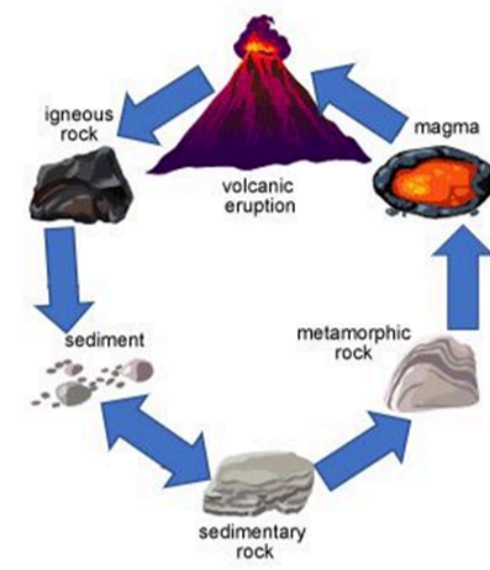


Form	BA - 2, Science, Grade 6, SY 24-25
Identifier	F-BO07WQ_C94816

Item	BA-2_Science_Grade 6_01
Identifier	I-SCI-F-S000026_C48727
Standards	SCI.6-8.MS-ESS2-1

Students were asked to develop a diagram of the Rock Cycle and produced the following model:

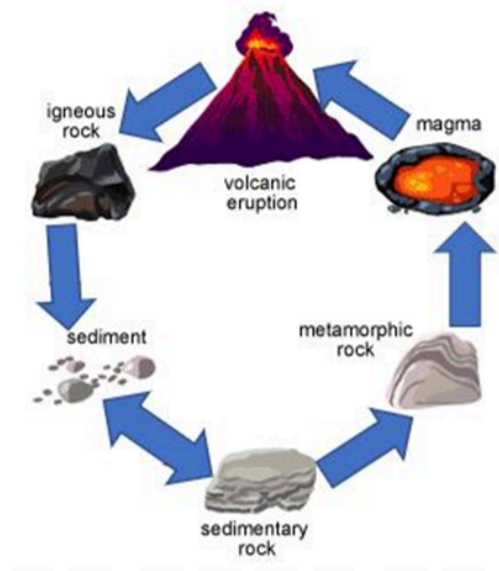


The model shown of the Rock Cycle is somewhat limited and could be modified to show a more accurate representation of the Rock Cycle Process. For example, igneous rock can become sediment, but it can also be transformed into metamorphic rock. What processes would have to occur for igneous rocks to be transformed into metamorphic. Choose the **TWO BEST** answers.

- A The igneous rock could be melted.
- B The igneous rock could undergo great pressure and heating.
- C The igneous rock could undergo weathering and erosion.
- D The igneous rock could be transformed into sediment, then sedimentary rock and then to metamorphic rock through heat and pressure.
- E The igneous rock could be melted by acid rain.

Item	BA-2_Science_Grade 6_02
Identifier	I-SCI-F-S000026_C91081
Standards	SCI.6-8.MS-ESS2-1

Students were asked to develop a diagram of the Rock Cycle and produced the following model:



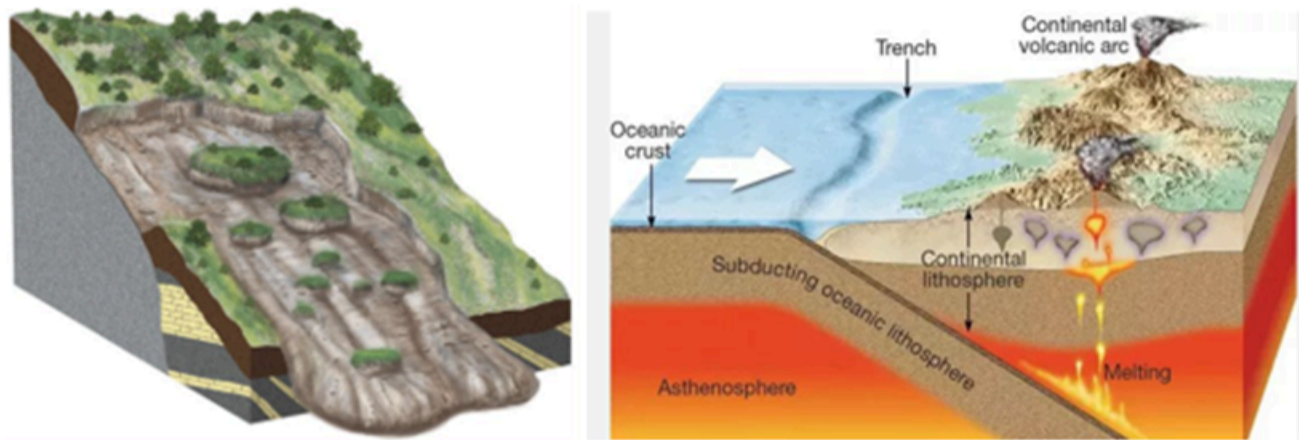
One of the students who help to draw the Rock Cycle Model has two rock samples. The first sample is limestone a type of sedimentary rock, and the second sample is marble, a type of metamorphic rock. One of the student's partners tells him that marble is formed from limestone.

What geologic process causes the sedimentary rock limestone to become the metamorphic rock marble?

- A crystallization
- B deformation
- C weathering
- D sedimentation

Item	BA-2_Science_Grade 6_03
Identifier	I-SCI-F-S000026_C60250
Standards	SCI.6-8.MS-ESS2-2

A teacher shows her class these images of a cross section of converging plate boundaries and a landslide.

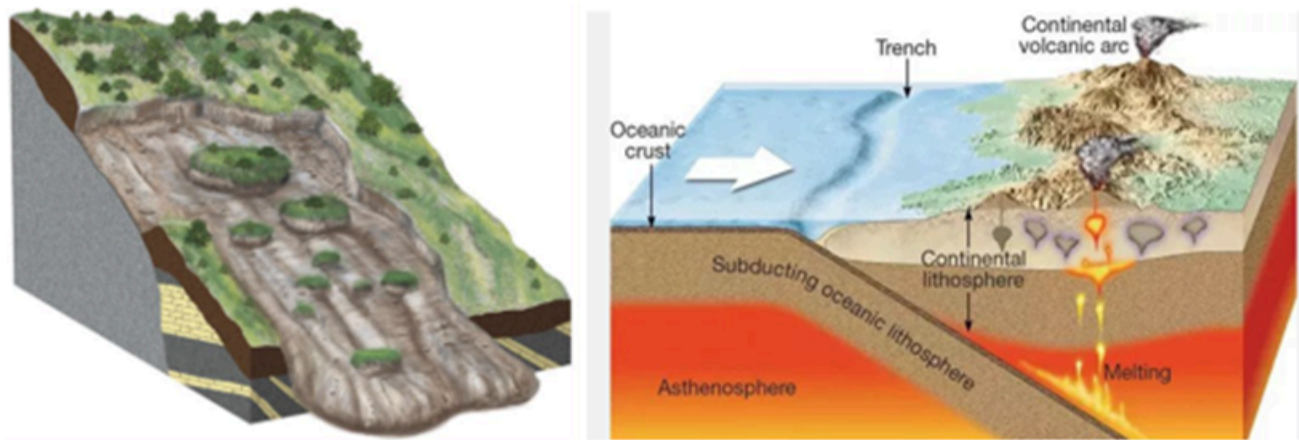


How do landslides and tectonic plate movements differ in their impact on Earth's surface?

- A Landslides have a much smaller spacial impact than tectonic plate movements.
- B Significant tectonic movements occur more frequently than landslides.
- C Landslides have a much larger spacial impact than tectonic movements.
- D Tectonic movements only occur under the ocean.

Item	BA-2_Science_Grade 6_04
Identifier	I-SCI-F-S000026_C93731
Standards	SCI.6-8.MS-ESS2-2

A teacher shows her class these images of a cross section of converging plate boundaries and a landslide.



What is the primary cause for the formation of the continental volcanic arc or mountains in the diagram above?

