

Climate change and erosion - composites and components

Lesson 1:	Lesson 2:	Lesson 3:	Lesson 4:	Lesson 5:	Lesson 6:
<p>WALT: Describe the physical process of climate change and some of the predicted effects of climate change.</p> <p>Know that climate change is a long term change in the earth's climate.</p> <p>Know that temperatures are rising because of climate change.</p> <p>Know that the earth has warmed by an average of 1°c in the last century.</p> <p>Know that small changes in the climate have a huge effect on people and wildlife around the globe.</p> <p>Know that the changing climate will make our weather more extreme and unpredictable.</p> <p>Know that predicted effects include: increased rainfall, change in the seasons, shrink in sea ice, rise in sea levels.</p>	<p>WALT: Describe the main causes and effects of climate change and the attempts to manage it.</p> <p>Know that climate change is caused by mainly human processes.</p> <p>Know that the burning of fossil fuels such as coal and oil emits CO₂ which is an invisible greenhouse gas.</p> <p>Understand the greenhouse effect.</p> <p>Know that electric cars, low emission zones in cities (ULEZ in London) and low-energy light bulbs are ways of managing carbon emissions.</p> <p>Understand that reducing and reusing materials reduces carbon emissions.</p> <p>Know that reducing 'food miles' is a current strategy to reduce emissions.</p>	<p>WALT: Investigate geographical areas where climate change is having a noticeable effect.</p> <p>Know that climate change will affect areas differently.</p> <p>Know that Kenya may be unable to grow vital crops such as tea due to rainfall patterns being less predictable.</p> <p>Know that farming communities in developing countries will experience higher temperatures, increased rain, floods and droughts.</p> <p>Know that polar bears will have fewer places to hunt and rest as their habitat is melting.</p> <p>Know that in Indonesia, orangutans are under threat because of deforestation.</p>	<p>WALT: describe the physical features of a coast and explain the processes of erosion and deposition.</p> <p>Know that the surface of the earth is completely covered in rock.</p> <p>Know most of this rock is submerged but the higher areas are called land.</p> <p>Know that coasts are where the edge of the higher land meet the oceans.</p> <p>Know that there are geographical features of coasts such as headlands, beaches, cliffs, arches, stacks and bays.</p> <p>Know these features are caused erosion and deposition.</p> <p>Know that erosion is the wearing away of rocks through wind blowing over waves - the force of the waves erode the land.</p> <p>Know that waves erode soft areas of rock.</p> <p>Know that deposition is the dumping of rocks which forms beaches.</p>	<p>WALT: Describe the purposes, advantages and disadvantages of sea defences.</p> <p>Know that the coastline is managed by engineers who build artificial structures.</p> <p>Know these structures try to control natural processes.</p> <p>Know that sea walls are made of concrete and are placed at the bottoms of cliffs and tops of beaches.</p> <p>Know that they are effective at protecting the cliff and provide places for people to walk along.</p> <p>Know that rock armour is another method of sea defence where rocks large boulders are placed at the bottom of a cliff to protect it.</p> <p>Know that the rocks are expensive to transport and look different from a natural cliff.</p> <p>Know that groynes are wooden or rock structures built out into the sea.</p>	<p>WALT: Explain why erosion is more prevalent at the Holderness coastline than at any other area in Europe.</p> <p>Know the location of the Holderness coast in the UK.</p> <p>Know the Holderness coast is the fastest eroding coastline in Europe.</p> <p>Know the cliffs are made of soft clay and there are powerful waves along the coast.</p> <p>Know that it is mainly made up of chalk/glacial compounds that are easily eroded such as boulder clay.</p> <p>Know that the Holderness coastline is more susceptible to erosion due to its location facing the North Sea.</p>

