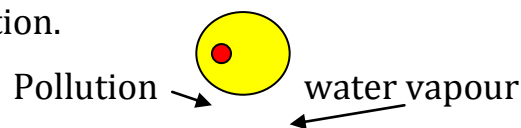

Grade 8 Science Chapter 1 Questions NAME: _____**Page 13 QUESTIONS**

1. 97% of water on Earth is SALT water.
2. Most fresh water is found FROZEN in ICE SHEETS at the **North and South Poles.**
3. Since most of the fresh water is frozen, **only 1/3 of FRESHWATER** is available for use by humans.
4. WATER must be heated or cooled to change from one state to another.
5. Water cycle...check notes for diagram.
6. Three states of water:
 - (i) SOLID – icebergs, glaciers
 - (ii) LIQUID – ocean, rain
 - (iii) GAS- water vapour in the air, fog
7. Evaporation – wiping a sponge then it's dry in an hour
Condensation – dew on the grass early in the morning
Condensation – your breath on a window on a cold day
Evaporation – clothes drying on a clothes line
8. Water moves through the water cycle. So pollution in air can be carried in water vapour from one place to another. It then forms clouds and when too much moisture is in it, the pollution falls to Earth in the form of precipitation.



PAGE 17 QUESTIONS

1. Salinity is the amount of salt dissolves in a specific amount of water.
2. Ocean water near the EQUATOR is SALTIER than ocean water elsewhere due to HIGHER RATE OF EVAPORATION.
3. Ocean salt can come from several sources: RAIN DISSOLVED MINERALS in ROCK, VOLCANOES, and UNDERSEA VOLCANOES releasing SALTS into the water.
4. DENSITY is the AMOUNT OF MASS of a substance in a CERTAIN UNIT VOLUME.
5. OCEAN WATER is MORE DENSE than FRESH WATER because of its SALT CONTENT.

PAGE 21 QUESTIONS

1. Ocean Water is salty. Fresh water is not.
2. Salt water occurs in the greatest amount in ocean water.
3. The salt in the ocean water originally comes from rock and volcanic eruptions.
4. As ocean water EVAPORATES, the SALT in the water is LEFT BEHIND, making the REMAINING WATER SALTIER.
5. A) OCEAN WATER is MORE DENSE than FRESHWATER.
B) Water with a HIGHER SALINITY is MORE DENSE.
6. Adding SALT to WATER lowers the FREEZING TEMPERATURE to **-1.9 °** Celcius.

7. in order to “MINE” valuable minerals from ocean water, you would have to EVAPORATE enormous amounts of SEAWATER to get TINY AMOUNTS OF MINERALS.

8. To separate DISSOLVED SOLIDS from OCEAN WATER, you would have to HEAT the water to cause it to EVAPORATE, leaving the solid behind.

9. OCEANS in TROPICAL AREAS have HIGHER SALINITY because the WATER EVAPORATES FASTER, leaving a HIGHER CONCENTRATION OF DISSOLVED MINERALS.

10. Oceans near the NORTH POLE and SOUTH POLE have HIGHER SALINITIES because there is LITTLE PRECIPITATION there.

Page 26 QUESTIONS

1. Four SOURCES OF FRESH WATER are:

- (i) Lakes, ponds and wetlands
- (ii) Streams and rivers,
- (iii) ground water
- (iv) Glaciers

2. GROUNDWATER is a source of freshwater from PRECIPITATION which TRICKLES THROUGH the GROUND until collects on BEDROCK.

3. GLACIERS are formed from PILES of ACCUMULATED SNOW that COMPRESSES over time.

4. The LAST ICE AGE ended 11 000 years ago.

5. GLOBAL WARMING is causing the EARTH'S GLACIERS to RECEDE by MELTING and SHRINKING.

PAGE 28 QUESTIONS

1. A DRAINAGE BASIN is an area of land that drains into a body of water.
2. THE CONTNIENTAL DIVIDE is a chain of mountains, including the Rocky Mountains, that separates the PACIFIC DRAINAGE BASIN from the DRAINAGE BASINS TO THE EAST OF THE MOUNTAINS.
3. RUN-OFF is **water that flows across the Earth's surface**, rather than soaking in the ground.
4. The force of gravity pulls run-off to the lowest possible point.
5. Four factors that affect run-ff:
 - (i) The nature of the ground material
 - (ii) The amount of rain
 - (iii) The slope of the land
 - (iv) The amount of vegetation

