

Physical Geography

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WHAT IS PHYSICAL GEOGRAPHY?

- **Write 2 sentences about what YOU think physical geography is...**
- You have 3 minutes



GEOGRAPHY

- The study of the physical and human landscapes of Earth and the interaction between the two
- *Physical Geography* – the study of Earth's physical features
- *Human (Cultural) Geography* – the study of human activities and their relationship to the cultural and physical environments
- Geographers specialize on the interaction between humans and the Earth



PHYSICAL ENVIRONMENT

- Consists of physical features that occur naturally
- 4 Major Components
 - Water
 - Natural Vegetation
 - Landforms and rocks
 - Weather and Climate



EXPLORING GEOGRAPHY

- The world is usually described in *spatial terms*
- *Spatial relations*- refer to the links that places and people have to one another because of their location
- You could use the terms-
 - *Absolute location*
 - *Relative location*



I. ABSOLUTE LOCATION

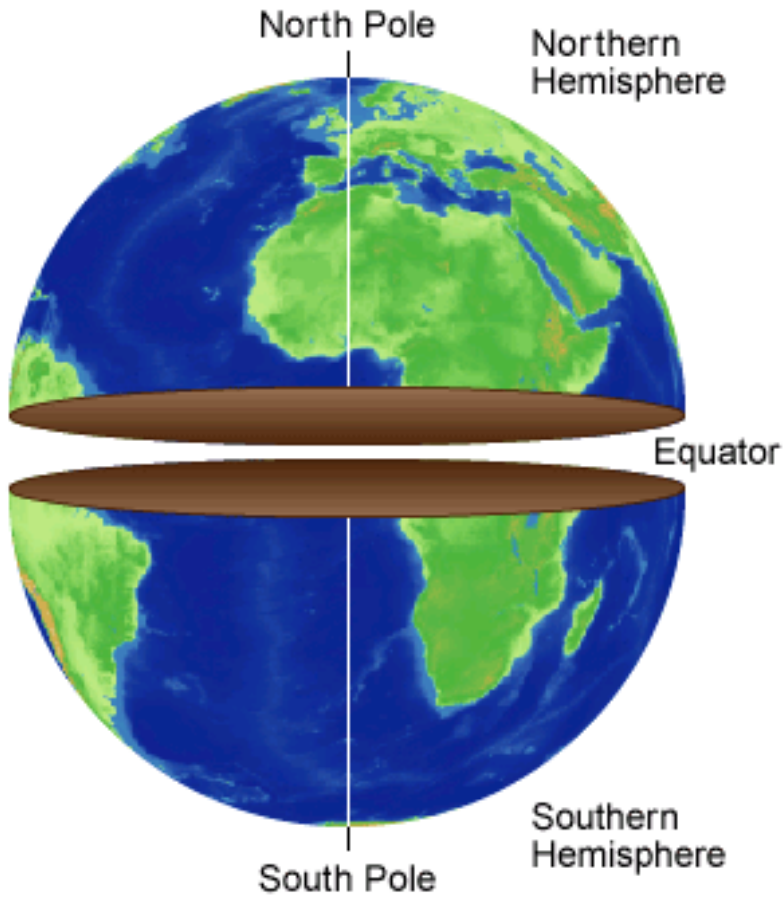
- *Absolute location* - The exact spot at which the place is found on the globe
- To determine absolute location, geographers use imaginary lines around the earth
- **What lines are they?**



