a tool with choices, not a view from nowhere.



FOUNDATIONS / CHAPTER 02

Asia: many landscapes, many lives

Across a vast continent

Asia is the largest continent by land area. It stretches from Arctic coasts to tropical islands, and from the eastern Mediterranean region to the Pacific. India belongs to South Asia. East Asia, Southeast Asia, Central Asia and West Asia are useful regional names, but their edges depend partly on the purpose of the discussion. A region is a way of organising knowledge; it should not become a box that erases differences among people.



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The Himalayas form a mountain system along the northern part of the Indian subcontinent. Their height influences temperature, glaciers and river flow. The Tibetan Plateau lies to their north. Farther across Asia are the dry landscapes of the Arabian Peninsula, the grasslands of Central Asia, Siberian forests and the islands of Indonesia and Japan. Latitude, altitude, distance from the sea and seasonal winds help explain this variety.

Rivers and the monsoon

The Indus, Ganga, Brahmaputra, Yangtze and Mekong are among Asia's major rivers. Their basins support farming, settlements, transport and ecosystems. A river basin includes the land from which water drains toward that river and its tributaries. A political border may cross a basin without changing the direction in which water flows. Communities upstream and downstream therefore depend on one another.

A monsoon involves a seasonal change in winds. In much of South Asia, the summer monsoon brings important rainfall. Its arrival and distribution affect crop choices, reservoirs and daily travel. Monsoon rain is not identical everywhere, and not every rainy day is a separate monsoon. Mountains can produce wetter windward slopes and drier rain-shadow areas. A climate map helps explain patterns that a single photograph cannot show.

Connections without stereotypes

Asian cities include manufacturing centres, ports, technology hubs and markets, while rural areas support many forms of farming and livelihood. Rice is important in many wetter regions; wheat grows in other settings. Terracing can make steep slopes usable, but maintaining terraces requires labour and water management. Trade connects inland producers with distant consumers through roads, railways and ports.



No single language, religion, food or way of dressing represents all of Asia. India itself contains enormous cultural and environmental variety. When reading a continent profile, think of it as an opening map of questions. Compare two places using the same evidence: their latitude, elevation, rainfall and transport links. Avoid explaining someone's personality or ability through the place they come from.

Places to find in an atlas

Locate India, China, Japan, Indonesia and Saudi Arabia. They sit in very different parts of Asia. New Delhi is India's capital; Beijing is China's capital; Tokyo is Japan's capital. A country's capital is a political centre, but it need not be its largest city or its busiest port. Locate Mumbai, Shanghai and Singapore to explore different kinds of urban connection. Singapore is both a city and a country. Compare Japan's islands with the landlocked setting of Mongolia: coastlines and borders create different transport possibilities, without determining everything about an economy.

PAUSE & APPLY

Compare a Himalayan settlement and a coastal Southeast Asian city. Which differences might altitude explain, and which require more evidence?

Place notebook: identify the Himalayas, Indian Ocean and a river basin on an atlas. Use a current atlas for country boundaries.



FOUNDATIONS / CHAPTER 03

Africa: beyond a single story

Land that crosses the Equator

Africa extends across both hemispheres and is bordered by the Atlantic and Indian oceans. The Mediterranean Sea lies to its north; the Red Sea separates northeastern Africa from the Arabian Peninsula. The Equator crosses the continent, but this does not make every African place hot and rainy. Elevation, ocean currents and atmospheric circulation create large differences in temperature and rainfall.



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The Sahara occupies a broad region in northern Africa. South of it lies the Sahel, a transition zone whose landscapes and livelihoods vary. Near parts of the Equator are tropical forests, including the Congo Basin. Savannas combine grasses with scattered trees where seasonal rainfall supports these communities. Southern Africa includes dry and wetter regions; highlands occur in the east. A continent contains many environments, not one scenery.

Water, height and change

The Nile flows northward toward the Mediterranean. The Congo River drains a large equatorial basin, while the Niger supports communities in West Africa. These rivers have different routes, seasonal flows and uses. Rivers can carry sediment that builds fertile floodplains, but floods may also damage homes and crops. Reservoirs can store water and generate electricity while changing habitats and downstream conditions.

Parts of eastern Africa lie within a rift system where Earth's crust is stretching. Rift landscapes include escarpments, lakes and volcanic areas. A rift develops over long geological times, not through a continent suddenly cracking apart in a single event. Mountains and highlands create cooler conditions than surrounding lowlands. Compare an elevated city with a low coastal city before making a claim about African climate.

People, cities and histories

Africa contains many countries, languages, cities and knowledge traditions. Historic trade networks connected the Sahara, the Indian Ocean and inland centres. Present-day livelihoods include agriculture, services, manufacturing, research, arts and technology. A photograph of wildlife may tell you about an ecosystem, but it cannot represent the lives of everyone on the continent. Ask what the photographer selected and what remains outside the frame.



Dryland communities may use mobility, crop diversity and local knowledge to respond to variable rainfall. These practices are adaptations, not signs that a place lacks ideas. Conservation also involves people: a protected habitat, grazing land and a tourist economy can create different benefits and pressures. A thoughtful geographic account includes whose water, work and decisions are involved.

Places to find in an atlas

Africa is the second-largest continent by land area. Locate Egypt in the northeast, Nigeria in West Africa, Kenya and Ethiopia in the east, and South Africa in the south. Cairo, Lagos, Nairobi, Addis Ababa and Cape Town are cities in different settings; they are not interchangeable pictures of African life. The Sahara extends across several countries, while the Congo Basin also crosses political boundaries. Madagascar is a large island off the southeastern coast. These examples show why a continent, country, city, island and river basin must be distinguished when you describe a place.

PAUSE & APPLY

Why is the statement 'Africa is a desert' misleading? Name three different environments and explain one reason for their differences.

Reading principle: use named places and dated evidence instead of making one claim about an entire continent.



Raj asks...

Could two places on this continent have very different daily lives?



FOUNDATIONS / CHAPTER 04

Europe: peninsulas, plains and connections

A continent joined to Asia

Europe is the western part of the Eurasian landmass. The Europe-Asia boundary is conventional and is commonly described using features such as the Ural Mountains. It is not an ocean dividing two completely separate lands. Europe has many peninsulas and a deeply indented coastline. Seas such as the Mediterranean, Baltic and North Sea have shaped travel, trade and the location of settlements.



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The Alps are a major mountain system; broad plains extend across much of northern and eastern Europe. Rivers such as the Danube and Rhine connect inland regions with ports and other settlements. Rivers may cross several countries, making cooperation over navigation, pollution and flood management important. A physical map and a political map reveal different kinds of connection.

Climate is more than latitude

Northern Europe lies far from the Equator, yet parts of its western coast have milder winters than some inland places at similar latitudes. Ocean influence and atmospheric circulation help explain this. Continental interiors often have greater seasonal temperature differences. Mediterranean regions commonly experience dry summers and wetter winters, while high mountains have colder conditions and changes with altitude.

Climate influences land use without deciding every detail of human life. Buildings, transport, farming practices and technology also matter. A greenhouse extends a growing season; insulation reduces heating needs; urban trees can provide shade. Reading geography means connecting environmental conditions with human choices rather than assuming that climate determines how people must behave.

Cities, heritage and modern life

European settlements contain layers of history: old street patterns, industrial districts, modern housing and public transport networks. A historic town may preserve buildings while also needing homes and services for people living there now. Heritage can attract visitors, but tourism may create crowding, waste or higher housing costs. A city is a working community as well as a place to photograph.



Europe and the European Union are not the same thing. Europe is a geographic region; the European Union is a political and economic organisation whose members form only part of that region. Membership can change, so use a current source rather than treating a printed list as permanent. This distinction shows why learning categories matters as much as learning names.

Places to find in an atlas

Locate France, Germany, Italy, Spain, Norway and the United Kingdom. Paris, Berlin, Rome, Madrid, Oslo and London are their respective capitals. Italy extends into the Mediterranean as a peninsula, while the United Kingdom occupies islands off the mainland. Norway has an extensive indented coast, including fjords: long narrow sea inlets associated with glacially shaped valleys. Switzerland is landlocked and contains part of the Alps. Compare these places through physical position rather than through stereotypes about their residents. A capital map, mountain map and shipping map answer different questions.

PAUSE & APPLY

Use a map to explain how a river can connect inland places with the sea. Why should a geography book distinguish Europe from the European Union?

Look closely: coastlines, mountain passes, waterways and railway routes all help explain connections, but none explains a city by itself.



FOUNDATIONS / CHAPTER 05

North America: from Arctic to tropics

A wide range of environments

North America extends from Arctic lands to tropical regions. In the seven-continent convention used here, it includes Central America and the Caribbean. Canada, the United States and Mexico are three large countries on the mainland, but they do not represent the whole continent. Islands and smaller countries are essential to its geography. The Arctic, Atlantic and Pacific oceans border different sides.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Cylindrical view; this map does not preserve area.



The Rocky Mountains run through western North America; the older Appalachian Mountains lie in the east. Broad interior plains support many kinds of agriculture. The Great Lakes form a large freshwater system shared by Canada and the United States. Rivers, including the Mississippi system, drain wide areas and support transport, farming and ecosystems. The continental landscape also includes deserts, tundra, forests and tropical coasts.

Land use and movement

A prairie is a grassland ecosystem, not simply an empty space waiting for farms. Grasslands support plants, animals and soils adapted to their conditions. Farming changes land cover and water demand. Irrigation can support crops where rainfall is limited, but it depends on rivers, reservoirs or groundwater. Taking more groundwater than is replenished can create long-term problems.

Large cities connect with surrounding towns and agricultural regions through roads, railways, airports and digital networks. A food item purchased in one city may depend on workers and water thousands of kilometres away. Migration adds another layer: people move for family, education, work, safety and many other reasons. A map of movement records routes, while people's accounts explain experiences that arrows alone cannot capture.

Reading history in a landscape

Indigenous peoples lived across North America long before European colonisation and continue to maintain diverse communities, languages and knowledge. Colonisation, forced displacement and changing land ownership shaped later landscapes. A respectful continent profile recognises that history without presenting Indigenous people only as figures of the past. Place names, agriculture, art and contemporary political life can all reveal continuing presence.



Coastal storms, wildfire, drought and flooding affect different regions in different ways. Exposure to a hazard is not the same as vulnerability: building design, warning systems, income and access to transport can change the harm people experience. Comparing two communities requires more than colouring them in the same hazard zone.

Places to find in an atlas

Ottawa, Washington, D.C., and Mexico City are the capitals of Canada, the United States and Mexico. Their locations show that a capital does not have to stand at a country's geographic centre. Locate Cuba, Jamaica, Guatemala, Costa Rica and Panama to include the Caribbean and Central America in your mental map. Greenland is geographically associated with North America even though its political relationship is with the Kingdom of Denmark. This is another example of geographic and political categories answering different questions. Use an up-to-date atlas to examine boundaries and administrative relationships.

PAUSE & APPLY

Compare an Arctic settlement, an interior farming region and a Caribbean island. What questions would you ask about water, transport and climate?

Geographic habit: name the region you mean. Do not use one country's name as a substitute for the entire continent.



Elena asks...

What would I need to check before saying that everyone here lives the same way?



FOUNDATIONS / CHAPTER 06

South America: mountains, forests and rivers

The long mountain edge

South America lies mostly in the Southern Hemisphere, although its northern part crosses the Equator. The Andes run along its western side beside the Pacific. To the east are vast basins, plateaus and lowlands, bordered by the Atlantic. The Andes influence rainfall, river origins and routes. Crossing a high mountain pass presents different challenges from travelling across a plain.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Cylindrical view; this map does not preserve area.



The Amazon Basin contains an extensive river network and tropical forest. The Amazon is not simply one line on a map: tributaries and floodplains make it a changing system. The Atacama region on the Pacific side includes extremely dry landscapes. Farther south are temperate grasslands and the varied environments of Patagonia. Latitude alone cannot explain these contrasts; mountains, ocean currents and circulation also matter.

A forest is a living system

In a rainforest, trees form layers with different light conditions. Plants, fungi, animals and microorganisms interact through food webs, pollination, decomposition and nutrient cycling. Cutting a forest changes more than the number of trees. It can affect soil, water movement, habitats and the people who depend on those places. A cleared patch may appear small on a world map while being significant to a local community.

Indigenous communities of the Amazon region are diverse and have different histories and relationships with land. Protecting forests should include their rights and knowledge. Not all communities make the same choices, and no photograph or story represents everyone. The word biodiversity describes variety in life; it does not tell us who holds power over a forest or who bears the costs of its destruction.

Cities and trade

South America contains large cities, agricultural regions, mining areas and industries. Coffee, soy, fruit and minerals connect particular places with international markets, but their production has different environmental and labour conditions. A trading map shows where goods move; an inquiry into production asks about water use, ownership, wages and waste. Geographic knowledge helps make these connections visible.



Most people do not live inside the rainforest. This is an important correction to a common mental picture of the continent. Coastal and inland cities, highland settlements and rural communities have varied lives. Spanish and Portuguese are widely used in many countries, alongside numerous Indigenous and other languages. Treat language maps as starting points rather than complete descriptions of identity.

Places to find in an atlas

Locate Brazil, Argentina, Peru, Chile and Colombia. Brasilia, Buenos Aires, Lima, Santiago and Bogota are their capitals. Brazil is the continent's largest country by area, and Portuguese is its official language. Spanish is widely used in many other countries, alongside Indigenous languages and other language communities. Chile's long narrow form lies beside the Pacific and Andes; Brazil extends across much of the eastern part of the continent. The Amazon Basin reaches beyond one country. Match countries with features carefully rather than colouring the whole rainforest as though it belonged to a single state.