- A Offshore winds coming in from the ocean.
- B Water being subducted into the lithosphere and boiling.
- C Plate tectonics activity along the convergent boundary.
- D Rock layers pushing upward against each other.

Item	BA-2_Science_Grade 6_05
Identifier	I-SCI-F-S000026_C72306
Standards	SCI.6-8.MS-ESS3-1

Distribution of Iron Ore Deposits Around the World

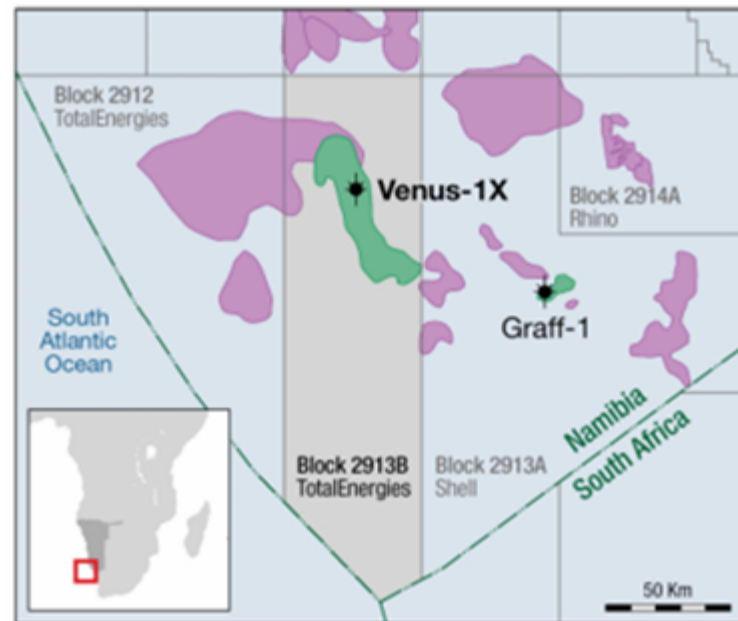
Country	Iron Ore Reserves (in million metric tons)
Australia	52,000
Brazil	29,000
Russia	25,000
China	23,000
India	8,500
Canada	6,000

What is one reason for the uneven distribution of iron ore deposits around the world?

- A Different countries use iron ore for different purposes.
- B Iron ore is only found near the ocean.
- C Past geoscience processes, such as volcanic activity and tectonic movements, cause iron ore to form in certain areas.
- D Iron ore deposits move from one country to another over time.

Item	BA-2_Science_Grade 6_06
Identifier	I-SCI-F-S000026_C75237
Standards	SCI.6-8.MS-ESS3-1

Petroleum geologists (a petroleum geologist is a professional geologist who specializes in the study of the origin, distribution, and extraction of petroleum and natural gas) recently discovered a very large petroleum reservoir off the coast of Namibia (a country that lies on the southwest coast of Africa).



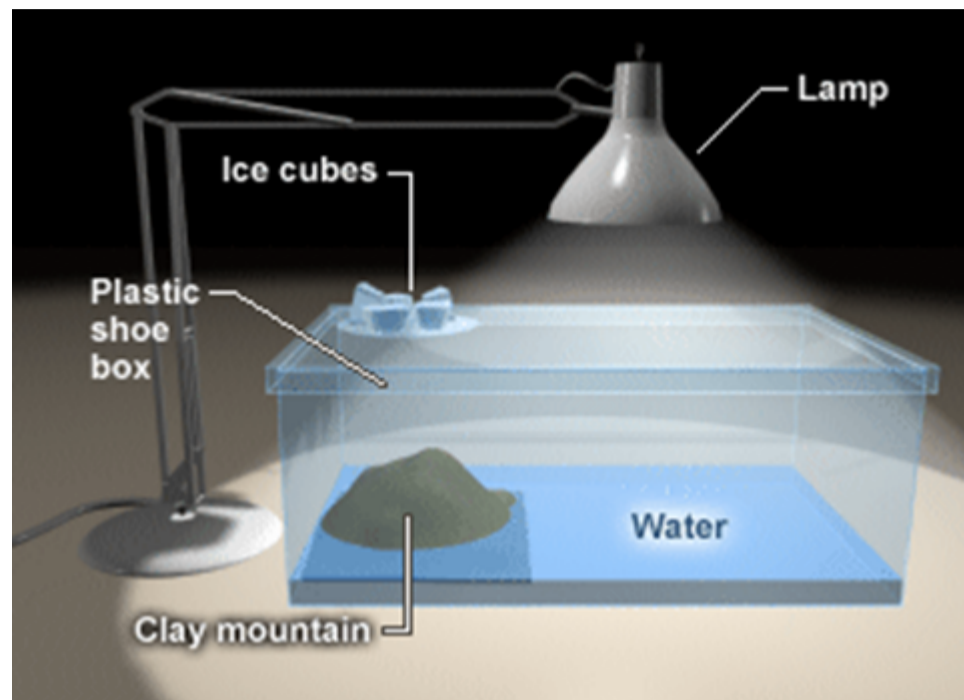
TotalEnergies significant discovery of light oil with associated gas on the Venus prospect, in the Orange Basin, offshore southern Namibia.