North and South America - composites and components

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	
<p>WALT: Describe the geographical location of the continent of North America and identify important locational details.</p> <p>Know that North America is in the Northern Hemisphere. Know the oceans that border North America. Know the largest country and the largest population. Know the 4th parallel forms the border between USA and Canada.</p>	<p>WALT: Describe the diversity that is associated with the climate zones that are found in North America.</p> <p>Know that North America stretches close to the equator and North Pole. Know all climate zones are located within North America. Know that the variety provides diverse agricultural resources.</p>	<p>WALT: Describe the changes in the population of North America from the 1500s to the 1600s.</p> <p>Know the meaning of colonise and indigenous. Know that Europeans began to colonise the Americas and explain why - minerals/gold/fertile ground. Know that indigenous people occupied the Americas before Europeans arrived and explain the changes.</p>	<p>WALT: identify the most and least populous cities in North America and compare them.</p> <p>Know the most populous cities. Know why certain parts are sparsely populated - parts of Canada and Greenland. Know why Alaska is sparsely populated. Know Mexico City is the most populated and why.</p>	<p>WALT: locate the most significant rivers of North America and contrast their geographical locations.</p> <p>Know the reasons rivers are important in North America. Know that rivers are important to indigenous people. Know the Rio Grande is becoming more dangerous due to pollution.</p>	<p>WALT: Describe the physical features of rivers and explain why pollution in a river affects more than one population.</p> <p>Know where rivers start and the direction they flow. Know that a twist and turn in a river is called a meander. Know that land surrounding a river is generally fertile and what this means. Know that sewage and fertilisers are polluting rivers. Know that river pollution affects multiple communities and give an example e.g. Rio Grande.</p>	
Lesson 7	Lesson 8	Lesson 9	Lesson 10	Lesson 11	Lesson 12	Lesson 13
<p>WALT: Describe the nature of a topographic map and explain why it is useful</p> <p>Know that a topographic map shows physical features. Know that these features are usually natural but can include man-made. Know that the physical features will include mountains, rivers, lakes and levels of elevation. Know that topographic maps and political maps show different things. Know that a topographic map might be useful for military, predicting weather and hikers. s</p>	<p>WALT: Explain how mountains are formed by the movement of tectonic plates and know how the Rocky Mountain chain formed.</p> <p>Know that tectonic plates move. Know that tectonic plates include continental and oceanic crusts. Know that mountains can be formed when continental crusts push together and force land up. Know that mountains can be formed when oceanic crusts are subducted below continental crusts. Know the Rocky Mountain range is mountain range on the west coast of North America. Know that the Rocky Mountains were formed by subduction and that there is a large amount of seismic activity.</p>	<p>WALT: describe the geographical location of South America and South American countries.</p> <p>Know South America is made up of 12 countries. Know that Brazil is the largest country in South America. Know that Bolivia and Chile are both landlocked countries in South America. Know that South America is mostly located within the Southern and Western Hemisphere. Know that it is the 4th largest continent. Know that the equator runs directly through South America.</p>	<p>WALT: identify and explain some of the geographical diversity in South America</p> <p>Know that South America contains some of the wettest places on earth (its rainforests) and some of the driest (Atacama desert). Know the numbers of indigenous people are getting smaller in South America. Know that Spanish is the main language spoken in South America. Know that Portuguese is spoken in Brazil. Know that some European languages are spoken due to past colonisation. Know that the largest city is Sao Paolo and the smallest country is Suriname.</p>	<p>WALT: describe population density and compare population information in South America.</p> <p>Know that roughly 432 million people live in South America. Know that Brazil is the most populous country in South America. Know that the western and eastern coasts are more densely populated than the interior and far south. Know that there are high-population related problems in South America e.g. housing shortages. Know that the Amazon basin is sparsely populated.</p>	<p>WALT: explain what a tributary and river basin is and identify physical features of South America's 3 main river basins.</p> <p>Know that the Amazon is the largest river basin in the world. Know that Angel Falls is located in South America and is the highest in the world. Know that the 3 most important river basins in South America are the Amazon, Orinoco and Paraná.</p>	<p>WALT: Locate the geographical location of South America's major mountain ranges.</p> <p>Know that Andes are formed by subduction. Know the Andes Mountains stretch along the western side of South America. Know that many Andean peaks are higher than those in North America. Know that the Andes span 7 countries. Know the source of the Amazon river is in the Andes. Know there is a great deal of seismic activity in the Andes.</p>