PAUSE & APPLY

Explain how a mountain system can influence rivers and rainfall. Why would a rainforest protection plan need both ecological and community knowledge?

Map task: locate the Andes, Amazon Basin, Atlantic and Pacific. Mark them as features rather than drawing invented national borders.



FOUNDATIONS / CHAPTER 07

Australia and Oceania: land and an ocean of islands

Two terms, different purposes

Australia is both a country name and, in the convention used in this book, the name of a continent. Oceania is a wider geographic region that includes Australia, New Zealand and many Pacific islands. Different atlases define its extent somewhat differently. These terms are useful when their meanings are stated clearly. New Zealand is not part of the country of Australia.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Cylindrical view; this map does not preserve area. Oceania extends beyond this regional window.



Much of Australia's interior is dry. Coastal regions have different climates, and the southeast includes mountain environments. The Great Barrier Reef lies off the northeastern coast. It is built by living coral communities over long periods and supports many organisms. Coral reefs are ecosystems, not underwater piles of decorative rock. Changes in temperature, water quality and human activity can affect their health.

Living with distance and water

In dry regions, water availability strongly influences land use. Rainfall can be variable, and rivers may have seasonal flows. Groundwater is valuable but requires careful management. Large distances between settlements affect transport, communication and access to services. A road that appears short on a small world map may represent a long journey with few places to stop.

Pacific islands include volcanic islands and low coral islands, including atolls. A volcanic island may have steep relief; an atoll is typically a ring-shaped reef and islands around a lagoon. Their freshwater storage, soils and exposure to storms differ. A low island can face serious consequences from coastal erosion and saltwater entering freshwater supplies. Raising a sea level by a small amount can matter greatly where land is low.

People and connections

Aboriginal and Torres Strait Islander peoples have diverse living cultures and enduring connections to Country in Australia. Maori are the Indigenous people of Aotearoa New Zealand. Across the Pacific, navigation, language, art and exchange connect different island societies. These are contemporary communities with different histories, not a single timeless 'island culture'. Respectful descriptions use the specific name of a people or place.



Distance across the ocean does not mean isolation. Shipping, air travel, communications, tourism and family networks link islands with larger economies. Some imported goods are expensive because of transport and scale; local production and community knowledge can also be important. Ask how a map designed around continents might make island connections harder to see.

Places to find in an atlas

Canberra is Australia's capital; Sydney is a major city but is not the national capital. Wellington is New Zealand's capital, while Auckland is another major city. New Zealand's two largest islands are commonly called the North Island and South Island. Locate Papua New Guinea, Fiji, Samoa and Tonga to expand your view of Oceania beyond Australia and New Zealand. Compare distances over the Pacific with distances inside a familiar region. A small island on a world map may contain a whole community and cannot be understood only through the size of its printed dot.

PAUSE & APPLY

Distinguish Australia from Oceania. Compare a volcanic island and a low coral island using relief, freshwater and transport as criteria.

A Pacific-centred world map can reveal connections that appear split apart at the edges of an Atlantic-centred map.



Ravi asks...

How can a river connect people as well as separate places?



FOUNDATIONS / CHAPTER 08

Antarctica and the polar worlds

A continent under ice

Antarctica surrounds the South Pole and is covered largely by an ice sheet resting on land. The Arctic is a region around the North Pole that includes an ocean, sea ice and nearby lands. This difference matters: Antarctica is a continent, whereas the central Arctic is an ocean. Both are cold, but they have different habitats, human histories and patterns of access.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Polar view; distances from the South Pole are linear in latitude.



Antarctica is a desert because it receives little precipitation over much of its area. Desert describes dryness, not heat. Snow accumulates over long periods, compressing into ice that can flow slowly. An ice shelf is a floating extension of land ice. A glacier, ice sheet, sea ice and iceberg are related to frozen water but are not interchangeable terms.

Life, research and cooperation

Penguins live naturally in the Southern Hemisphere; polar bears live in the Arctic. They do not meet in the wild in an Antarctic scene. Southern Ocean food webs involve organisms such as phytoplankton, krill, fish, seals and seabirds. Seasonal changes in light and ice affect these relationships. A cold landscape can still contain complex ecological connections.

Antarctica has no permanent resident population comparable to that of inhabited continents. Research stations support people for varying periods. Scientists study ice, weather, rocks, oceans and organisms, working with demanding conditions and careful logistics. India operates Antarctic research stations, including Maitri and Bharati. Cooperation under the Antarctic Treaty system helps organise scientific work and environmental protection; current rules should be checked with official sources.



Ice and the wider planet

Ice reflects much sunlight. When darker surfaces replace bright ice, more solar energy can be absorbed. Ice cores also preserve information about past conditions, although interpreting that record requires scientific methods. Melting land ice adds water to the ocean. Floating sea ice behaves differently, so the phrase 'melting ice raises the sea' needs a clear statement of which ice is meant.

Polar places connect with daily life elsewhere through climate, ocean circulation and scientific knowledge. They are not merely distant empty scenery. When a diagram shows an iceberg, remember that it usually places only part of the ice above the surface. When a photograph shows a sunny Antarctic day, remember that seasons and very long periods of daylight or darkness shape life there.

PAUSE & APPLY

Why can Antarctica be both icy and a desert? Explain one difference between sea ice and an ice sheet resting on land.

Wildlife check: an illustration showing polar bears beside Antarctic penguins is fictional, not an accurate habitat scene.

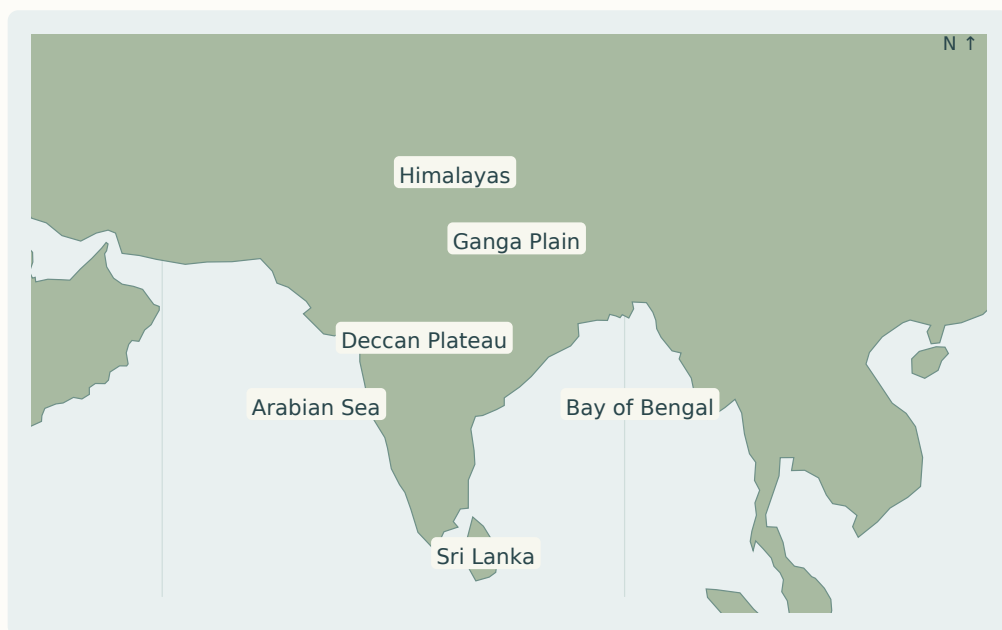


FOUNDATIONS / CHAPTER 09

India: landforms, monsoon and everyday geography

Reading physical regions

India's physical geography includes the Himalayan mountain region, the northern plains, the peninsular plateau, deserts, coastal plains and islands. These categories simplify a varied landscape, so use them as a first guide. The northern plains include extensive deposits laid down by river systems. The plateau includes older rock landscapes with different elevations and river patterns. A physical map uses colour to represent height, not simply scenery.



Coastlines: Natural Earth, public domain. Coastline locator; political borders are omitted. Selected labels are approximate; small islands may be absent. Cylindrical view; this map does not preserve area.



The Western and Eastern Ghats border parts of the peninsular plateau. The western coastal plain is generally narrower than the eastern one. Rivers flowing from different regions have different catchments and seasonal behaviour. The Ganga system, the Godavari, Krishna, Narmada and other rivers connect settlements, farming and ecosystems. Some rivers flow west and others east; neither direction is a rule for all Indian rivers.

Rainfall and livelihood

The summer monsoon supplies important rainfall across much of India. Distribution varies with wind direction, relief and other conditions. Parts of the western slopes of the Western Ghats receive high rainfall, while areas to the east can lie in a rain shadow. Parts of southeastern India receive important rainfall during the northeast monsoon season. A single sentence about 'the Indian rainy season' cannot explain every region.

Rainfall patterns help shape crop calendars, reservoir planning and water storage. Farmers also use irrigation, soil knowledge, seed choices and market information. A failed crop may have several causes: water stress, pests, costs or extreme weather. Geography helps connect these influences, but a climate map alone cannot explain a family's income. Always ask what evidence a conclusion needs.



Geography close to home

A neighbourhood has a physical geography: slopes, drains, soil, trees and water paths. It also has a human geography: homes, shops, workplaces, transport and services. The two interact. Paving may speed runoff; a blocked drain can make a modest rainstorm disruptive; shade can change how comfortable a walking route feels. These examples make large geographic ideas visible nearby.

India's cultural diversity includes languages, food traditions, architecture and ways of using land. Environments influence materials and livelihoods, but people also adapt and exchange ideas. A coastal place may use imported foods; a mountain town may depend on distant trade. Resist the shortcut that a region's climate explains every aspect of its culture.

PAUSE & APPLY

Draw a cross-section from a coast across a hill range. Explain a possible rain shadow without claiming that every hill creates the same rainfall pattern.

Map note: use a current, authoritative Indian atlas for political boundaries. The illustrations here teach physical relationships and are schematic.



Raj asks...

Which part of this journey is missing from the label?

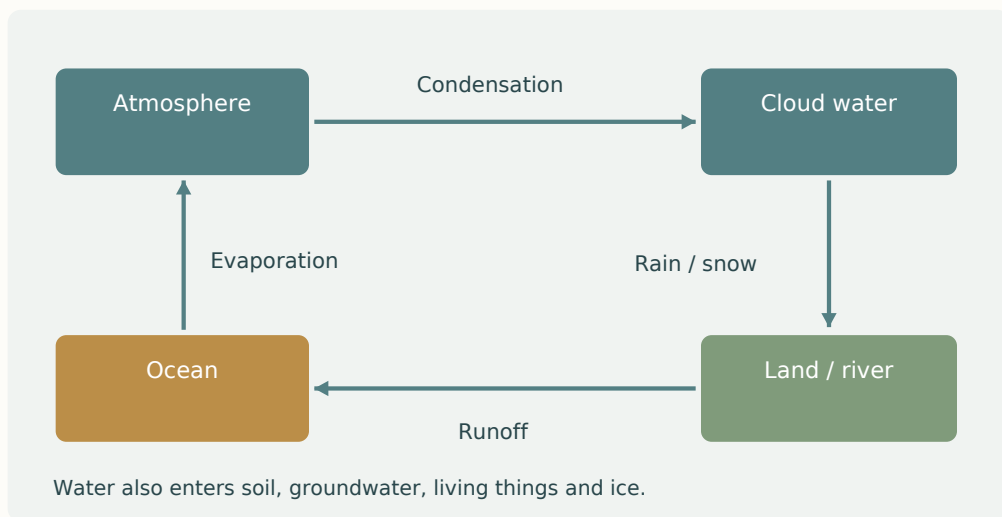


FOUNDATIONS / CHAPTER 10

Rivers, coasts and the changing surface

A journey from source to mouth

A river begins from sources such as springs, rainfall-fed streams, lakes or melting snow and ice. Smaller streams join as tributaries. The land draining into a system forms its basin. Gravity moves water downhill, but a river's journey can include steep channels, broad valleys and flat floodplains. The mouth is where it enters another river, a lake or the sea. A delta forms where sediment is deposited in a suitable setting; not every river has one.



One possible route through the water cycle. Actual rivers have tributaries, groundwater connections and temporary stores.



Erosion removes material; transport carries it; deposition leaves it behind. Fast-moving water can carry sediment that settles when flow slows. These processes may occur at the same time in different parts of a channel. A meander is a bend in a river. Over time, a bend may change as erosion and deposition reshape its banks. A map captures one moment in a continuing story.

Why floodplains attract settlements

Floodplains can offer fertile soils and relatively level land. They can also flood. A benefit and a risk may belong to the same feature. Embankments, reservoirs, wetlands and warning systems can change flood outcomes, but no single measure solves every problem. Development that blocks drainage or removes wetlands may increase damage elsewhere. An upstream decision can have downstream consequences.

Groundwater occupies pores and cracks in soil and rock. An aquifer is a water-bearing formation that can store and transmit groundwater. It is usually not a huge underground lake. Wells draw on this stored water. Recharge depends on local conditions and infiltration. If extraction exceeds replenishment for long periods, water levels can decline. Protecting water quality is as important as measuring quantity.



At the shore

Coasts are shaped by waves, tides, currents, sediment and human construction. A beach is not fixed forever. Dunes and coastal vegetation can help protect land, while buildings too close to vulnerable shores can face erosion or storm damage. Mangroves grow in suitable tropical coastal settings and support habitats and livelihoods. They cannot be planted successfully on every coast without considering ecological conditions.

A map showing a coastline uses a chosen scale and moment. At high detail, the shore is more irregular; tides can change the visible waterline. This is another reminder that maps are representations. Good geographic knowledge combines the map with observation, measurements and information about change over time.