How do geoscience processes relate to how this petroleum formed?

- A The petroleum formed after precipitation and ocean water caused plants to decompose and decay in a short period of time.
- B The petroleum formed due to the significant number of earthquakes that occur along the coast of Namibia.
- C The petroleum formed due to farming and other agricultural processes that occur in Namibia.
- D The petroleum formed after ancient ocean organism remains were exposed to intense pressure and extremely high temperatures as the Atlantic Ocean floor sank.

Item	BA-2_Science_Grade 6_07
Identifier	I-SCI-F-S000026_C98395
Standards	SCI.6-8.MS-ESS2-4

Demetrius is building a model to show the processes that occur during the water cycle. His model is shown in the image below:

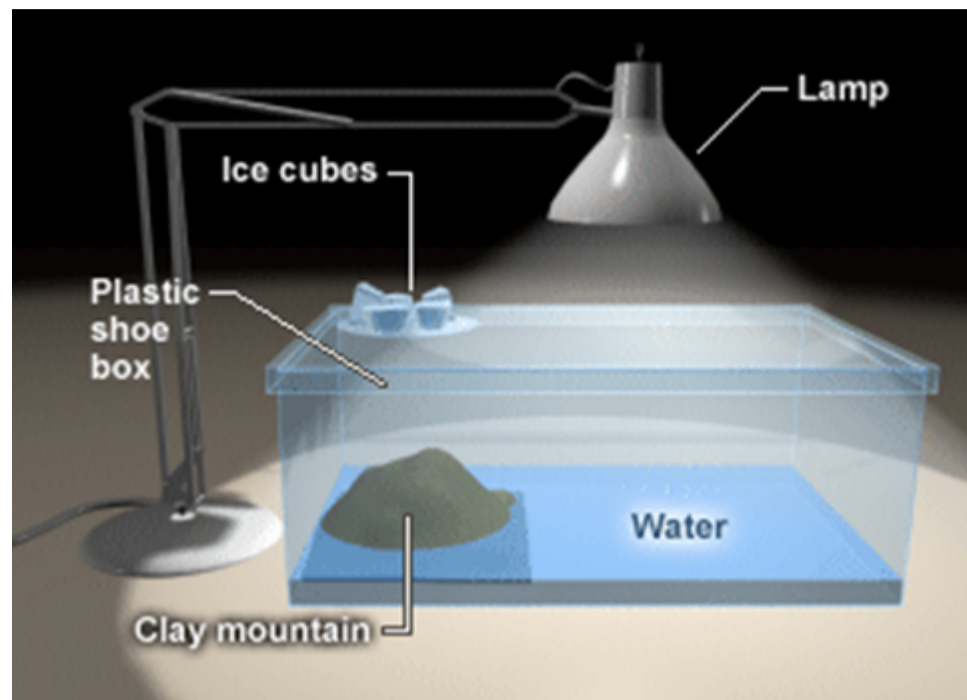


Demetrius' teacher told him that his model as designed does not show any place for transpiration to occur. What could Demetrius add to his model to show the process of transpiration?