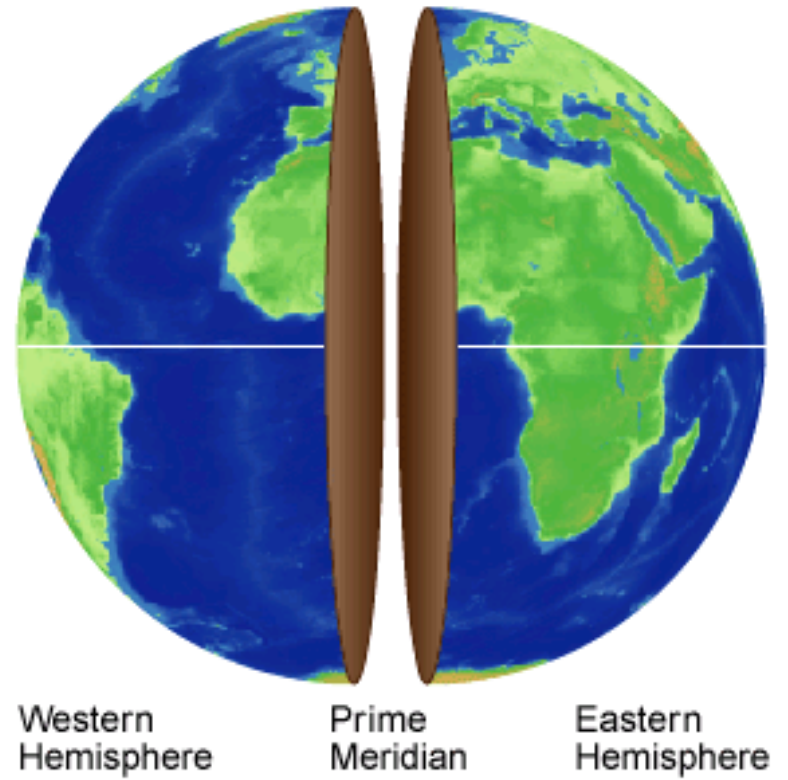
IMAGINARY LINES

- *Equator* – divides the earth into Northern and Southern hemispheres
- *Prime Meridian* – divides the earth into Eastern and Western hemispheres (Greenwich, England)
- *Latitude* – degrees north or south of the equator (0-90°)
- *Longitude* – degrees east or west of the Prime Meridian (0-180°)





EQUATOR



PRIME MERIDIAN



GRID SYSTEM

- *Grid System* - Used to identify absolute location of any place on Earth
- Measured in degrees and direction

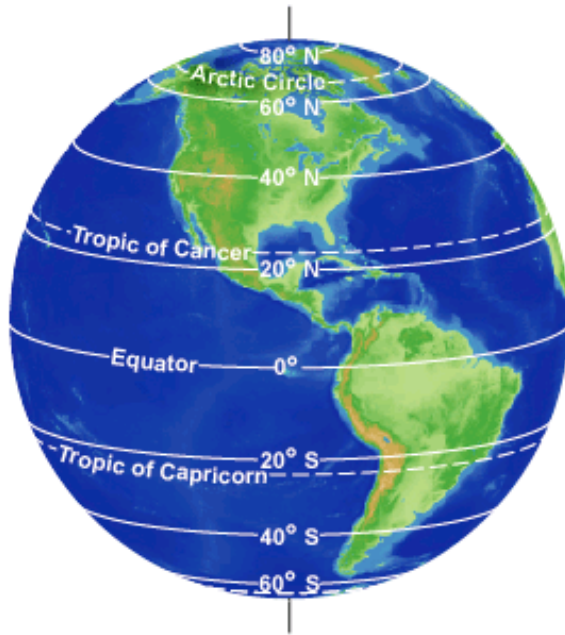
- **What lines are measured with degrees?**
- **How is direction measured?**



GRID SYSTEM

Lines of Latitude

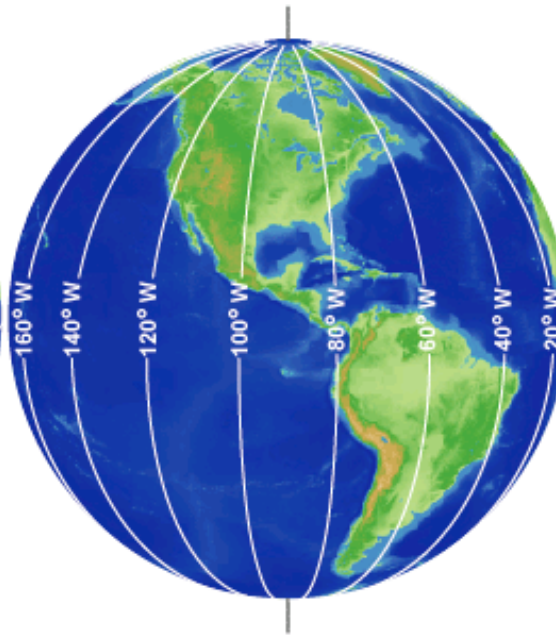
North Pole



South Pole

Lines of Longitude

North Pole



South Pole

The Global Grid

North Pole



South Pole



WORLD MAP ACTIVITY

- Each person needs a blank world map
- **Locate the following** –
 - North Pole
 - South Pole
 - Equator
 - Eastern Hemisphere
 - Western Hemisphere
 - Prime Meridian
 - Northern Hemisphere
 - Southern Hemisphere
 - Tropic of Cancer
 - Tropic of Capricorn
 - Draw your Compass Rose and identify degrees