PAUSE & APPLY

Explain why a floodplain can be useful and risky. What is wrong with drawing all groundwater as one hollow underground pool?

Key chain: weathering loosens or changes rock; erosion removes material; transport moves it; deposition places it somewhere new.



CONNECTED ENQUIRIES / 02

The world behind a shared river

Geography / Politics

In a fictional basin, Hillbank, Fieldside and Riverport use the same river. Hillbank proposes a reservoir. Fieldside depends on seasonal water for crops. Riverport worries about low flows near its intake. Ravi draws one blue line through the three places. Raj draws three separate council boxes. Elena asks why the water map and the decision map do not match.

Look behind the scene

Politics includes the ways people negotiate shared decisions, power and responsibilities. A river can cross several administrative boundaries while remaining part of one connected system. A decision upstream can affect people downstream.

Cooperation needs more than a promise. The communities need observations, agreed responsibilities, a way to hear smaller groups and a process for reviewing results. Geography helps identify connections; public reasoning helps decide what to do about them.

Ravi, Raj & Elena join the enquiry

**Ravi**

If water connects us, should our evidence also be shared?

**Raj**

Who decides how much is enough, and who checks the decision?

**Elena**

I would ask people near the river and people whose homes are far from meetings.



Question, compare, decide

Place	Concern
Hillbank	Storage and flood management
Fieldside	Water at the right time
Riverport	Reliable intake and river health

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Draw the river and add arrows showing two possible downstream effects.
2. Give each community one question it should answer before making a proposal.
3. Suggest a review rule that all three places could inspect.

A worked way to think about it

The table describes interests, not a proven solution. A reservoir proposal needs evidence about seasonal flow, affected habitats, safety and people who may be displaced. A shared record of releases and downstream conditions could support review. It would not by itself settle every disagreement about fairness.

PHILOSOPHY FOR AN ORDINARY DAY

If one place can control a resource, does that mean it should have the final word? Give a reason that considers both responsibility and the people affected.

Natural systems and decision boundaries often need to be studied together.

**GEOGRAPHY IN PRACTICE / CHAPTER 11**

Where am I? From home to planet

The address that kept growing

Meera is writing a letter to a cousin. She begins with the name of her lane. Her brother adds the village, her grandmother adds the district, and their teacher adds India. Then Meera writes Earth. Everyone laughs, but no one can say that she is wrong. Later, she draws a dot for her home. The dot is large on a map of the lane and invisible on a map of the world. Has her home become less important? Of course not. The map has changed its purpose. By evening, her address has become a question about belonging: how many places can one person belong to at once?

Understanding the idea

A useful map does more than tell you where to go. It helps you ask a question at the right scale. A broken drain needs a street map; a river flowing through several districts needs a regional map. The details that solve one problem can hide another. When you zoom out, you gain connections and lose detail. When you zoom in, you gain detail and may lose the wider pattern. Neither view is automatically better.

A map is a model, not the territory itself. Every map selects some things to show and leaves other things out.



Absolute location uses coordinates; relative location describes where something is in relation to something else.

A worked example

On a fictional neighbourhood map, the library is in square B2 and the water tank is in D2. Each square is 100 metres across. Along the straight east-west grid route, the distance is 200 metres. If a wall blocks the direct route and requires one square north and one square south, the walking distance becomes 400 metres. A coordinate locates a place; it does not promise an easy journey. If the map scale is 1:10,000, one centimetre represents 100 metres. Measure a route along its bends rather than measuring only the gap between its endpoints.

Look beyond the first answer

Latitude measures angular distance north or south of the Equator; longitude measures angular position east or west of the prime meridian. They are coordinates, not distances in kilometres. Lines of latitude are parallel, but meridians meet at the poles. This is why one degree of longitude covers different ground distances at different latitudes. For a first map, a grid with letters and numbers is enough to practise the same locating habit.

Studio • Draw five public landmarks on a four-by-four grid. Give each a coordinate. Write a route that a partner can follow without asking you questions. Add a barrier, then revise the directions. Keep real home addresses off a shared classroom map.

Take it further • Map your "daily geography": every place you visit in one ordinary day, why you go there, and what connects those places.



GEOGRAPHY IN PRACTICE / CHAPTER 12

Maps have arguments

The map that forgot the bridge

A school group plans a walk using a map printed years earlier. It shows a bridge that no longer exists. Another map shows a shopping road but leaves out the narrow footpath used by many families. Both maps look neat and official. Only when the children speak with local residents do they notice what is missing. Farhan says the maps are useless. Asha disagrees: they are useful if you know their limits. The group starts writing three questions beside every map: who made it, when was it made, and what was it made for?

Understanding the idea

Imagine cutting an orange peel and pressing it onto a table. It tears, stretches or refuses to lie flat. Showing a round planet on flat paper creates a related problem. A projection chooses which distortions to accept. A Mercator map preserves local angles, useful for some navigation tasks, but greatly enlarges areas near the poles. An equal-area projection preserves relative area while changing shapes. Neither turns the Earth into a perfect flat picture.

Large areas can look distorted when a round Earth is shown on a flat surface. No world projection preserves every property perfectly.



Elena asks...

Is a short distance on a map always a short journey in life?



Political borders are human agreements and may be disputed; physical features such as rivers and mountains do not always match political boundaries.

A worked example

Two imaginary districts each contain 10,000 people. District A covers 100 square kilometres; B covers 20. Their total populations are equal, but their densities are 100 and 500 people per square kilometre. A total-population map would colour them alike. A density map would show a difference. That does not prove B has worse housing or fewer services. To answer those questions, you need additional information. A good map can suggest a question without answering every question.

Look beyond the first answer

Map colour can make a quiet argument. A dark shade may look alarming even when it represents only a small difference. A map showing total population answers a different question from one showing population per square kilometre. Always read the legend, units and category boundaries. A map also needs a date and source. Borders may be disputed or represented differently; this book's world illustrations show land and oceans rather than political boundary claims.

Studio • Make two maps of the same imaginary town: one for a visitor, one for a wheelchair user. Explain three choices that differ. Add a legend, source note and date. Ask a partner what your maps leave out.

Take it further • Find or sketch two different maps of your area and write: "This map helps me see... This map hides..."

**GEOGRAPHY IN PRACTICE / CHAPTER 13**

Earth is a moving system

A river writes its own story

After rain, a thin stream cuts a channel through the dust beside the learning centre. Kabir places a pebble in its path. Water curves around it and leaves a little fan of sand downstream. Next morning the channel is dry, but its shape remains. A tiny event has left evidence. His guide asks him to imagine the same processes operating through many rainy seasons. The children begin seeing the landscape differently: a bend, a sandy patch and a low bank are parts of a continuing story, not scenery that has always stayed still.

Understanding the idea

Weathering breaks rock down where it is. Erosion moves material away, and deposition leaves it somewhere new. A river can do all three along its course. Steeper slopes often give flowing water more energy; slower water can drop some of the material it carries. The result depends on the volume of water, the size of particles and the shape of the channel, not on slope alone.

Rivers are systems: rainfall, slope, soil, vegetation and human structures affect how water moves.

Natural hazards become disasters when they meet vulnerable people, buildings or systems; risk is not only about the hazard itself.



A worked example

Build two small slopes in trays: one with bare soil and one with a layer of leaves. Add equal small amounts of water at the same height. Compare the collected runoff and visible sediment. The leaf layer may change how water enters and leaves the surface. You have modelled one feature, not proved how every real forest behaves. Record differences in soil packing and slope as possible sources of error. Do not collect water from a river or approach a flooded drain for this investigation.

Look beyond the first answer

A watershed is an area whose water drains towards a shared outlet. Its boundary usually follows higher ground. The boundary does not have to match a district or state border. If a settlement upstream removes vegetation or covers ground with concrete, runoff downstream may change. Plate movement, meanwhile, reshapes Earth on much larger timescales. Mountains and earthquakes belong to this wider system. Different geological processes operate at very different speeds.

Studio • Sketch the path of rainwater from a roof to its outlet. Mark where it slows, enters soil or carries litter. Observe from a safe dry location. Predict one change that would reduce erosion, and explain how you could test the idea in a tray.

Take it further • Interview an older person about a local river, pond, hill, coast or seasonal weather pattern. What has changed in their lifetime?

**GEOGRAPHY IN PRACTICE / CHAPTER 14**

Weather, climate and everyday decisions

The day that fooled the calendar

It is unusually cool on a day everyone expected to be hot. Nila says summer must have disappeared. Her neighbour remembers another cool day many years earlier. Their teacher brings a different kind of evidence: records from many days and many years. Nila realises that her experience is real, but the conclusion was too large. Later she records the day's weather in a notebook. The entry is useful precisely because it is one small piece of a much longer story.

Understanding the idea

Weather is the atmosphere's condition over short periods. Climate describes long-term patterns, including averages, variation and extremes. Scientists commonly use 30-year periods for climate normals. An average alone can hide important differences: two places may receive similar annual rainfall, but one may receive it in gentle showers and the other in a short intense season.



Local climate is influenced by latitude, elevation, distance from water, winds and terrain.

People adapt to climate through buildings, clothing, crops, work timings and water systems.

A worked example

In a fictional ten-day log, daily rainfall is 0, 0, 0, 2, 0, 0, 0, 18, 0 and 0 millimetres. The total is 20 millimetres and the daily average is 2. Yet it did not rain 2 millimetres every day. Most days were dry, and one day supplied nearly all the rain. A bar chart reveals what the average hides. Ten days describe this short period; they cannot establish the area's climate trend.

Look beyond the first answer

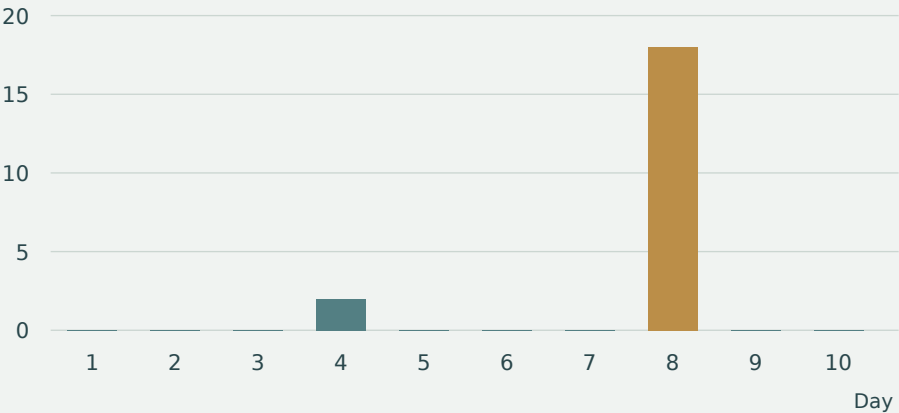
A forecast expresses a best estimate with uncertainty. A rain probability is not a guarantee that rain will fall at your home, nor a promise about what fraction of the day will be wet. Its exact interpretation depends on the forecasting service's definition. Good decisions combine the forecast with the cost of being wrong. Carrying a light raincoat is a small precaution; cancelling a major event has larger consequences. Local knowledge is useful, but its claims can also be compared with records.



Studio • Keep a two-week observation log at the same time each day. Separate measured temperature from a description such as feels warm. Record missing days honestly. Compare shade and sun only with safe methods and matched instruments. Finish with one claim your log supports and one it cannot support.

Take it further • Design a "climate-smart" classroom or house for your local conditions using passive shade, ventilation and water-saving ideas.

Rainfall (mm) · fictional ten-day record



The ten-day record from the worked example. A daily mean of 2 mm hides eight dry days and one much wetter day.

**GEOGRAPHY IN PRACTICE / CHAPTER 15**

Why people live where they live

Two places called home

Rafi's mother works in a nearby town during the week. At the weekend she returns with stories about crowded buses, new friends and unfamiliar foods. Rafi used to describe the town as where she lived and the village as where she belonged. Now he notices the connection between them: money pays for repairs at home, vegetables travel to town, and relatives exchange advice by phone. Movement has not erased either place. It has created a relationship between them.

Understanding the idea

Settlements develop where people find combinations of water, land, transport, work, security and social connections. A railway station can attract shops; shops can attract more customers; growing demand can create more jobs. This is a feedback process, not a single cause. Growth can also create pressure on rent, water and travel times. People experience these changes differently.

Population density is not simply "crowdedness"; it is a relationship between people and area and can vary sharply within one district.

Migration can be temporary or permanent and may be driven by work, education, family, safety, environment or aspiration.



A worked example

An imaginary family compares two options. Staying offers low rent, relatives nearby and irregular work. Moving offers steadier work, higher rent and a longer school journey. A job paying more may still leave less money after travel and housing. The family also values caregiving and language comfort, which a simple income calculation misses. A fair comparison records both measurable costs and the family's own priorities. There is no single answer for every household.

Look beyond the first answer

Migration includes seasonal work, study, family reunification and movement after disasters or conflict. A push-pull diagram is a starting point, not a complete explanation. A person may want to move but lack money or documents, or choose to stay because of care responsibilities. Ask about agency and constraints. Avoid treating rural places as backward or urban places as automatically successful. Every place contains skills, opportunities and difficulties.

Studio • Invent a household and compare three possible places to live. Include access to school, cost, care, transport and work. Write a reason for staying as well as moving. Interview people only with permission; nobody has to share personal income or migration history.

Take it further • Make a "push, pull and connection" diagram for migration in or out of your locality using interviews or observation, without collecting private personal details.



Ravi asks...

What changed: the weather today or a pattern over many years?

