An ESP Course to the Students of Marine Sciences

Unit 2: Weather and Currents

Zainab Jaafar Auda
MA in Applied Linguistics
Faculty of Marine Sciences, University of Basrah

Key Vocabulary

wave

Precipitation

condense

tide

equator

swirling

storm

droplet

currents

climate

disaster

pole

temperature

circulation

stream

2.1. Ocean Weather and Climate

The seas and oceans are closely connected to the Earth's weather. Rain and other precipitation come from water that has evaporated from the oceans. In turn, the climate affects the oceans, warmer temperatures make sea levels rise and also increase the number of ocean storms.

2.2. The Water Cycle

Rivers constantly flow into the ocean. So, where does all the water go? The world's water is constantly moving around a huge water cycle. The warmth of the sun make some of the oceans' water evaporate into a gas_ water vapor.

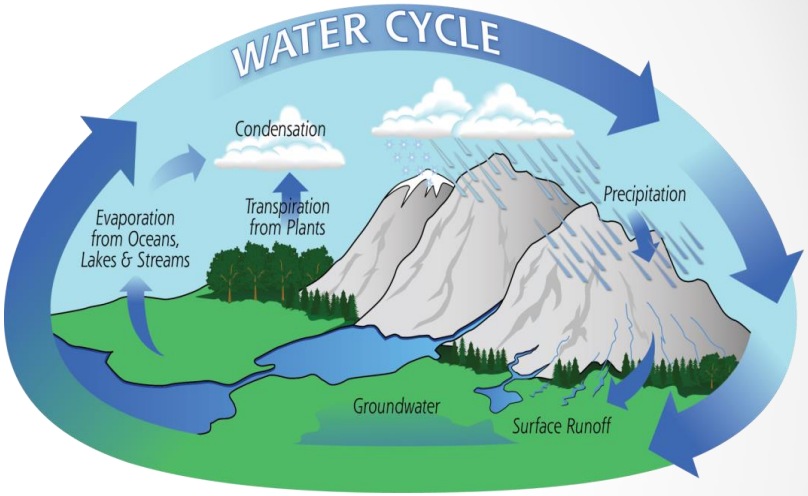


Image from www.pmm.nasa.gov

It rises into the air, cools, and condenses into droplets that form clouds. The clouds blow over the land, and the water in them falls as rain. The rain flows into rivers and eventually back into the oceans.

2. a. Check Point: Complete the following:

1. Weather influences seas and oceans in that _____.
2. The fall of rain or snow is known as _____.
3. When water evaporates into gas it is known as _____.
4. Evaporation is the opposite of _____.

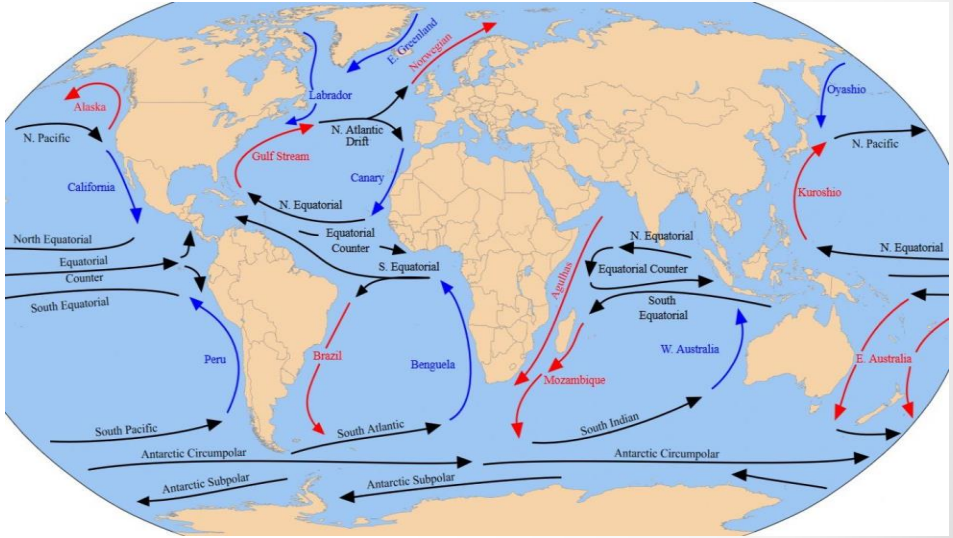
2.3. The Changing Ocean

The water in the seas and oceans is constantly moving, flowing, and swirling around. Waves, currents, and tides have a huge effect on planet Earth. They influence the weather, wildlife, fishing, and shipping and can even cause deadly disaster.

2.4.Currents

A current is a stream of flowing water within a sea or ocean. There are networks of huge currents flowing around the world's seas and oceans. They carry warm water into cooler areas, and vice versa. The water in a typical current moves about 6 miles (10 km) each day.

Currents affect the climate by changing the temperature of the oceans. Currents also make it easier for ships and marine animals to travel across the ocean.