II. RELATIVE LOCATION

- *Relative location* - location of a place in *relation* to other places
- This is usually how we determine location
- Socorro High School is next to Churches
Chicken or Vista
- **Identify 5 different places using relative location**



III. PLACES

- *Place* – a particular space with physical and human meaning
- Every place has its own unique characteristics, determined by the surrounding environment and the people who live there
- **What is the most important place to you in the world and why?**



IV. REGIONS

- *Region* – a group of places united by similar characteristics
 - May be physical such as soil type, vegetation and climate
 - Or by human factors such as language, religion, forms of government, etc
 - **Name 5 regions that you already know**



THREE TYPES OF REGIONS

- *Formal* (uniform) – defined by a common characteristics such as a product produced there or climate experienced there
- The Corn Belt – Iowa-Illinois area in the US
 - **Common Characteristic?**
- Islamic World – Middle East
 - **Common Characteristic?**



PERCEPTUAL REGION ACTIVITY

WEST SIDE	LOWER VALLEY
EAST SIDE	NORTHEAST

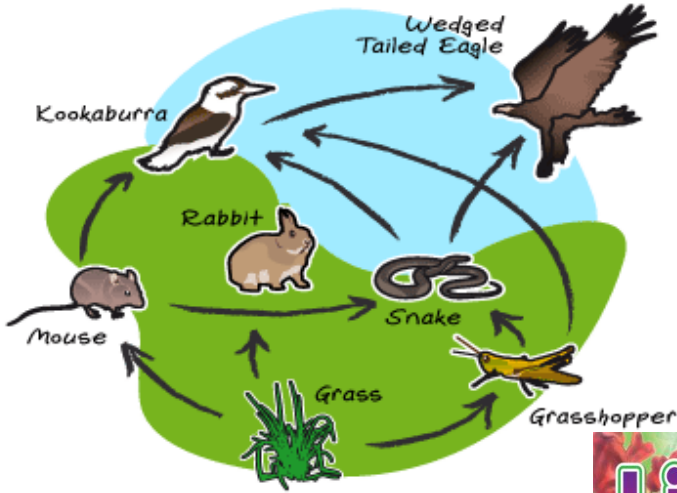
Write 10 characteristics about each area



ECOSYSTEMS

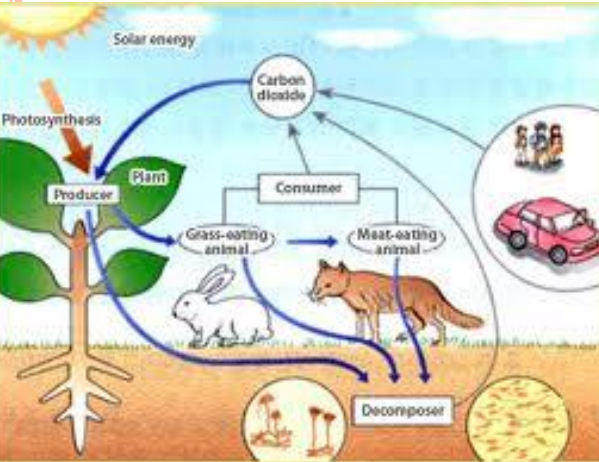
- *Ecosystems*- Community of plants and animals that depend upon one another, and their surroundings for survival
- Geography look at how physical features interact with the ecosystems





ECOSYSTEMS!

Name 5 different processes within Ecosystems



Life in the RAINFOREST

The world's rainforests are perfectly-balanced ecosystems, home to half of all the world's species. They provide everything that the plants, animals and indigenous people living in them need to thrive. Many species rely on each other for survival, so if some plants are destroyed, or an animal becomes extinct, it can have a devastating effect on the rest of the forest. Take a trek deep into this African rainforest for a closer look...

Watering the WORLD

Rainforest trees act like giant water pumps. The tiny threads of fungi on their roots draw up water – and the tree's leaves release it back into the air as vapour, forming clouds. This falls as rain or snow in places as far away as Ireland. Thanks for the shower!

Busy BEES

Bees are one of the most important insects in the rainforest. As they buzz about collecting nectar, they pass pollen (a fine powder which allows plants to reproduce) from flower to flower, enabling more to grow. Bees also make honey – a tasty treat for people living in the rainforest. Yum!