**GEOGRAPHY IN PRACTICE / CHAPTER 16**

The journey of a T-shirt

The label inside the shirt

While folding a shirt, Dev finds a label naming a place far away. He imagines one long journey from that place to his house. His sister points out that the cotton, buttons, dye and packaging may have travelled separately before the shirt existed. The label tells one part of the story. By lunchtime, Dev has drawn a web rather than a line. A familiar object has become a way to meet people whose work he has never seen.

Understanding the idea

A supply chain connects materials, labour, machines, finance, transport and sales. Some stages happen near one another; others cross oceans. A product's final assembly location does not identify every material's origin. Supply chains also branch: one supplier may serve several factories and one factory may use many suppliers. A simple diagram should acknowledge those missing branches.

Trade connects distant producers and consumers, but value and risk are not always shared equally.

Transport choices depend on cost, speed, distance, infrastructure and environmental impact.



A worked example

For a fictional shirt sold for Rs 400, a classroom cost model allocates Rs 100 to materials, Rs 80 to manufacturing, Rs 40 to transport and Rs 180 to retail costs and margin. These illustrative categories add to Rs 400, but they do not tell us any individual worker's wage. If transport rises by Rs 20, the seller may raise the price, reduce margin or alter another cost. The outcome depends on choices and agreements, not arithmetic alone.

Look beyond the first answer

Price is not a direct measure of how hard someone worked. It can include materials, wages, rent, energy, shipping, taxes, marketing, profit and losses. Who receives what share is a question requiring evidence. A cheap product may save a buyer money while creating costs elsewhere; a costly product is not automatically fairer or greener. Ask about durability, working conditions, reuse and the credibility of any label.

Studio • Choose one object and trace at least six stages. Use packaging, a seller's explanation and a trusted source where available. Mark each statement known, inferred or unknown. Add a repair or reuse pathway. Do not turn a guessed origin into a fact.

Take it further • Trace one household product from raw material to your home. Create a supply-chain map with at least five steps.



CONNECTED ENQUIRIES / 03

A T-shirt is a chain of people

Geography / Economy

At a repair stall, Raj notices that the shirt he wears has passed through many hands. Ravi lists growing cotton, spinning, weaving, stitching and transporting. Elena adds packaging, selling and repairing. A tag names only one stage. The friends draw the whole chain and discover how much work can remain invisible when an object looks simple.

Look behind the scene

An economy includes producing, exchanging and using goods and services. A supply chain links stages that can happen in different places. A shirt may connect a farm, a workshop, a warehouse and a shop. Transport and communication make those links possible.

A selling price is not the same as every worker's earnings. Costs, agreements, risks and bargaining power influence how money is shared. Repair can extend an object's useful life; it also uses skilled work. To understand value, follow people and materials as well as money.

Ravi, Raj & Elena join the enquiry

**Ravi**

Which stage did I forget because I never see it?

**Raj**

If a shirt costs more, can we assume the person who stitched it earns more?

**Elena**

The repairer belongs on our map too. The journey does not end at the shop.



Question, compare, decide

Stage	A question to investigate
Making	What skills and materials are needed?
Moving	How do time and transport affect cost?
Selling	What does the price include?
Repairing	What makes the item last longer?

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Choose a familiar object and map at least five stages in its journey.
2. Mark a stage you know about and a stage for which you would need evidence.
3. Explain one benefit and one limitation of buying a longer-lasting item.

A worked way to think about it

A pencil could connect wood or another casing material, graphite preparation, assembly, packaging, transport and retail. The exact chain depends on the manufacturer. A durable item may need fewer replacements, but a higher upfront price can limit access. Avoid judging a family's choice from the object alone.

PHILOSOPHY FOR AN ORDINARY DAY

What makes a price fair: time, skill, need, risk or agreement? Try two answers, then look for a case where they lead to different conclusions.

Follow the work hidden inside an everyday object.

**GEOGRAPHY IN PRACTICE / CHAPTER 17**

Food, water and energy systems

The hidden journey in a glass

Tara fills a glass and watches the tap stop dripping. She has never wondered what happened before the water arrived. A visiting guide asks the group to imagine the tap failing. Who would they call? Where might the problem be? Their answers include a tank, a pump, a pipe and an electricity supply. Suddenly the glass contains a whole system. Tara looks at it again: the water seems ordinary, but getting it to her has required many people and decisions.

Understanding the idea

A system contains parts linked by flows. Water systems involve sources, storage, treatment, distribution, use and wastewater management, though the exact arrangements vary. A pump can be mechanically sound yet fail when electricity is unavailable. A pipe can deliver water yet leave some households underserved because of pressure, timing or distance. Reliability depends on relationships among parts.

Access can differ even within the same town because of geography, infrastructure, income, governance and season.

Food systems connect soil, water, labour, markets, storage, transport and household choices.



A worked example

Imagine a water tank holding 1,000 litres. If a community uses 200 litres an hour and no water enters, the tank lasts five hours. If an unnoticed leak removes another 50 litres an hour, it lasts four. This simplified calculation assumes a constant rate. Actual use changes through the day and tanks may have unusable remaining volume. The example shows how a small flow can change reliability without making the tank itself smaller.

Look beyond the first answer

Visible clarity does not prove water is safe to drink. Some harmful contaminants are invisible. This book uses clean supplied water for models and never asks learners to taste unknown water. A classroom filter can demonstrate removal of visible particles; it must not be presented as producing drinking water. Food and energy systems deserve the same attention to hidden stages: storage losses, fuel supply, maintenance and unequal access can matter as much as production.

Studio • Draw a system map for a meal or a glass of supplied water. Add at least two points where the system could fail. Suggest one improvement and one possible side effect. For any audit, use observation and estimates rather than touching pumps, wires or treatment equipment.

Take it further • Conduct a no-cost resource audit: where water or electricity is used in the learning centre, what is essential, and where waste might be reduced.

**GEOGRAPHY IN PRACTICE / CHAPTER 18**

Culture has a geography

The travelling taste

At a community meal, Leela hears three different names for a similar bread. One person says it is the only authentic version; another says her family makes it differently. Then an older relative explains how work, marriage and travel brought new ingredients into local kitchens. Leela stops searching for a single frozen original. She begins asking who cooks it, when it is eaten, and what memories come with it. The meal becomes a map of relationships.

Understanding the idea

Culture has geography, but people are not fixed inside geographic boxes. A language may be spoken across borders; a neighbourhood may contain several languages; a festival may change as people move. Diffusion is the movement of practices or ideas, often through trade, migration, media and ordinary friendship. Borrowing can be respectful, unequal or contested, depending on the relationships involved.

Geography can shape culture, but culture also travels through migration, trade, media and technology.

Regions are not boxes with one culture; every region contains differences, overlaps and mixtures.



A worked example

Three fictional households prepare the same named dish. One uses millet, one uses rice, and one changes the filling for a seasonal vegetable. The dish name is shared, but the ingredients and occasions differ. Your conclusion can be: these households practise related versions. You cannot conclude: everyone in this region cooks this way. To investigate further, ask more people and identify when and where each account applies.

Look beyond the first answer

Descriptions such as traditional or modern need care. A tradition can use new materials while keeping an older purpose. A person can care about heritage and experiment at the same time. Ask whose voice defines the practice. Community members may disagree, and no single interview represents everyone. A cultural map should show variation and connections rather than turning a place into one dish, costume or belief.

Studio • Make a small cultural atlas of three everyday practices. Include the speaker's own description and permission to use it. Identify one variation and one connection for each. Avoid sacred symbols or restricted stories unless community members explicitly welcome their use.

Take it further • Collect three local words, songs, designs or food practices and research how they may have travelled or changed over time.



Raj asks...

Who might use this resource before it reaches us?



GEOGRAPHY IN PRACTICE / CHAPTER 19

Inequality on a map

Near on paper, far in life

A new clinic appears close to a group of homes on a map. The children count the squares and call the problem solved. Then someone notices the river. Another notices that the only bridge adds a long walk. A third asks whether the entrance has steps. Distance was real, but it was only one part of access. The group redraws its map with journeys rather than circles. The question changes from how far is it to what does it take to get there?

Understanding the idea

Access includes time, money, safety, opening hours, physical design, information and whether a person is welcomed.

Straight-line distance can be useful for an initial comparison, but it may not reflect a real route. A bus service can reduce distance in practical terms without moving a building. A locked gate can do the opposite.

A straight-line distance may not reflect real access: roads, rivers, safety, cost and disability can change the journey.

Maps can reveal patterns but should be combined with people's experiences and careful interpretation.



A worked example

On an invented map, a clinic is one kilometre from a settlement across a river. The nearest bridge makes the walking route four kilometres. At an assumed walking speed of four kilometres an hour, that is about one hour instead of fifteen minutes, before rest or waiting. A vehicle, mobility limitation or unsafe crossing changes the calculation. The result explains a barrier; it does not describe every resident's journey.

Look beyond the first answer

Averages can conceal unequal experiences. A town's average travel time may be low while one neighbourhood faces a much longer journey. Disaggregate carefully: compare groups or areas only when the data support it, protect privacy and avoid stigmatising labels. Mapping a difficulty should help improve a service rather than expose a person's home or circumstances. Ask residents what the map misses before proposing a solution.

Studio • Choose a public service and list six possible access barriers. Use an imaginary map or publicly known landmarks. Redesign one route or entry arrangement. Explain who benefits, what it costs and whose experience you still need to hear.

Take it further • Pick one service. Propose one realistic change that would improve access and explain who benefits and what it might cost.



GEOGRAPHY IN PRACTICE / CHAPTER 20

Our locality in the world

The world inside one morning

Before breakfast, Omar has used a cup, a phone alarm and a packet of tea. Each object connects his morning to places and people beyond his village. Later, a change in transport delays goods in the market. A distant event has arrived locally without anyone travelling abroad. Omar's group pins a local map beside a world map and connects them with threads. The threads cross so often that the children can no longer describe their locality as separate from the world.

Understanding the idea

Local and global are scales of connection, not competing identities. A local harvest may depend on nearby water and distant fuel prices. A global weather pattern may affect a regional rainy season. To explain an event, move between scales and identify the actual mechanism connecting them. Simply saying everything is connected is too vague to help.

Globalisation does not make every place the same; it creates new connections while local histories continue to matter.

Thinking at multiple scales prevents two mistakes: treating a local problem as isolated, or assuming a global trend explains everything.



A worked example

A fictional tea stall raises its price. Learners suggest weather, transport, rent and packaging costs. They gather a seller's explanation and compare two dated receipts. Those sources support a recent increase in packaging cost, but they do not rule out every other cause. A careful report says the seller identified packaging as one factor, supported by these receipts. It does not announce a complete explanation of tea prices everywhere.

Look beyond the first answer

Good geographic inquiry combines observations, maps, interviews and records. Each gives a different kind of evidence. A personal account reveals experience; a map reveals position; a time series reveals change. Agreement among sources can strengthen a conclusion, but disagreement is also useful. It tells you where categories, timing or assumptions may differ. Finish an investigation by stating what remains unknown rather than pretending the world has become simple.

Studio • Choose one local object or issue and connect it to three scales. Gather two different kinds of evidence. Make an illustrated page with a claim, sources and an unanswered question. Invite someone else to check whether your arrows explain a real connection.

Take it further • Create a four-minute "Our Place in the World" presentation using one map, one interview, one object and one unanswered question.



EXPLORATION 01 / READ DEEPER

An ocean is a moving system

Oceans connect continents rather than simply separating them. Water moves through waves, tides and currents, which operate in different ways. A wave transfers energy across the surface; it does not usually carry the same parcel of water across an entire ocean. Tides involve the gravitational influence of the Moon and Sun together with Earth's rotation and local geography.

Large-scale currents are influenced by winds, Earth's rotation and differences in water density. They redistribute heat and help shape coastal conditions. A coastal place cannot be understood from latitude alone: nearby water, currents, prevailing winds and landforms also matter.

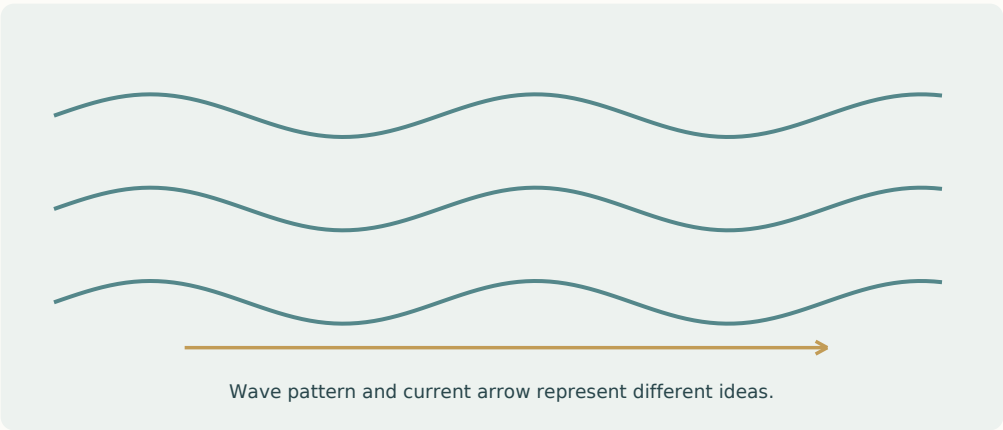
The ocean has depth as well as surface area. Sunlight reaches only an upper part of it, while pressure increases with depth. A map of shipping routes or surface currents answers different questions from a map of the seafloor. Choose the representation that fits the investigation.

Current	a sustained movement of water.
Tide	a regular rise and fall in sea level with astronomical causes.
Continental shelf	a relatively shallow submerged margin of a continent.