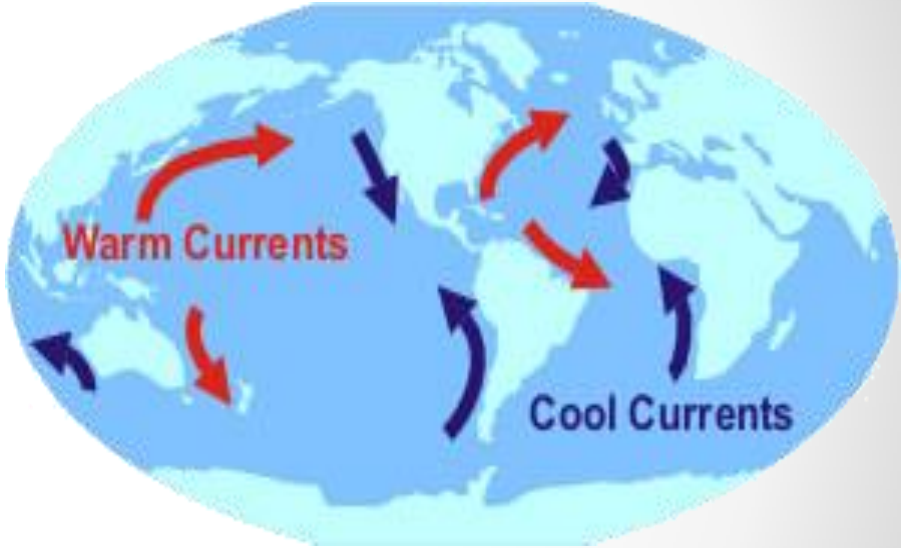


2.c. Complete the following:

1. The water in the seas and oceans move _____. (permanently, temporarily)
2. _____ and _____ can cause deadly disasters. (seas and oceans, waves and tides)
3. The change of atmosphere over a long period of time is _____. (weather, climate)
4. Currents help _____ and _____ to move around the world. (climate and weather, ships and marine animals)

2.5. Ocean Circulation

Scientists think that currents on the surface of the oceans are caused by winds. They tend to move from the warm waters around the equator toward the North and South Poles. As the water reaches the Poles, it cools and becomes denser and heavier. It sinks down to the ocean floor, creating deep-ocean currents that flow back toward the equator. In this way, currents of water circulate around and around in the ocean.



2.6. Waves

Ocean waves are made by the wind pushing at water on the surface of the sea. Waves are a form of energy. There are waves on the oceans all the time, but sometimes storms or tsunamis cause extra- large waves that can flatten coastal towns and villages and flood the land.

2.7. Tsunamis

A tsunami happens when a large amount of seawater moves suddenly. Most tsunamis are caused by earthquakes on the deep ocean floor. This sets up a series of fast waves shooting off in all directions, like ripples in a pond. When a tsunami wave reaches the shore, it slows down and pile up into a very high, extremely dangerous wave that crashes onto the land.

2.d. Choose the suitable word to make grammatical sentences:

1. Currents on the surface of the oceans _____around the equator. (move, moves, movement)
2. Oceans water in the north and south poles _____ cold. (is, are, be)
3. Ocean waves _____ a form of energy. (is, are, be)
4. A series of fast waves _____ a tsunami. (cause, causes, causing)
5. A tsunami is an extremely dangerous wave that _____ onto the land. (crash, crashes, crashing)

2.e. Match the items in list A with items of list B then make correct sentences.

1. The Arctic continent is found in the North Pole.
2. _____.
3. _____.
4. _____.
5. _____.

A	B
caused	down
dense	pole
sink	by
pile	up
north	water

Vocabulary Focus	
evaporate X condense warm X cold ocean surface X ocean floor constantly X temporarily increase X decrease	affect : influence constantly : permanently eventually : at the end typical : ideal extremely : very in turn : one after the other

Glossary

climate /ˈklaɪ.mət/ the general weather conditions usually found in a particular place
condense/kənˈdens/ to change from gas to liquid
constantly/ˈkɒn.stənt/ happening a lot or all the time
current/ˈkʌrənt/ a continuous flowing movement of water
disaster /dɪˈzɑːstə/ an event that causes a lot of harm or danger
droplet/ˈdrɒp.lət/ a small drop of liquid
fishing/ˈfɪʃ.ɪŋ/ catching fish
pole/pəʊl/ either of the two point at the exact top and bottom of the earth
precipitation/prɪˌsɪp.ɪˈteɪ.ʃən/ water that falls from the clouds toward the ground, especially as rain or snow
shipping/ˈʃɪp.ɪŋ/ the transport of goods by ships
storm /stɔːm/ an extreme weather condition with very strong wind, heavy rain, and often thunder and lightning
temperature/ˈtem.prə.tʃər/ the measured amount of heat in a place
tide/taɪd/ the regular change in the level of the sea
wildlife /ˈwaɪld.laɪf/ animals and plants that grow independently of people, usually in natural conditions

How to give a group presentation?