PAGE 33 QUESTIONS

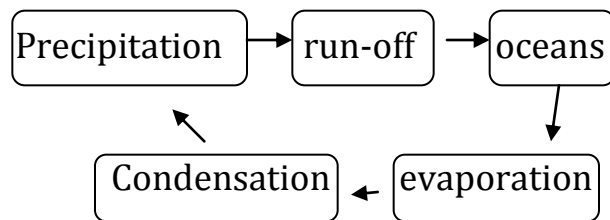
1. Snow that does not melt piles up and eventually compresses into ice.
2. If rainwater does not soak into the ground, then:
 - (i) There is not enough vegetation to absorb the rain
 - (ii) The rain was too heavy for the soil to absorb it
 - (iii) It rained too long and the soil was saturated
 - (iv) The slope of the hill was too steep to allow the vegetation to absorb it in time
 - (v) The hill may be paved or mostly rock
3. RUN-OFF is important part of the water cycle because it helps to fill the lakes, streams and rivers that then fill the oceans.

4. "NO MATTER WHERE THE RAIN LANDS, IT WILL EVENTUALLY END UP SOMEWHERE ELSE." This refers to the water cycle and how water is ALWAYS MOVING from one place to another.
5. A) Planting trees along the slope will DECREASE RUNOFF as more trees absorb more water.
B) Making slopes LESS STEEP, would decrease the amount of run-off as the existing vegetation would have more time to absorb the water.
C) Adding roads and parking lots to one side of the slope would INCREASE runoff since there is NO VEGETATION to absorb the water and the paved surface would not absorb the water either.
6. WATER POLLUTION in one part of the province (like a river or stream) would flow into other water bodies into DRAINAGE BASINS, carrying the pollution along with it, ending into the oceans.
7. Alpine glaciers are located in mountain areas.
Continental glaciers are massive and cover large areas of land.
8. GLACIERS are important to all living things because:
 - (i) they release water as meltwater in summer months
 - (ii) They slow the passage of water through the water cycle
 - (iii) They provide information about Earth's past climates.

PAGE 34-35 CHAPTER VIEW QUESTIONS

1. A) Approximately 71% of the Earth's surface is covered in water.
B) Only about 3% of the Earth's water is fresh.
2. The Sun is the driving force (source of energy) in the water cycle.
3. A person who studies water systems is a HYDROLOGIST.

4. The DEAD SEA is 9 times SALTIER than the ocean. The HIGH DENSITY makes people float better.
5. DIVIDES, separate DRAIN BASINS. EXAMPLES would include mountain ranges or other areas of high ground.
6. MOST of the world's glacier's are RECEEDING.
 - A) RECEEDING means melting and shrinking.
 - B) If the glaciers melt, ocean waters may rise.
7. FLOWCHART showing events in water cycle:



8. A) Constructing a large shopping mall would INCREASE RUN-OFF since vegetation can't absorb water and paved parking lots are created.
 - B) Building sub-divisions for two hundred families INCREASES RUN-OFF since you remove VEGATION which absorbs precipitation and land is paved.
9. You should cover exposed soil with PLANTS since plants control run-off.
10. Controlling run-off prevents flooding.
11. A) Town A has a water shortage in the summer because the demand is too high and the precipitation is low.
 - B) Water in BOTH TOWNS is lowest in WINTER. People aren't watering lawns or filling pools on December and January.

C) Both towns drop in supply during the summer months. The summer months are hotter and drier. It may rain less and water evaporates more quickly.

12. 29 % of Newfoundlanders rely on ground water as a source of drinking water. A danger the government must look for is pollution that could contaminate the groundwater.