EXPLORATION 01 / VISUAL NOTEBOOK

Three ocean movements



Movement	Main feature	Do not confuse it with
Surface wave	Energy moves through water	A whole ocean parcel travelling with each crest
Tide	Sea level rises and falls	A local wind wave
Current	Water flows along a route	The shape of a single wave

These simplified categories can interact. Coastline shape, depth and weather affect local conditions, so a diagram is not a safe navigation guide.

**EXPLORATION 01 / CASE FILE**

Read, notice, question

A pupil sees litter arrive on a beach and assumes it was dropped by visitors that morning. A coastal observer explains that wind, currents and tides can transport floating material from elsewhere.

This does not remove local responsibility for waste. It widens the investigation. The class records where and when litter appears and considers both local sources and transport routes. They observe from safe public areas and do not enter the water or handle hazardous objects.

LOOK AGAIN

Why does the place where litter is found not prove its place of origin? What records would help compare possible sources?

Questions to carry forward

1. Are waves, tides and currents identical?
2. Why can two coastal places at similar latitudes differ?
3. What does a seafloor map reveal that a route map may not?

**Elena asks...**

Which observation would distinguish these two explanations?

**EXPLORATION 01 / TRY IT YOURSELF**

Fieldwork & connections

Use the world map to trace a hypothetical journey between two ports. Identify the ocean basins and narrow passages involved. Add a second layer showing questions about weather, distance and coastal impacts. Label the route as illustrative, not a shipping recommendation.

01 Locate the ports accurately.

02 Name the connected ocean basins.

03 Distinguish route distance from straight-line distance.

04 Explain one environmental question along the route.

A worked starting point

A route between two ports should follow navigable water in the illustrative map rather than a straight line across land. Mark narrow passages as questions for further research. Add separate notes for distance, weather and environmental effects. The map can show connections without pretending to supply the detailed charts and current information required by a real ship.

**EXPLORATION 01 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Are waves, tides and currents identical?

No. They describe different kinds of water movement and sea-level change, although they interact.

2. Why can two coastal places at similar latitudes differ?

Currents, winds, landforms and other conditions influence climate alongside latitude.

3. What does a seafloor map reveal that a route map may not?

It shows underwater relief and depth patterns rather than primarily the connections between destinations.

TAKE IT FURTHER

Compare the questions answered by a globe, a surface-current map and a seafloor profile.



EXPLORATION 02 / READ DEEPER

Deserts are defined by dryness

A desert is characterised by very low precipitation, not necessarily by heat or sand. Some deserts are cold, and many surfaces are rocky or gravelly. The balance between incoming moisture and water loss helps explain the challenges of living in dry environments.

Dryness has several causes. Descending air in subtropical regions often limits rainfall. Mountain ranges can create rain shadows when moist air loses water on the windward side. Far inland, air may have travelled a long distance from moisture sources. Cold coastal currents can also contribute to dry conditions along some coasts.

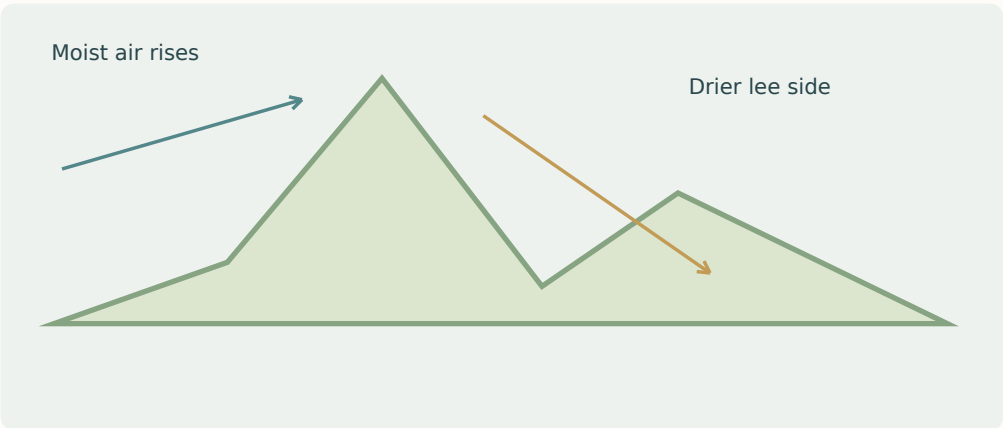
People in deserts use knowledge, infrastructure and adaptation rather than simply enduring an empty landscape. Settlements may depend on groundwater, rivers entering from wetter regions, trade or modern water systems. These supplies have limits and unequal access. A desert should be studied as a lived environment with diverse histories.

Arid	very dry.
Rain shadow	a drier area on the leeward side of a mountain barrier.
Oasis	a place in a dry region where water supports vegetation and settlement.



EXPLORATION 02 / VISUAL NOTEBOOK

Different routes to dryness



Setting	Possible mechanism	Question
Subtropical belt	Descending air limits cloud formation	How does seasonal circulation vary?
Behind mountains	Moisture falls on the windward side	Which direction brings moist air?
Far inland	Limited moisture supply	How far are major moisture sources?
Some western coasts	Cold current and stable air	How do ocean and air interact?

These mechanisms can overlap. A particular desert should be explained using its actual location and conditions rather than one universal story.

**EXPLORATION 02 / CASE FILE**

Read, notice, question

A travel poster shows only dunes and labels a region 'empty wilderness'. A student studies a broader map and finds towns, roads, farms near water and rocky plateaus.

The poster selected one visually striking landscape. It did not provide a complete geographical account. The student creates a new profile that includes water sources and human activity alongside landforms, avoiding the assumption that sparse settlement means no history or knowledge.

LOOK AGAIN

What did the poster omit? How can an attractive image become misleading when treated as a complete description?

Questions to carry forward

1. Must a desert be hot?
2. Why can a mountain create a dry side?
3. Does sparse vegetation prove a place is unused?



EXPLORATION 02 / TRY IT YOURSELF

Fieldwork & connections

Compare the Sahara, Atacama and Gobi on an atlas. Locate each by continent and nearby physical features. Create a profile with landscape, moisture controls and a question about human water use. Avoid unsupported population or temperature figures.

- 01 Locate before describing.
- 02 Distinguish dryness from heat.
- 03 Connect relief and circulation to moisture.
- 04 Include people and water systems.

A worked starting point

A useful comparison begins with locations: the Sahara in northern Africa, the Atacama along part of western South America and the Gobi in interior Asia. Their shared dryness does not imply identical temperatures, surfaces or causes. Connect each profile to its actual physical setting, then mark any unverified detail as a research question.

**Ravi asks...**

How could the same route serve one person and exclude another?

**EXPLORATION 02 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Must a desert be hot?

No. Low precipitation is central; cold deserts also exist.

2. Why can a mountain create a dry side?

Air rising on one side can cool and lose moisture, leaving drier air beyond the barrier under suitable conditions.

3. Does sparse vegetation prove a place is unused?

No. Land use, movement, knowledge and cultural significance may not be obvious in one image.

TAKE IT FURTHER

Design a caption that accurately describes a dune photograph without implying that the whole region is dunes.



EXPLORATION 03 / READ DEEPER

Mountains connect height, water and people

Mountains influence weather, rivers, ecosystems and movement. Temperature generally decreases with altitude in the lower atmosphere, but local conditions vary. A short horizontal journey uphill can therefore cross noticeable environmental changes.

Mountain water links distant places. Snow and ice can store water, while rain and meltwater feed streams that join larger rivers. Downstream communities may depend on processes occurring far beyond their boundaries. Changes to vegetation, roads or slopes can alter runoff and erosion.

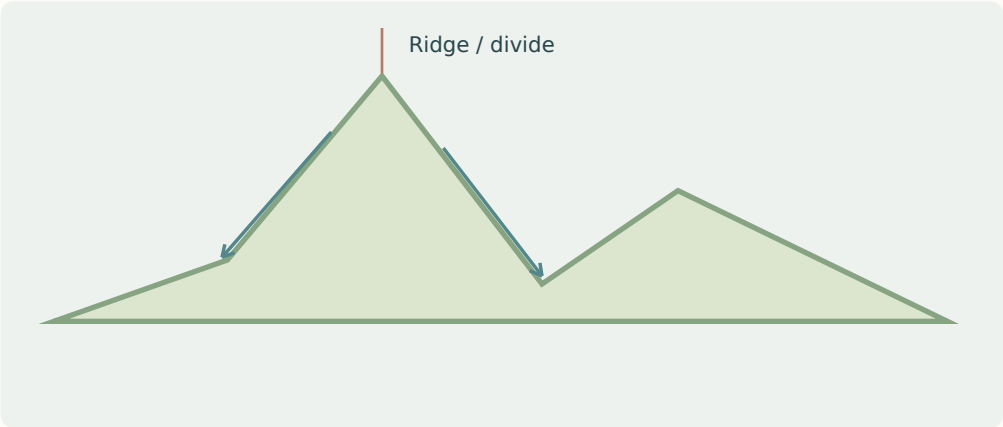
Mountain life is not one uniform way of living. Valleys, plateaus, slopes and passes create different opportunities and constraints. Roads improve access but require careful design and maintenance. Tourism can provide income while increasing waste, water demand and pressure on fragile places. Geography examines these connections rather than presenting mountains only as scenery.

Altitude	height above a reference level, usually sea level.
Watershed	a boundary separating drainage areas.
Pass	a route through a lower part of a mountain barrier.



EXPLORATION 03 / VISUAL NOTEBOOK

Read a mountain from valley to summit



Zone	Possible feature	A question
Valley floor	Settlement and river access	Is there flood exposure?
Lower slope	Farms, woodland or roads	How stable is the slope?
Higher slope	Changing vegetation and colder conditions	How does exposure affect use?
Summit or high ridge	Severe weather; sometimes snow or ice	What varies by latitude and season?

This is a conceptual profile. Not every mountain has the same vegetation zones or permanent snow; latitude, climate and height matter.

**EXPLORATION 03 / CASE FILE**

Read, notice, question

A new hill road shortens travel to a market. After heavy rain, loose material blocks a drain and water flows across the road. Some residents call for closing the road permanently; others ignore the damage because access is valuable.

A better inquiry considers both benefits and maintenance. Where does water cross the route? How are cut slopes supported? Who clears drains? A connection that improves daily life still needs care suited to the landscape.

LOOK AGAIN

Why should access benefits and slope risks be considered together? Which observations would help locate the drainage problem?

Questions to carry forward

1. Does every high mountain have permanent snow?
2. Why do upstream changes matter downstream?
3. Is a scenic photograph enough to plan a road?

**EXPLORATION 03 / TRY IT YOURSELF**

Fieldwork & connections

Draw a fictional mountain cross-section showing a ridge, two valleys and rivers flowing away from the divide. Add a settlement and possible road. Explain where the road crosses water and where construction might need special care. Label the drawing as a model rather than an engineering plan.

- 01** Show high and low ground clearly.
- 02** Make river directions consistent with relief.
- 03** Place a route with a stated purpose.
- 04** Identify benefits, constraints and maintenance needs.

A worked starting point

In a simple cross-section, water on opposite sides of a ridge drains into different valleys. A road crossing the ridge may need to pass through several drainage channels. Mark those crossings and explain the need for maintenance. The drawing helps organise geographical questions but lacks the detailed geology and measurements needed for construction.

**EXPLORATION 03 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Does every high mountain have permanent snow?

No. Snow depends on height, latitude, precipitation and seasonal conditions.

2. Why do upstream changes matter downstream?

Water and sediment move through connected drainage systems, carrying effects beyond the original location.

3. Is a scenic photograph enough to plan a road?

No. Planning requires detailed terrain, geology, drainage, environmental and safety information.

TAKE IT FURTHER

Compare the Himalayas and Andes as mountain systems without assuming their climates or cultures are identical.



EXPLORATION 04 / READ DEEPER

Cities are systems of movement

A city brings people, services and activities into close connection. Its geography includes not only buildings but routes, time, cost and access. Two homes the same distance from a school may have very different journeys because of roads, rivers, crossings or transport availability.

Accessibility concerns the ease of reaching a useful destination. Mobility concerns movement itself. Faster traffic does not always mean better access for everyone. A nearby service reached safely on foot can be more accessible than a distant service reached quickly only by people with a car.

Urban land use changes over time. Housing, work, markets, parks and transport compete for space, but their arrangement can also support one another. Studying a city means asking who can reach opportunities, whose journeys are difficult and how changes affect different groups.

Accessibility	ease of reaching a destination or opportunity.
Land use	the purpose for which an area is used.
Transport network	connected routes and services for movement.



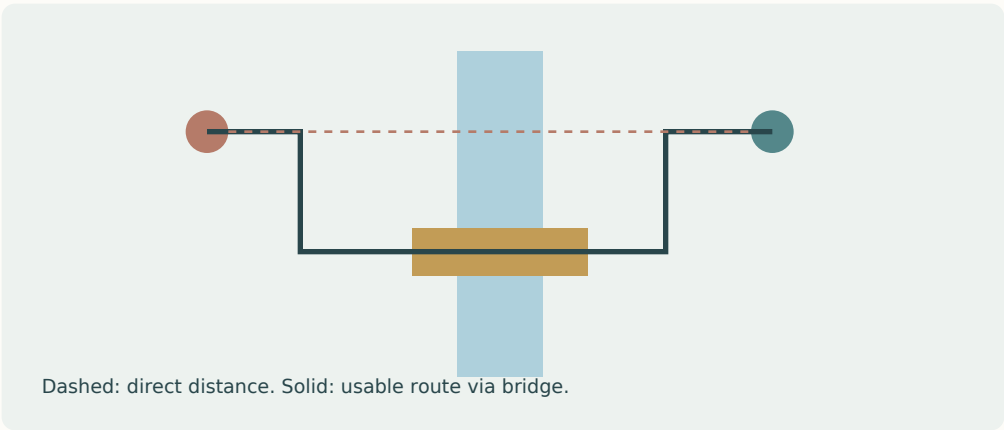
Raj asks...