- A Add a fish to the water.
- B Cut a hole in the side of the plastic shoe box.
- C Place a hose from the top of the box down to the clay mountain
- D Add a plant on the clay mountain.

Item	BA-2_Science_Grade 6_08
Identifier	I-SCI-F-S000026_C27229
Standards	SCI.6-8.MS-ESS2-4

Demetrius is building a model to show the processes that occur during the water cycle. His model is shown in the image below:



Demetrius wants to use his model to describe the processes that occur in the water that produce phase changes. Which of the following phase changes should he include:

- A There are no phase changes in the water cycle.
- B Gas --> Liquid and Liquid --> Gas
- C Solid --> Liquid --> Gas --> Plasma
- D Solid --> Gas

Item	BA-2_Science_Grade 6_09
Identifier	I-SCI-F-S000026_C98081
Standards	SCI.6-8.MS-ESS2-5

Aaron did some research on weather patterns and made the following data table.

Air Mass Type	Temperature (°C)	Humidity (%)	Weather Condition
Polar	10	60	Rainy
Tropical	25	80	Sunny
Maritime	15	90	Foggy
Continental	20	40	Clear

Which air mass type is characterized by high humidity and foggy weather?

- A Polar
- B Tropical
- C Maritime
- D Continental

Item	BA-2_Science_Grade 6_10
Identifier	I-SCI-F-S000026_C62087
Standards	SCI.6-8.MS-ESS2-5

Aaron did some research on weather patterns and made the following data table.

Air Mass Type	Temperature (°C)	Humidity (%)	Weather Condition
Polar	10	60	Rainy
Tropical	25	80	Sunny
Maritime	15	90	Foggy
Continental	20	40	Clear

Which air mass type is associated with clear weather and low humidity?

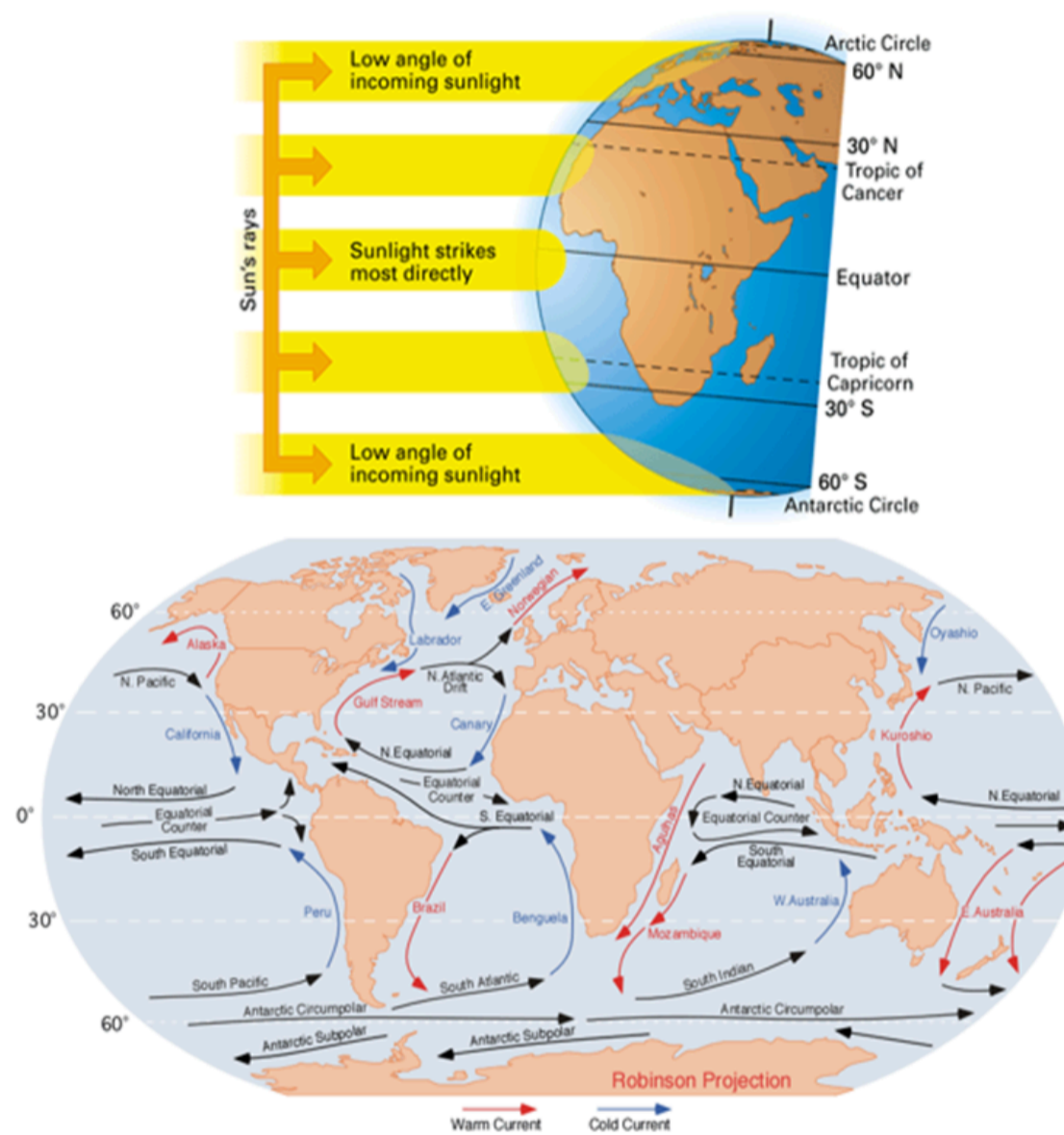
- A Polar
- B Tropical
- C Maritime
- D Continental