TRUNKS in the trees

Elephants only digest about 40% of what they eat, so many plant and tree seeds pass straight through, emerging in the elephant's dung. As the dung turns to compost, these seeds take root and grow. Amazingly, some species actually need to pass through an elephant's gut to grow!

Gardeners of the FOREST

Gorillas spend their days eating leaves, fruits, stalks and shoots. By dispersing seeds, gorillas play a key role in maintaining the African rainforests and, hence, the world's climate. Also, as they pull at trees to feed, or break off branches to build nests, they make sunlight gaps in the forest canopy, helping smaller plants to grow. Clever!

Tropical TREASURES

For some tribes, the rainforest provides everything – from shelter and medicine, to food and clothes. They can't survive without it. Kids living in the forest learn how to build houses, furniture, baskets, arrows and even jewellery from the leaves and branches.

Hidden FRUITS

There are lots of amazing foods in the rainforest – if you know where to look! Along with hunting and fishing, the indigenous forest people depend on the trees for fruit and seeds. So, if the trees are cut down, their food disappears – along with the animals that also call the forest their home.

Tiny TROOPERS

Ants, spiders, worms and beetles may be some of the smaller creatures in the rainforest, but they have a very BIG job – keeping the soil healthy. By eating the forest's 'dead' plants and animals, they release nutrients back into the earth, helping plants and trees grow big and strong. Top work!

Forest FRIENDS

Rainforest birds, like this African grey parrot, feed on fruit, nuts and small insects. As they munch, some seeds fall to the ground and – in time – grow into new plants and trees. But without the trees, these beautiful birds have no food or protection – and they're left fighting for survival.

Find out how YOU can help protect the world's amazing rainforests, and the people and animals that live in them by visiting www.ngkids.co.uk or www.youcan.org

NG Kids 2009

LANDFORMS

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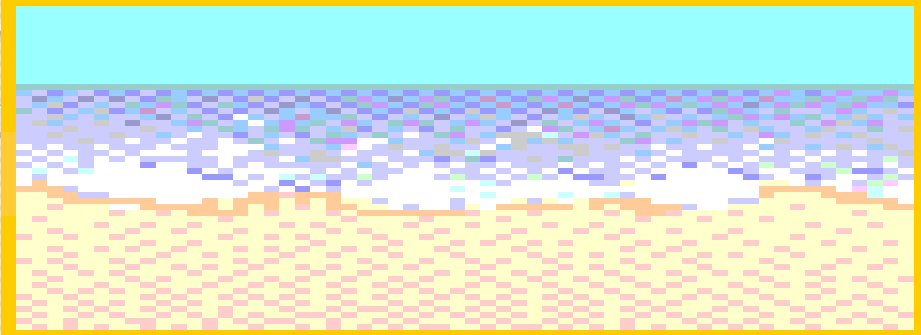