Where would we look for evidence about conditions upstream?



EXPLORATION 04 / VISUAL NOTEBOOK

Fictional journeys to one library



Home	Straight-line distance	Actual journey
A	1 km	1.4 km on a safe footpath
B	1 km	3 km because of a river crossing
C	2 km	Direct bus, but only twice daily
D	0.8 km	Short route with a difficult crossing

Distance alone does not rank accessibility. Time, cost, safety, service frequency and individual needs all affect the journey.

**EXPLORATION 04 / CASE FILE**

Read, notice, question

A map shows a library close to every neighbourhood, so a report declares access equal. A student traces real routes and finds that one neighbourhood is separated by a railway with only a distant crossing.

The student adds journey time and crossing information. The map becomes more useful because it represents the routes people can actually use. A circle drawn around a building is a starting model, not a complete account of access.

LOOK AGAIN

Why is equal straight-line distance not equal access? Which extra map layer would improve the report?

Questions to carry forward

1. How does accessibility differ from movement speed?
2. Why can a river increase route distance?
3. What makes a map socially informative?

**EXPLORATION 04 / TRY IT YOURSELF**

Fieldwork & connections

Draw an invented town with a river, bridge, homes and three services. Compare straight-line and route distances for two homes. Add one transport improvement and describe who benefits and who may remain underserved. Do not map classmates' private addresses.

01 Give the map a key and scale statement.

02 Trace usable routes rather than imaginary shortcuts.

03 Include time or frequency where relevant.

04 Evaluate the change for more than one user.

A worked starting point

Place two homes equally far from a library in a straight line, then put a river between one home and the library. A distant bridge creates a longer route for that home. A new safe crossing may improve access more directly than increasing traffic speed elsewhere. Compare who benefits and whether the crossing suits different users.

**EXPLORATION 04 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. How does accessibility differ from movement speed?

Access asks whether people can reach what they need; speed describes how quickly movement occurs.

2. Why can a river increase route distance?

Crossings may be limited, requiring a detour even between nearby points.

3. What makes a map socially informative?

It connects physical routes and services with the experiences and constraints of different users.

TAKE IT FURTHER

Improve access without adding a faster road. Explain your choice.



CONNECTED ENQUIRIES / 04

Cities, work and the cost of distance

Geography / Opportunity

Elena draws two homes the same distance from a town workshop. Ravi's route has a frequent bus; Raj's imagined route requires two changes and a long wait. On the ruler, the distances look equal. On the timetable, they are different. The friends begin an access map that includes travel time, cost and who can make the journey.

Look behind the scene

Access depends on routes, services, affordability and a person's circumstances. The shortest route is not always the easiest. A market or job can be nearby on paper and still difficult to reach.

Transport choices have economic and public consequences. Workers lose time when a service is unreliable; businesses may struggle to move goods. A new route can help some people and leave others out. Ask whose journey improves, who pays and what evidence supports the change.

Ravi, Raj & Elena join the enquiry

**Ravi**

Should our map show waiting as well as travelling?

**Raj**

The cheaper fare may still cost more of a person's day.

**Elena**

What would we miss if we interviewed only people who already use the bus?



TRY THE ENQUIRY / GEOGRAPHY / OPPORTUNITY

Question, compare, decide

Fictional journey	One-way time / fare
Route A	20 minutes / ₹15
Route B	50 minutes / ₹10
Route C	35 minutes / ₹20

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Find the fastest and cheapest routes. Explain why neither is automatically best for everyone.
2. Calculate each route's return fare for one day, using the same fare in both directions.
3. Add a missing factor that could change a traveller's choice.

A worked way to think about it

Route A is fastest; Route B has the lowest fare. Return fares are ₹30, ₹20 and ₹40. These numbers do not show reliability, safety, accessibility, departure times or walking distance. A timetable that fits one worker may not fit another. Good access questions include people who cannot currently make the trip.

PHILOSOPHY FOR AN ORDINARY DAY

Is time a resource that everyone has in equal amounts? Consider care work, travel and rest before comparing two people's opportunities.

Access is a relationship between a place, a route and a person.



EXPLORATION 05 / READ DEEPER

A river basin has many neighbours

A river basin includes the land drained by a river and its tributaries. Water links slopes, streams, floodplains and settlements. The basin boundary follows divides in the landscape rather than necessarily matching administrative borders.

Rivers erode, transport and deposit material. The balance changes with flow, slope and sediment supply. Floodplains are shaped partly by repeated flooding and can support fertile soils, but settlement there may face exposure to high water. Flooding becomes a disaster through the interaction of a hazard with people, assets and vulnerability.

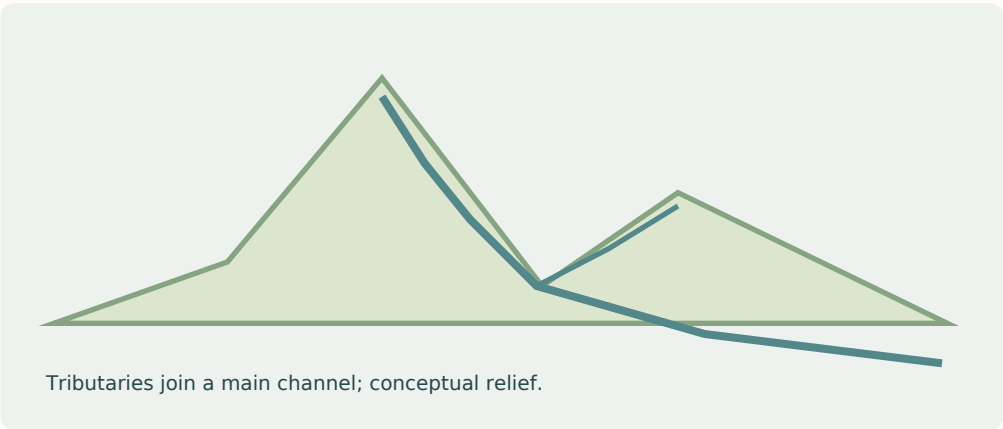
Water management involves competing needs: households, farming, industry, ecosystems and energy. A solution useful in one location can create costs elsewhere. Thinking at basin scale helps reveal these connections, while local knowledge explains details that a broad map may miss.

Basin	land drained by a river system.
Tributary	a smaller river joining a larger one.
Floodplain	relatively flat land beside a river shaped by flooding and deposition.



EXPLORATION 05 / VISUAL NOTEBOOK

Follow water through a fictional basin



Location	Use or process	Possible downstream effect
Upper slopes	Vegetation and runoff	Changes in sediment movement
Reservoir	Storage and flow regulation	Different timing of water release
Farming area	Irrigation withdrawals	Less water available below
Town	Water use and wastewater	Water-quality questions
River mouth	Sediment deposition	Changing coastal habitats

The table identifies questions, not inevitable outcomes. Effects depend on quantities, timing, treatment and management.

**EXPLORATION 05 / CASE FILE**

Read, notice, question

Two towns argue after downstream water becomes muddy. One blames a farm immediately. A basin map shows several possible sources: a construction site, bare slopes and a tributary swollen by rain.

Investigators compare timing and samples rather than relying on proximity alone. The nearest visible activity is not automatically the source. The map helps organise the inquiry, but measurements are needed to test explanations.

LOOK AGAIN

Why is the basin a useful unit of study? What evidence would distinguish the possible sediment sources?

Questions to carry forward

1. Must a basin match a state boundary?
2. Why can fertile floodplains also be risky?
3. Does a map alone establish the cause of muddy water?

**Elena asks...**

How might a different map scale change our question?

**EXPLORATION 05 / TRY IT YOURSELF**

Fieldwork & connections

Create a basin model on paper with a main river, three tributaries and a divide. Add upstream and downstream settlements. Choose one land-use change and trace two possible consequences. Mark uncertain links with a question rather than presenting every arrow as proven.

01 Make tributaries join in plausible downhill directions.

02 Show the drainage divide.

03 Connect land use to a specific process.

04 Distinguish possible effects from measured effects.

A worked starting point

A tributary should join the main river in a direction consistent with the model's slope. Put the drainage divide on higher ground between basins, not along the river itself. If bare soil is added upstream, increased sediment transport is a possibility to investigate, not a guaranteed numerical result without rainfall and slope information.

**EXPLORATION 05 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Must a basin match a state boundary?

No. Drainage follows terrain, while administrative borders follow other histories and decisions.

2. Why can fertile floodplains also be risky?

The same river processes that deposit fertile material can expose settlements and crops to high water.

3. Does a map alone establish the cause of muddy water?

No. It helps locate possibilities, but timing, samples and other evidence are needed to test causes.

TAKE IT FURTHER

Write a shared-basin agreement with one information-sharing rule and one review measure.



CONNECTED ENQUIRIES / 05

Why a local price can change far away

Geography / Trade

At the weekly haat, Ravi sees a grain price change. Raj immediately blames the shopkeeper. Elena asks what happened before the sacks reached the stall. Their fictional trader reports a delayed delivery and extra storage costs. Another stall reports a smaller harvest. The friends discover several possible explanations and decide that one price cannot reveal the whole story.

Look behind the scene

Prices can be influenced by available supply, demand, production and transport costs, and the way a market is organised. A local change may have a local cause, a distant cause or several causes together. It is an investigation, not a guessing contest.

A supply shock is a disruption to what can be provided. It may affect places differently. A price rise can help a seller with stock while making purchases harder for buyers. Do not confuse an explanation of a change with a judgement that its effects are acceptable.

Ravi, Raj & Elena join the enquiry



Ravi

What evidence would distinguish a delivery delay from a smaller harvest?



Raj

I chose a person to blame before checking the chain.



Elena

Can one event benefit some people and create difficulties for others?



Question, compare, decide

Possible cause	Evidence to seek
Transport delay	Delivery dates and route conditions
Lower harvest	Production records from comparable periods
Higher demand	Sales volumes over a relevant period

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Write two explanations for a fictional price rise and one check for each.
2. Describe how the same change might affect a producer and a buyer differently.
3. Explain why two days of observations may not establish a lasting pattern.

A worked way to think about it

A delayed delivery and increased demand could both raise pressure on available stock, but neither is proved by a price alone. Compare records, dates and quantities. Seasonal differences and changes in quality can complicate comparisons. Keep uncertainty visible rather than choosing the most dramatic story.

PHILOSOPHY FOR AN ORDINARY DAY

When a problem has many causes, how should we assign responsibility? Separate what someone caused, what they could prevent and what they can help repair.

A local price is a clue to investigate, not a complete explanation.



EXPLORATION 06 / READ DEEPER

Islands, coasts and changing shorelines

A coastline is a zone of interaction between land and sea. Waves, currents, tides, sediment and human structures shape it. Beaches can change seasonally, and one photograph may capture only a temporary condition.

Islands differ greatly in origin and environment. Some are volcanic, some are parts of continental landmasses and some are associated with coral reefs. Their water supplies, soils, relief and connections to other places vary. Small area does not imply a simple geography.

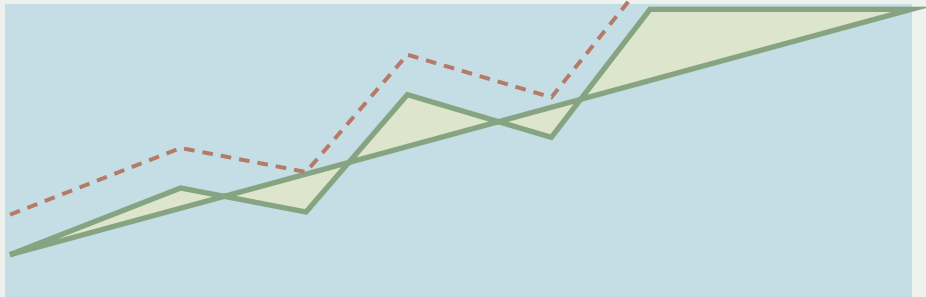
Coastal decisions often involve trade-offs. A structure may protect one stretch while changing sediment movement nearby. Tourism can support livelihoods but also place pressure on water and waste systems. Studying a coast requires looking along the shoreline and through time, not only at one protected property.

Erosion	removal and transport of material.
Deposition	settling of transported material.
Shoreline	the shifting boundary between land and water.



EXPLORATION 06 / VISUAL NOTEBOOK

Questions for a coastal study



Two illustrative shoreline positions; no time scale implied.

Evidence	What it helps reveal	Limit
Dated photographs	Visible change through time	Viewpoints may differ
Beach profiles	Shape and elevation	One survey misses seasonal variation
Wave and tide records	Water conditions	Local effects still vary
Land-use map	People and structures	Does not measure sediment movement

Combine evidence at comparable dates and locations. Do not infer a long-term trend from two poorly matched photographs.

**EXPLORATION 06 / CASE FILE**

Read, notice, question

A resort brochure calls a beach 'unchanging'. A local resident shows photographs of the same shoreline in different seasons. The width and position of sand vary noticeably.

The class rewrites the description to acknowledge a living coastal system. They also ask how visitors can use the beach without damaging dunes or habitats. An attractive destination can be presented honestly without pretending it is static.

LOOK AGAIN

Why must photographs be matched carefully? What does a seasonal change fail to establish about a longer-term trend?