Maps - composites and components

Lesson 1:	Lesson 2:	Lesson 3:	Lesson 4:	Lesson 5:	Lesson 6:
<p>WALT: use atlases to locate cities and countries and describe features.</p> <p>Know that maps contain titles, compass roses, map keys and scales.</p> <p>Know that these features are to help us locate places and understand the information presented.</p> <p>Understand that there are lines of longitude and latitude on a map, and these are to pinpoint specific locations.</p> <p>Know that most maps have a key, which show what each symbol/colour means.</p> <p>Understand that maps are shrinking a large area</p>	<p>WALT: identify Ordnance Survey map symbols.</p> <p>Know that maps use symbols instead of real-life pictures.</p> <p>Understand that maps use symbols because they are easy to spot and clear.</p> <p>Know that each square in an OS map represents 1km²</p> <p>Know the main Ordnance Survey map symbols.</p> <p>Understand that roads and paths have different coloured and styled lines.</p> <p>Understand that large features have (often) square shaped symbols that are one colour.</p>	<p>WALT: identify and use the 8 compass points.</p> <p>Know the four main compass points.</p> <p>Understand that to be more precise, we use more compass points based on the main 4.</p> <p>Know that the 8 compass points are found on most maps.</p> <p>Know how to use the 8 compass points to locate places on a map.</p> <p>Know the four main points are cardinal directions.</p> <p>Know the 4 extra points are ordinal directions.</p>	<p>WALT: use four and six figure grid references to locate places on a map.</p> <p>Know that maps have a grid system to help with accuracy.</p> <p>Know that horizontal lines are called eastings.</p> <p>Know that vertical lines are called northings.</p> <p>Understand that by combining the numbers of eastings and northings a four-digit grid reference is formed.</p> <p>Know how to locate a place using a four-digit grid reference.</p> <p>Know that each square in a grid system can be divided into a 10x10 grid.</p> <p>Know that this new division forms a six-digit grid reference.</p> <p>Understand that 6-digit references are more precise than 4-digit references.</p>	<p>WALT: plan a route using the eight compass points and 4/6 figure grid references.</p> <p>Know that maps have a grid system to help with accuracy.</p> <p>Understand that 6-digit references are more precise than 4 digit references.</p> <p>Know that routes can be planned by using grid references and compass directions.</p> <p>Know how to plan a short route using compass points and grid references.</p>	<p>EOU quiz</p>

Ocean currents and biomes - composites and components

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6
<p>WALT: identify what ocean currents are and how they are created.</p> <p>Know that an ocean current is a continuous movement of water from one place to another.</p> <p>Know that currents are created by wind, water temperature, salt content and the gravity of the moon.</p> <p>Know that the currents are called gyres.</p> <p>Know that gyres can flow for thousands of miles.</p> <p>Know that the Gulf stream is a major example of an ocean current.</p> <p>Know that gyres travel clockwise in the northern hemisphere.</p> <p>Know that gyres travel anti clockwise in the southern hemisphere.</p> <p>Know that ocean currents affect the weather patterns around the world.</p>	<p>WALT: understand what the Great Pacific Garbage Patch is and how it is formed.</p> <p>Know that gyres travel clockwise in the northern hemisphere.</p> <p>Know that gyres travel anti clockwise in the southern hemisphere.</p> <p>Know that the Great Pacific Garbage Patch is a big area of rubbish in the middle of the northern Pacific.</p> <p>Know that it is a patch of rubbish which is caught in water currents.</p> <p>Know it is formed because gyres are circular which traps the rubbish.</p> <p>Know some of the kinds of rubbish which are in the Garbage Patch</p>	<p>WALT: locate the Earth's biomes and climate zones.</p> <p>Know that a biome is a way to categorise the Earth's surface.</p> <p>Know that there are terrestrial biomes and aquatic biomes.</p> <p>Know the locations of the Earth's ten biomes.</p> <p>Know that there are 7 climate zones on the earth.</p> <p>Know the names of the 7 climate zones.</p> <p>Know that biomes and climate zones are linked</p>	<p>WALT: explain what biomes and climate zones are.</p> <p>Know that a biome is a way to categorise the Earth's surface.</p> <p>Know that biomes are based on climate patterns, soil types and the flora and fauna that inhabit the area.</p> <p>Know that all places in a climate zone have similar climates throughout the year.</p> <p>Know that biomes and climate zones are linked.</p> <p>Know that weather is the day-to-day conditions in a place.</p>	<p>WALT: locate and describe tropical rainforest biomes.</p> <p>Know that a tropical rainforest occurs in equatorial and sub-equatorial climate zones.</p> <p>Know that a tropical rainforest biome is hot, wet and has a high level of precipitation.</p> <p>Know the countries in which the top five largest rainforests are located: Brazil, DRC, Indonesia, Peru, Columbia.</p> <p>Know the four layers of the tropical rainforest.</p> <p>Understand that tropical rainforests are home to a diverse array of plants and animals.</p> <p>Know that deforestation is a huge issue that affects tropical rainforests and the world's climate.</p>	<p>WALT: explain the human processes that affect the tropical rainforest biomes.</p> <p>Understand that tropical rainforests are home to a diverse array of plants and animals.</p> <p>Understand that many of the foods we eat come from tropical rainforests such as bananas, coffee, chocolate and rubber.</p> <p>Understand that about 25% of the medicines we use come from plants in the rainforest.</p> <p>Understand that heavy farming and cultivation to produce these items of foods causes heavy damage and has a direct link to deforestation.</p> <p>Know that deforestation is a huge issue that affects tropical rainforests and the world's climate.</p>