Landforms

Features of the Earth's surface and how they are formed and changed

Beaches



Beach formed by water erosion - ocean



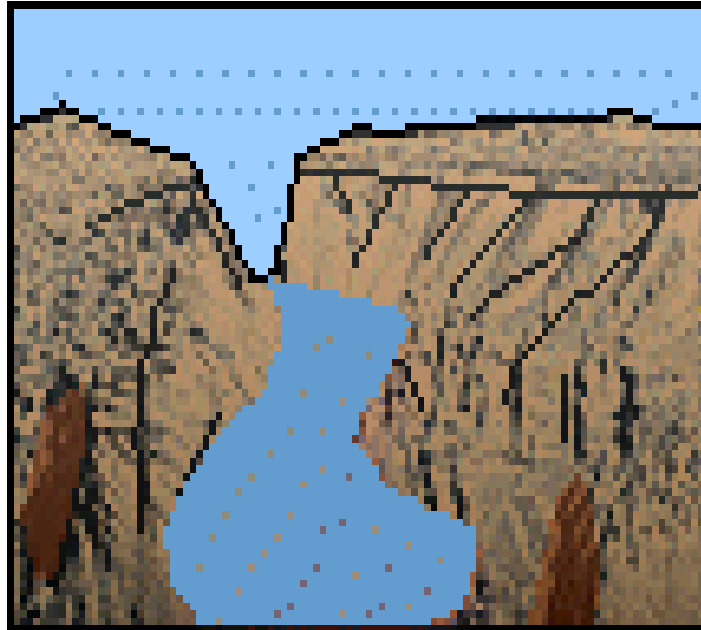
Canyons



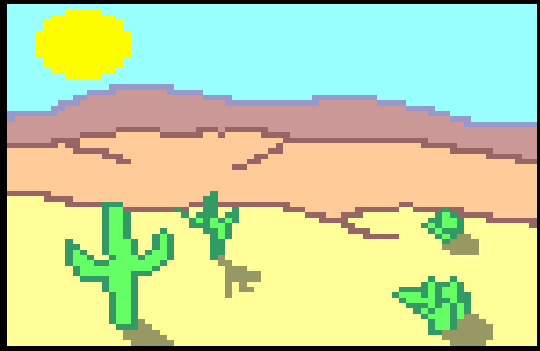
Canyons formed by water erosion – river
OR by wind erosion



Cliffs



Deserts



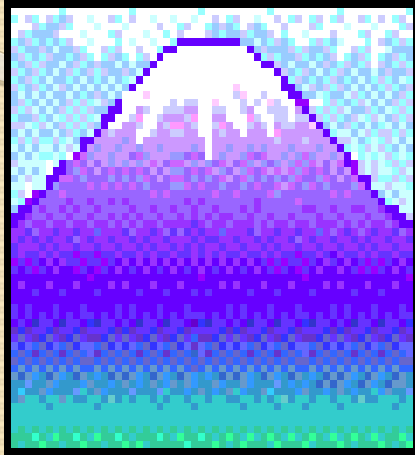
Deserts formed by wind deposition



Mesas and Plateaus

Mesas and plateaus formed by wind erosion





Mountains formed by earthquakes and pushing up of crust





New land formed by deposition of rivers/floodwaters



Forces that shape the Earth's surface

- Volcanoes and Earthquakes
- Rivers and Rain
- Floods and Mud slides
- Wind and water erosion
- Weathering
- Ice and Glaciers
- Deposition

Mass wasting

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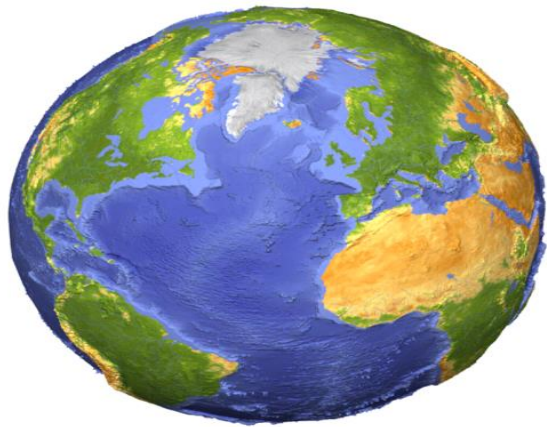
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DEFINITION

- ⦿ Disintegrated and fragmented rock materials due to mechanism of weathering processes are called rockwastes. Generally, movement of enblock down the hillslope is called massmovement of rockwaste of simple mass movement or mass wastes.

EXAMPLES OF MASS WASTING



MASS MOVEMENT IS AFFECTED BY MANY FACTORES SUCH AS

- 1) The amount of moisture
- 2) Base soil
- 3) The accurance of thin bed
- 4) The absence of vesitative cover

Types of mass wasting

Slow flowage	Rapid flowage	Sliding	Subsidence
1) Soil creep	1) Earth flow	1) slump	
2) Rock creep	2) Mud flow	2) Rockslide	
3) Talus creep	3) Debris avalanche	3) Rock fall	
4) Rock glacier		4) Debris fall	

SLOW FLOWAGE

- Slow flowage of rock waste and weathered debris . Partial saturation of rock detris is required for such masswasting and hence moderate quanlity of water is needed as lubricating and stimulating agent .
- There are slow flowage 4 types are following
 - 1) Soil creep
 - 2) Rock creep
 - 3) Talus creep
 - 4) Rock glacier

RAPID FLOWAGE

- ⊙ Rapid flowage of weathered debris sufficient quantity of water is needed as lubricant.
- ⊙ This type of flowage such as
 - ⊙ 1) Earth flow
 - ⊙ 2) Mud flow
 - ⊙ 3) Debris avalanche

LAND SLIDING

- Land sliding phenomenon which are related to rapid sliding large masses of earth mantle or rock material. These are the movement in descriptive in nature.
- They are types of following
 - 1) Slump
 - 2) Rock slide
 - 3) Rock fall
 - 4) Debris fall

THANK YOU