Questions to carry forward

1. Is a coastline fixed?
2. Are all islands formed in the same way?
3. Why might one coastal defence affect another place?

**EXPLORATION 06 / TRY IT YOURSELF**

Fieldwork & connections

Compare two teacher-provided coastal images with known dates and locations. Identify stable reference points and visible changes. List possible explanations and the evidence needed to distinguish them. Do not approach surf, unstable cliffs or restricted coastal areas for this task.

01 Check dates, viewpoints and tide conditions.

02 Describe before explaining.

03 Consider several possible causes.

04 State the limits of the image comparison.

A worked starting point

Match photographs using stable buildings or headlands where possible, then check tide and season. A wider beach in one image may reflect different water levels or seasonal sediment movement. Write 'the visible beach is wider in this image' before claiming a long-term advance of the coastline. The first is observation; the second needs more evidence.



Ravi asks...

Whose work is hidden in this familiar object?

**EXPLORATION 06 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Is a coastline fixed?

No. It changes over different timescales through interacting land, sea and human processes.

2. Are all islands formed in the same way?

No. Origins include volcanic activity, continental fragments and reef-related formation, among others.

3. Why might one coastal defence affect another place?

Structures can alter wave energy or sediment movement along connected stretches of coast.

TAKE IT FURTHER

Design a coastal information panel that combines beauty, change and responsible access.



EXPLORATION 07 / READ DEEPER

A place can be seen at many scales

Scale changes the questions a map can answer. A world map reveals broad location and connections but cannot show every street. A neighbourhood map can show detailed routes while hiding the wider region. Neither is inherently better; each selects information for a purpose.

Map scale relates a distance on the map to distance on the ground. A large-scale map shows a smaller area in greater detail than a small-scale map. The terminology can feel counterintuitive until we compare the fractions: 1:10,000 is a larger fraction than 1:1,000,000.

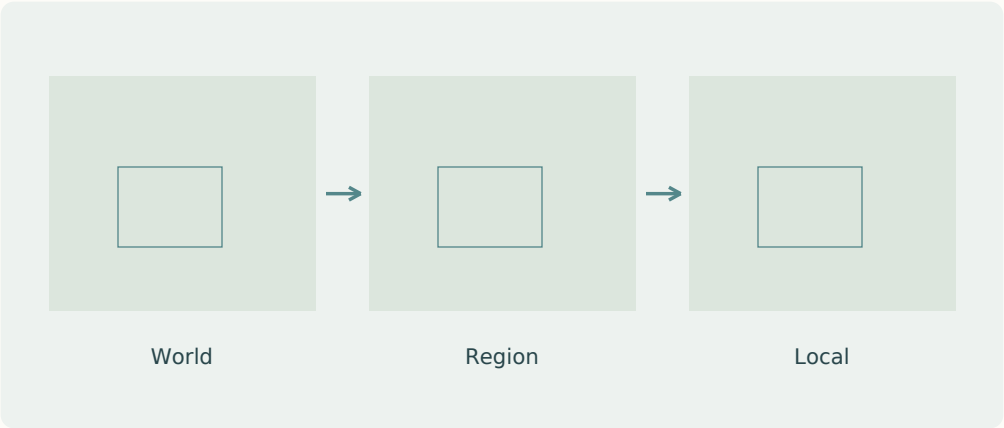
Maps also simplify. Symbols replace complex features, small bends disappear and labels are selected. This generalisation is necessary for readability, but it affects interpretation. A missing path on a small-scale map may have been omitted for clarity rather than not existing.

Scale	the relationship between map and ground distance.
Generalisation	simplifying features for a map's purpose and scale.
Inset	a smaller map placed within a larger map layout.



EXPLORATION 07 / VISUAL NOTEBOOK

The same place in three frames



View	Useful question	Likely omission
World locator	Which continent and ocean connections?	Local streets
Regional map	How does the place connect to nearby cities?	Individual buildings
Local map	Which route reaches the library?	Distant trade networks

Move between scales when a question involves both local experience and wider connections. An inset can supply location without overloading the detailed map.

**EXPLORATION 07 / CASE FILE**

Read, notice, question

A pupil searches a world atlas for a narrow lane and concludes that the lane has no official existence. The teacher shows a local map with the lane clearly marked.

The atlas was designed for a different question. Its omission is not evidence that the lane is imaginary. The class compares what each map includes and asks how scale, date and purpose shape the selection.

LOOK AGAIN

Why is absence from one map not proof of absence on the ground?
Which map would help plan a walk, and which would explain a global connection?

Questions to carry forward

1. Which is larger scale: 1:10,000 or 1:1,000,000?
2. Does more detail always improve a map?
3. Why state a map's date?

**EXPLORATION 07 / TRY IT YOURSELF**

Fieldwork & connections

Draw three nested maps of an invented place: world locator, region and neighbourhood. Use a consistent locator symbol. Give each map a different purpose and list two features deliberately omitted. Include a scale bar only when your distances are defined consistently.

- 01** State each map's question.
- 02** Choose detail appropriate to the area shown.
- 03** Explain necessary simplification.
- 04** Link the views with clear locator marks.

A worked starting point

A local sketch might show paths and crossings while a regional map shows connections to nearby towns. The world locator establishes the wider position. Use the same symbol for the focal place in all three. Enlarging the world map does not reveal the paths omitted during generalisation; you need a different data source.



EXPLORATION 07 / WORKED RESPONSES

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Which is larger scale: 1:10,000 or 1:1,000,000?

1:10,000 is larger scale and can show more detail over a smaller area.

2. Does more detail always improve a map?

No. Excess detail can hide the information needed for the map's purpose.

3. Why state a map's date?

Routes, land use, boundaries and names can change; the date helps readers judge relevance.

TAKE IT FURTHER

Explain why enlarging a low-detail map on a screen does not create new underlying information.



EXPLORATION 08 / READ DEEPER

Your place in a connected world

An everyday object can connect distant environments and livelihoods. Its materials may be extracted or grown in one place, processed in another, assembled elsewhere and used locally. These stages form a supply chain, but the real network often branches rather than following one neat line.

Tracing an object requires evidence. A brand name does not establish every material's origin, and a 'made in' label may refer to one production stage. When information is missing, mark it unknown instead of inventing a complete journey.

A geographical account considers benefits and costs together: work, skills, transport, resource use, waste and access. It also asks who controls decisions and who experiences effects. The aim is not to label every purchase simply good or bad, but to understand connections well enough to ask better questions and compare alternatives.

Supply chain	linked stages in producing and distributing something.
Network	a set of connected places or activities.
Life cycle	stages from material sourcing to use and end-of-use.



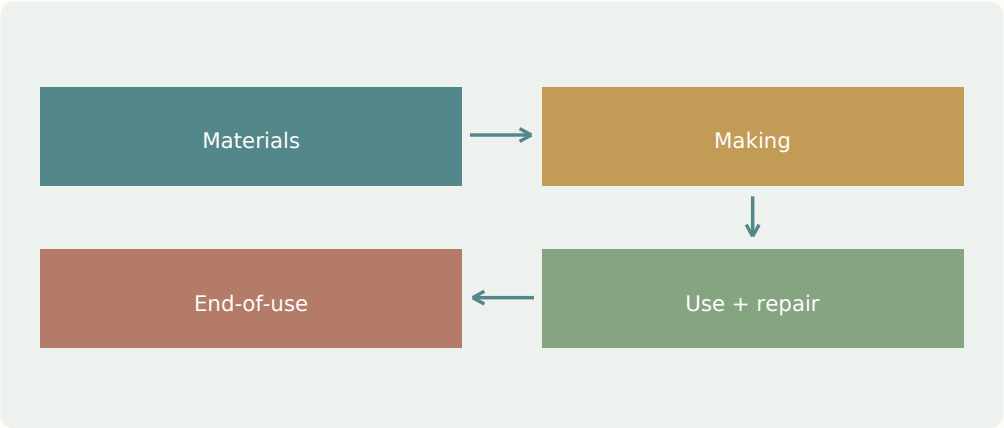
Raj asks...

What would we ask a person who has moved between a village and a town?



EXPLORATION 08 / VISUAL NOTEBOOK

A fictional schoolbag's life cycle



Stage	Geographical question
Materials	Where did fibres, dyes and fittings originate?
Manufacture	Where were components made and assembled?
Transport	Which routes and modes connected the stages?
Use and repair	How long can the bag remain useful?
End-of-use	Can it be reused, repaired or responsibly processed?

This is an inquiry framework, not a traced real product. Actual origins need labels, producer information and other reliable evidence.

**EXPLORATION 08 / CASE FILE**

Read, notice, question

A class maps a schoolbag's journey using only the country printed on its label. They later discover that the label describes assembly, while some materials came from other places.

They redraw the route as a network with known and unknown links. The incomplete map is more honest and more useful than a confident invented story. It also reveals where better product information would help consumers understand their choices.

LOOK AGAIN

Why can a network represent production better than one straight arrow? How should unknown stages appear on the map?

Questions to carry forward

1. Does a brand identify every place in a supply chain?
2. Why include repair in a geographical study?
3. Is an incomplete map necessarily a poor map?

**EXPLORATION 08 / TRY IT YOURSELF**

Fieldwork & connections

Choose a non-sensitive everyday object and examine available labels or packaging. Map only the stages supported by evidence. Add question marks for unknown origins and include repair or reuse as a possible branch. Finish with three questions you would ask a producer, rather than unsupported claims about its practices.

01 Separate observed labels from assumptions.

02 Identify materials and production stages.

03 Map known links and mark unknown ones.

04 Include use, repair and end-of-use.

A worked starting point

An honest product map may contain a verified assembly location, a known retail location and several unknown material origins. Use solid lines for documented links and dotted lines for questions, with a clear key. Include a local repair option without claiming it is always available. The unknowns define useful questions rather than defects to hide.

**EXPLORATION 08 / WORKED RESPONSES**

Think it through

Compare the reasoning after making your own attempt. Open tasks can have more than one well-supported response.

1. Does a brand identify every place in a supply chain?

No. Brands and production networks can span many places and change over time.

2. Why include repair in a geographical study?

Repair affects material demand, local skills, spending and waste, connecting everyday choices to wider systems.

3. Is an incomplete map necessarily a poor map?

No. A clearly labelled incomplete map can accurately represent available evidence and guide further inquiry.

TAKE IT FURTHER

Create a final atlas spread linking one local question to two wider geographical processes.



CONNECTED ENQUIRIES / 06

Belonging to a place, caring for a world

Geography / Everyday philosophy

The friends plan a display about their locality. Ravi wants photographs of familiar fields. Raj wants bus routes, shops and workshops. Elena wants stories about people who have moved away and stayed connected. At first they compete for space. Then they realise that belonging can include landscape, work, memory, language and relationships at the same time.

Look behind the scene

Local knowledge helps us notice detail. A wider perspective helps us compare, connect and reconsider. Neither replaces the other. A place changes through movement, decisions and everyday care; it is not a museum of one fixed identity.

A good account of a community includes more than its most visible voices. Ask permission before recording people, credit their knowledge and allow them to correct your summary. Curiosity becomes more useful when it is joined with respect.

Ravi, Raj & Elena join the enquiry

**Ravi**

My favourite view is part of the place, but it is not the whole place.

**Raj**

Could our display include people who disagree about what has changed?

**Elena**

I can ask what matters here before comparing it with a place I know.



Question, compare, decide

Perspective	What it can reveal
Landscape	Land, water and changing seasons
Work	Skills, services and movement
Memory	Experiences of change
Access	Who can take part and who cannot

A fictional teaching comparison. Use the stated information and keep its limits visible.

Your turn

1. Plan a display with four different kinds of evidence, not four versions of the same view.
2. Write a respectful request for permission to record someone's account.
3. Choose one connection between your locality and a distant place and explain the link.

A worked way to think about it

A balanced display might combine a route sketch, a consented account from a maker, a public observation of water use and a labelled historical photograph. Each source has limits. Credit people as contributors, not scenery. The final explanation should show how the evidence supports its claims.

PHILOSOPHY FOR AN ORDINARY DAY

Can we love a place and still question something happening there? Explain how criticism can sometimes be an act of care.

Rooted knowledge and a wider outlook can strengthen each other.



A village, a town and the routes between them

A fictional place study

The settlements and distances in this chapter are invented. Use them to practise geographical questions before examining a real place.

At half past seven, Meera waits beside the school gate with a cloth bag of library books. A delivery cycle goes towards the village. An empty vegetable crate travels back towards the town. Near the railway crossing, people pause while a train passes. The same road carries different journeys, made for different reasons.

Her class has been asked to draw the connections between a village and a nearby town. Arjun draws arrows only towards the town.

"People go there for things," he says. Nusrat adds arrows the other way: a teacher travels to the village, repairs are delivered from a workshop, and a bus returns with passengers. A place is connected through movements in both directions.

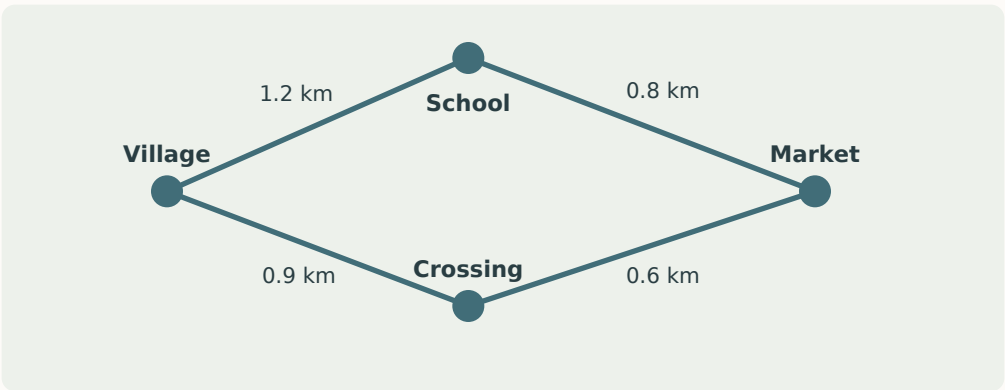
Ask what moves, and why

Goods, people, information and money move through networks. A town may provide a hospital, a market or a railway connection; a village may supply produce, skilled work or customers. Neither description explains every settlement. Many villages contain shops and workshops, and some town neighbourhoods include cultivated land.