Lesson 7	Lesson 8	Lesson 9	Lesson 10	Lesson 11	Lesson 12
<p>WALT: locate and describe desert biomes.</p> <p>Know that the desert biome is an ecosystem that forms due to the low level of rainfall it receives.</p> <p>Know that deserts cover about 20% of the earth.</p> <p>Understand that there are four major types of desert in this biome: hot and dry, semi-arid, coastal and cold.</p> <p>Know they all have plant and animal life that have adapted to the conditions there.</p> <p>Know that the desert biome is a huge tourist attraction.</p> <p>Understand that the Sahara is the largest desert.</p> <p>Know the climate of the desert biome.</p> <p>Know that the driest deserts only get 1cm of rainfall every 5-20 years.</p>	<p>WALT: locate and describe Savannah biomes</p> <p>Know that a savannah is a rolling grassland.</p> <p>Know that the largest part of the savannah is located in Africa.</p> <p>Understand that the Serengeti is one of the best known African savannah.</p> <p>Know that there are areas of savannah in North America and north and east of South America.</p> <p>Understand that the savannah is an area that has a very dry season and then a very wet season.</p> <p>Know that the savannah is warm all year round.</p>	<p>WALT: explain the human processes that affect the Savannah biomes.</p> <p>Know that tourism is a huge draw to the savannah.</p> <p>Understand that the savannah is a popular area with nomads (Maasai tribe of Kenya).</p> <p>Know that the nomads allow animals to graze as they move from place to place, allowing the vegetation to recover.</p> <p>Know that desertification can result from poorly managed farming.</p> <p>Know that areas of desert are created by the destruction of natural vegetation.</p> <p>Know that causes of desertification include: removal of vegetation cover by overgrazing and uncontrolled wood collection for fuel.</p>	<p>WALT: locate and describe marine biomes.</p> <p>Know that the marine biome is the largest biome in the world.</p> <p>Know that it covers about 70% of the earth's surface.</p> <p>Understand that marine regions are saline.</p> <p>Know that the marine biome includes the five main oceans (Pacific, Atlantic, Indian, Arctic and Southern) and many smaller gulfs and bays.</p> <p>Understand that the ocean is divided into three zones based on depth and light.</p> <p>Know the names of the three zones (euphotic, dysphotic, aphotic).</p> <p>Understand that the ocean biome is a diverse place and include: coral reefs, over 1 million species of plants and animals and an estimated 9 million undiscovered species.</p>	<p>WALT: explain the human processes that affect marine biomes.</p> <p>Know that habitats are destroyed in the ocean by drilling, mining or dredging for natural resources.</p> <p>Understand that climate change has increased carbon dioxide in the atmosphere which warms the ocean too.</p> <p>Know that oil spills occur coating beaches and a wide variety of animal and plant life.</p> <p>Understand that overfishing damages food chains in the oceans.</p> <p>Understand the damage of plastic pollution.</p> <p>Know that humans are making a variety of choices to stop damage to marine biomes and this includes: microbead ban, recycling, marine protected areas, banning single use plastics and sustainable fishing.</p>	<p>EOU quiz</p>