Item	BA-2_Science_Grade 6_11
Identifier	I-SCI-F-S000026_C69261
Standards	SCI.6-8.MS-ESS2-6

The way the Earth heats up unevenly and spins affects how air and water move around the planet, which in turn changes the climate in different regions. This happens because of several factors, like how sunlight heats different parts of the Earth, the Earth's rotation, and how the land is spread out.

A key part of this is that different areas of the Earth heat up differently. Near the equator, where the Sun's rays hit directly, the air warms up and rises, creating low-pressure areas. In contrast, near the poles, where the rays are more spread out, the air is cooler and sinks, creating high-pressure areas. This movement of warm and cool air drives global wind patterns.

The oceans are also affected by these factors. The way heat moves through the ocean is linked to the uneven heating of the Earth's surface. The Earth's spinning and the location of continents affect how ocean currents form and move. These currents are important for spreading heat around the world.



How does the Earth's rotation influence global wind patterns?

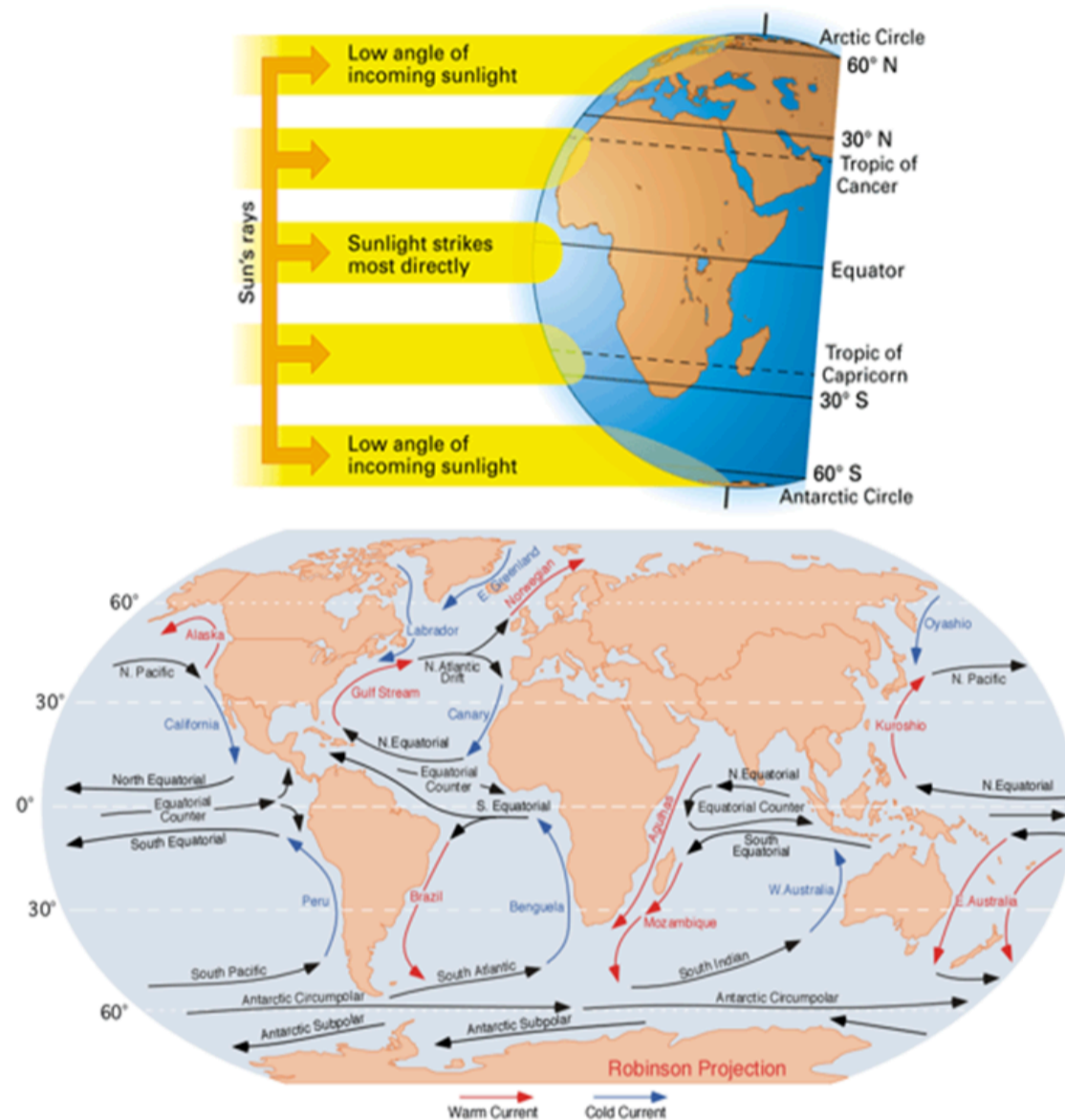
- A It affects the direction and movement of wind currents.
- B It causes the Sun's rays to heat all areas equally.
- C It makes the high-pressure areas move towards the equator.
- D It changes the location of land masses.

Item	BA-2_Science_Grade 6_12
Identifier	I-SCI-F-S000026_C10958
Standards	SCI.6-8.MS-ESS2-6

The way the Earth heats up unevenly and spins affects how air and water move around the planet, which in turn changes the climate in different regions. This happens because of several factors, like how sunlight heats different parts of the Earth, the Earth's rotation, and how the land is spread out.

A key part of this is that different areas of the Earth heat up differently. Near the equator, where the Sun's rays hit directly, the air warms up and rises, creating low-pressure areas. In contrast, near the poles, where the rays are more spread out, the air is cooler and sinks, creating high-pressure areas. This movement of warm and cool air drives global wind patterns.

The oceans are also affected by these factors. The way heat moves through the ocean is linked to the uneven heating of the Earth's surface. The Earth's spinning and the location of continents affect how ocean currents form and move. These currents are important for spreading heat around the world.



What is the relationship between ocean currents and the uneven heating of the Earth's surface?

- A Ocean currents are unaffected by the Earth's uneven heating.
- B The uneven heating of the Earth's surface influences how ocean currents form and move.
- C The ocean currents help to create uneven heating of the Earth's surface.
- D Some ocean currents are so large they change the Earth's rotation.