The useful question is not whether one place is more modern. Ask which services are available, how people reach them, how reliable the connection is and whose journey is difficult. Start with the particular place rather than an assumption about rural or urban life.



A route is more than a line



Fictional route diagram. Distances are invented; positions are schematic, not a map to scale.

In this model, the route from the village to the market through the school is $1.2 + 0.8 = 2.0$ km. The alternative through the crossing is $0.9 + 0.6 = 1.5$ km. Its shorter distance does not guarantee a shorter journey: the crossing can add waiting time.

Question	Evidence to seek
How far?	Measured distance or a stated estimate
How long?	Travel time, including waiting
For whom?	Walking, cycling, mobility and luggage needs
How reliable?	A few comparable journeys on different days

A sketch can show connections without showing exact shapes. A map to scale allows different measurements. Choose the representation that answers your question, and state what it cannot tell the reader. A timetable, a route diagram and a locator map each reveal a different part of the journey.



The atlas of an ordinary journey

Make a place study

Choose a familiar journey, or keep using the invented diagram. Begin with a locator sketch showing the area within Bihar and India. Then draw a larger local diagram with no private house addresses. Give it a key. Mark a school, a market and one transport connection only if these are relevant to your question.

Write three short annotations: one explains a movement of people, one explains a movement of goods or services, and one identifies a connection that needs more evidence. A useful annotation explains a relationship: "The repair shop serves customers along the bus route" says more than "Here is a shop."

A worked response

"The crossing route is 0.5 km shorter in the model. We cannot say it is faster without evidence about speed and waiting. A learner who needs a step-free route may prefer another path even if it is longer. Our diagram shows possible connections; it does not show road condition or actual travel time."

Go further

Class 6: identify connections and explain the key. Class 7: compare distance and time. Class 8: explain how different users change the meaning of the best route.

Finish with a question that would improve the study. Keep it answerable: "How often does waiting change the preferred route?" is more useful than "Why are journeys difficult?" An honest limit makes a geographical account stronger.



Elena asks...

Which part of this local story connects to a distant place?



Following water through a neighbourhood

After rain, a shallow puddle remains beside a school wall while the neighbouring patch of ground dries. A pupil says the wall causes the puddle. Another says the soil is the cause. Their observations are a beginning, but the explanation needs the shape of the ground, the surface materials and the route water takes.

Some rainwater enters the ground by infiltration. Some moves over the surface as runoff. Some later returns to the air through evaporation. These processes can occur together. Water gathers in a hollow when it arrives more quickly than it leaves. An open-looking space can still be lower than the land around it.

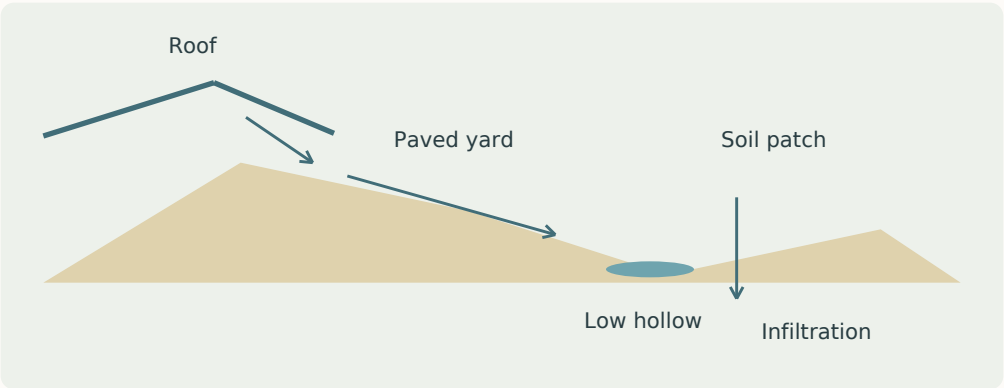
Connect the small place to a larger area

A catchment is an area that drains towards a common outlet. A school roof has a small catchment; a river has a much larger one. A local drain may connect to another channel and eventually to a river. What happens upstream can affect places downstream, but a sketch alone cannot establish the cause of a particular flood.

Studying water in Bihar can begin with a roof, a courtyard or a street. The questions also apply across India. Observe from a safe, dry place. Never enter drains, floodwater or riverbanks for this activity. A classroom model can answer a first question without a field visit.



Read the slope, then the evidence



A simplified section through a fictional neighbourhood. Arrows show possible water movement; vertical scale is exaggerated.

Surface	What the sketch suggests	What remains unknown
Roof	Rain is directed towards an edge	Gutter capacity and condition
Paved yard	Water can flow along the slope	How much water enters cracks
Soil patch	Some water may infiltrate	Soil condition and infiltration rate
Low hollow	Water can collect	Outlet level and drainage speed

The diagram represents a possible system, not a diagnosis. A blocked outlet, intense rainfall, a change in slope or several factors together might explain standing water. Compare observations made after similar rain rather than treating every wet day as an equal test.

Notice the missing measurement

A picture of a large puddle does not tell you its depth or how long it remained. Those are different quantities and need different observations.



Make a water story that can be checked

Three frames, one explanation

Draw a fictional surface before rain, during rain and after rain. Keep the wall, slope and outlet in the same positions. Use arrows consistently. Under each frame, write what can be observed and a separate sentence explaining what you infer. Label any assumed condition, such as an unobstructed outlet.

For a real place, a teacher can help you compare sketches made from the same safe viewpoint. Describe the date, surface and weather in general terms. You do not need names, private addresses or photographs of people. If the information is insufficient, say so.

A worked response

"The hollow remains wet after the rest of the yard appears dry. This suggests that water leaves the hollow more slowly than it leaves the surrounding area. We have not measured its depth, outlet level or soil properties. A possible next step is a teacher-supervised comparison of how long standing water remains after two similar showers."

Connect the books

Geography asks where water moves. Science asks how a model could test one process. Civics asks who maintains a shared service. Keep each question distinct before bringing the explanations together.

Your final caption should explain what the model includes and what it leaves out. A good geographical drawing makes a relationship visible without pretending that every real neighbourhood behaves in the same way.



A working glossary

Return to the chapter examples when a definition feels abstract.
Use each word in a sentence of your own.

Continent

A conventionally recognised large land region. This book uses the seven-continent convention.

Latitude

Angular position north or south of the Equator.

Longitude

Angular position east or west of the prime meridian.

Scale

The relationship between distance on a map and distance on the ground.

Projection

A method of representing Earth's curved surface on a flat map.



Climate

Long-term patterns and variability of weather in a region.

Basin

The land area drained by a river and its tributaries.

Plateau

An extensive area of relatively high, often fairly level land.

Migration

A change in where people live, temporarily or for longer periods.

Supply chain

Linked stages through which a product is made and distributed.

Infrastructure

Systems such as roads, water networks and electricity that support everyday life.

Interdependence

A relationship in which people, places or systems affect and rely on one another.



Your final project

An atlas of one local question

Choose a question about access, movement, water or land use. Combine a locator map with a larger local sketch. Give each map a purpose, key and scale statement. Add two kinds of evidence and explain what your maps cannot establish.

Plan

Identify the question, audience, materials and evidence before making the final piece.

Make

Keep a record of early attempts. Label fictional examples and distinguish observations from interpretations.

Review

Ask someone to identify a clear strength and one specific confusion. Revise the part that most improves understanding.

Reflect

Explain one decision, one change and one question that remains. A thoughtful limit strengthens your work.



Ravi asks...

What could make us revise our first picture of this place?

**MAKE A CONNECTION / PROJECT**

One object, many worlds

Choose a pencil, shirt, cup or another ordinary object. Build a two-page story connecting its materials, makers, movement, price and repair.

1. Draw its journey and distinguish known stages from guesses.
2. Explain one public decision that could affect the journey.
3. Write one advertisement for it, then mark which statements need evidence.
4. End with a fairness question and two reasoned answers.

A planning space

Our question:

Evidence or information we need:

A different view to consider:

What would change our conclusion?

**CONNECTED ENQUIRIES / WORKING WORDS**

Words to use, not just remember

Access - The practical ability to reach or use a place or service.

Bargaining power - The ability to influence an agreement.

Perspective - A position from which something is considered.

Stakeholder - A person or group affected by a decision.

Supply chain - Connected stages through which materials, work and goods move.

Supply shock - A disruption to what can be provided.

Put a word to work

Choose two terms. Use each in a new everyday example, then explain a case where the term would not fit. Ask a partner to improve your explanation.



Raj asks: "Can I explain this word through an example instead of repeating its definition?"

**FACILITATOR NOTES / CLASSES 6-8**

Keep the enquiry alive

Begin with the fictional situation. Give learners time to think, draw or write before asking for responses. A worked example is a model of reasoning; an open ethical question may support more than one well-defended answer.

Three ways into the same activity

Class 6. Identify the people, claim and relevant details. Give one reason and draw a simple connection.

Class 7. Compare two explanations or proposals. Use the table, name an assumption and explain a trade-off.

Class 8. Develop a counterargument, examine limits and test a revised conclusion against another case.

What a strong response shows

Look for a clear claim, relevant support, a fair account of another view and an honest limit. Arithmetic should show a method and unit. Interpretation should refer to the text or image. Revision should explain what changed and why.

A short discussion routine

Ask: What do you mean? What is your reason? Can you give an example? What would another person say? What could change your answer? Let a learner pass, contribute in writing or return later. Do not reward speed or confidence in place of reasoning.

Connect the six books

Follow an object in World; examine a decision in Civic; test fairness in Think; analyse its image in Art; write the account in English; check its claim in Science. Let the characters ask across subjects and let students ask beyond them.



Sources & illustration credits

The explanations, fictional cases and classroom tasks are Lokankur teaching material. The resources below support checking and further reading; they are not unattributed extracts. Web resources are listed as available for reference on 3 October 2026. A teacher should select age-appropriate sections.

National Geographic Society

Continent

Seven-continent convention and introductory geography.

NASA

Facts About Earth

Background on Earth and surface water.

Natural Earth

Terms of Use

Public-domain coastline data licence.

NCERT

Textbooks PDF

Teacher-selected Classes 6-8 geography and social science reading.

Study Australia, Australian Government

Australian Capital Territory (Canberra)

Reference for the national capital.

Te Ara, New Zealand Ministry for Culture and Heritage

Capital city

Reference for Wellington and its governmental role.



Government of Brazil

Brasilia - DF

Reference for Brazil capital.

National Centre for Polar and Ocean Research

Antarctica

Reference for Indian research stations.

Danish Prime Minister Office

Greenland

Reference for the political relationship within the Kingdom of Denmark.

DK

Eyewitness series

Further reading: illustrated introductions to places, history, art and science; publisher overview.

Oxford University Press

Oxford Geography Stages 4 & 5

Teaching-design reference: the publisher overview describes geographical knowledge, skills and fieldwork; select age-appropriate material.

Visual credits

The cover paintings and decorative literary vignettes were made for this edition using AI-assisted image generation, with a restrained watercolour treatment. They are imaginative artwork, not documentary photographs. Diagrams were independently drawn for the book. Their captions identify models and invented data.

Maps use Natural Earth 1:110m land data (public domain), newly typeset and labelled for this edition. Coastlines are generalised; regional maps omit political boundaries and many small islands.



Sources for the new chapters

NCERT

Learning Outcomes at the Elementary Stage. Further teaching reference for geography at the upper-primary stage; the local stories and route diagrams are original.

Official source: www.ncert.nic.in

New material and visual credits

The neighbourhood stories, market values, service records, route distances, experimental results and classroom diagrams in these additions are original teaching material. All invented cases and numerical datasets are identified where used. They are not reports about a real school or community.

The activities extend the existing book bibliography. References were checked for this continuation on 5 October 2026. Use teacher-selected sections suited to Classes 6-8.

**CONNECTED ENQUIRIES / SOURCES & CREDITS**

Further reading and making credits

These resources support further checking and teacher preparation. The new scenes, activities, examples, dialogue and poem are original Lokankur teaching material, not textbook extracts. Web references were checked on 10 October 2026.

NCERT - Textbooks and elementary learning references

<https://ncert.nic.in/textbook.php>

UNESCO - Media and Information Literacy: advertising and its creative process

<https://www.unesco.org/mil4teachers/en/module10/unit4>

UNESCO - Media and Information Literacy: advertising revenue and public information

<https://www.unesco.org/mil4teachers/en/module10/unit1>

UNESCO - Philosophy and human sciences: resources for reasoned enquiry

<https://www.unesco.org/en/management-social-transformations-most-programme/philosophy>

UNICEF - Convention on the Rights of the Child, especially participation and expression

<https://www.unicef.org/child-rights-convention/convention-text>

Visual credits

Ravi, Raj and Elena: AI-assisted original cartoon character illustrations created for this series. The Lokankur emblem retains its book, sprout and roots, with continent outlines in its circular backdrop. Existing illustration and reading credits remain with their original pages.