BuiteNLand

1 havo/vwo TTO, Chapter 3

C3.1

Weather and climate

The climate says what the average weather conditions in a country is. Weather is a short period of time 🡪 Weather now for example.

Climate is a long period of time 🡪 30Years for example

Location matter a lot, 🡪 Closer to the equator means its warmer.

Climates at low latitudes

Climates with low latitudes are around the equator, you will find rainforest, savanna, steppe and desert climate’s there. The weather is very predictable 🡪 It’s almost always hot, the biggest difference is precipitation (Rain).

Climates at higher latitudes

Climates at higher latitudes (Closer to the poles) have the Continental, Tundra, Polar, alpine and sea climate.

C3.2

A blanket over the Earth

Because of the atmosphere Earth is suitable for life, The sun rays heat up the Earths surface. After that the heat will radiate to the air.

The higher the colder

How higher you are the less vegetation can grow,

1KM higher 🡪 6C colder.

The position of the sun

In the afternoon the sun gives the most heat because of its higher location the sun needs to divide over a smaller area 🡪 That area is hotter.

After sunset the sun won’t hit the surface anymore, The earth will radiate the heat is stored during the day. But if it’s a cloudy night it cools slower because the radiation leaves the earth slower.

Max and Min temp.

The average temperature of the day is the lowest + the highest temperature divided by 2.

From the equator to the pole

The difference of the sun changes per latitude because the earth is a sphere 🡪 Sun rays hit the Earth at different angles.

3.3

The temp during the course of the year

At low latitudes there are barely any differences between summer and winter.

The rotation of the earth

- Rotates around its axis in 24Hours (Night and day)

- Revolves around the sun in 365 Days (A year)

The Earth is at an angle to the sun. In March trough September the northern hemisphere is tilted towards the sun. In the other month the southern hemisphere.

It doesn’t really matter around the equator.

Polar day and Night.

In different latitudes the difference between day and night is bigger then in other latitudes.

3.4

The water cycle

Water on earth constantly changes location.

Water, water vapour and ice

Water also changes its form, gas, liquid and solid. When water evaporates it change into a gas 🡪 Water vapour. When its high in the air it cools down forming clouds. When the clouds become large enough it can come down in forms like,

-Rain

-Hail

-Snow

How does precipitation (rain) form

1 Hot air rises, the higher the colder. It start to condense with leads to rain.

2 When air is blown against mountains the air is forced to rise. Then it cools down and forms rain.

3 Warm air from low altitudes clash against cold air from polar regions. The warm air rises and forms rain.

An unequal distribution

Some places have more rain then others. The Netherlands has for example 800MM but tropical rainforest 2000MM per year. But Desserts almost has nothing.