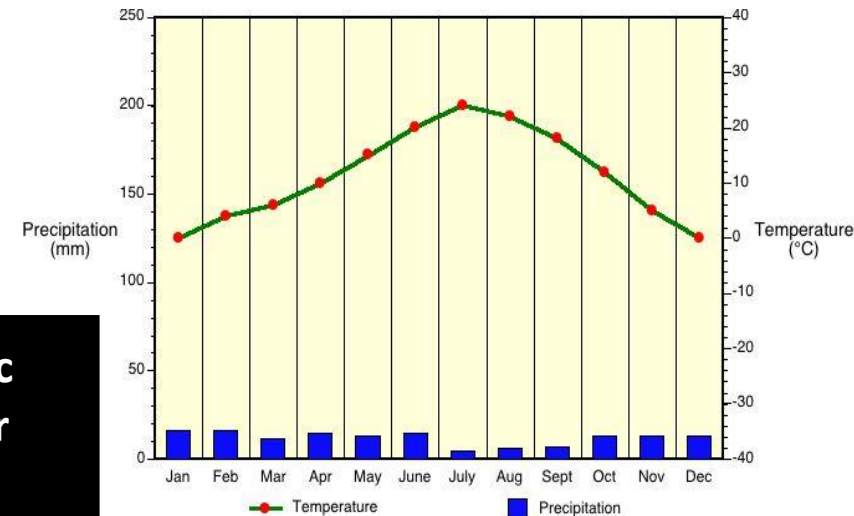


To the left is the climate graph of **Svalbard** and to the right is the climate graph of **Death Valley**. You should be able to **describe** both climates as well as describing the **differences** using the figures on both graphs. Remember to use the **correct axis** for temperature and precipitation (rain and snowfall)

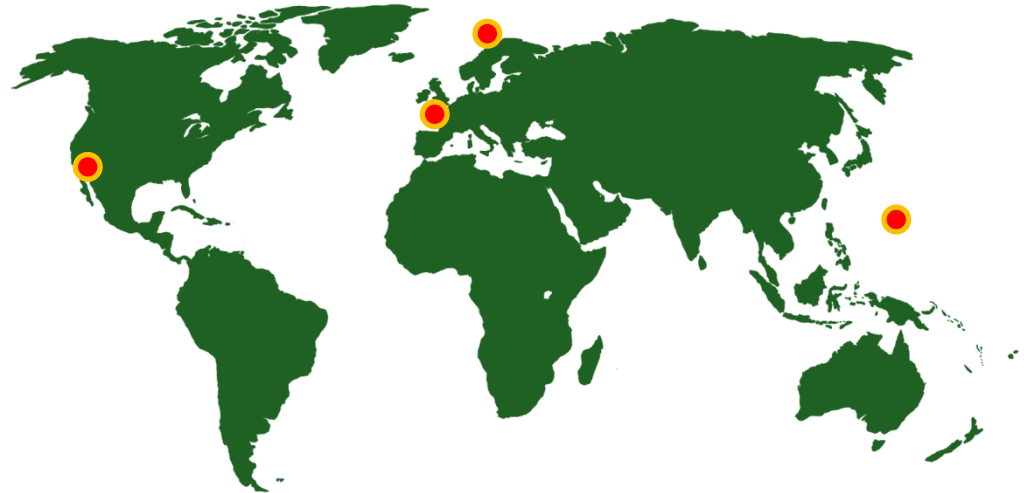
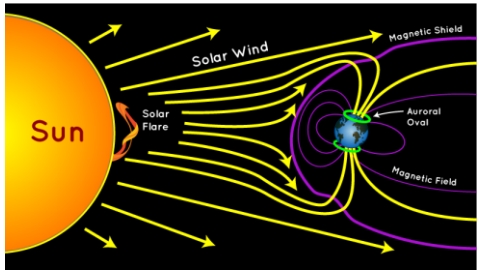


Year 8 Geography - Fantastic Places Knowledge Organiser (HT 5 and 6)

The **Arora Bolaris**, also known as the Northern Lights can often be seen above the Arctic Circle.



They are caused when the Earth's magnetic field funnels the solar wind down into the upper atmosphere. The charged particles collide with gasses in the atmosphere creating displays of colour across the sky.



- Svalbard** – A Norwegian archipelago in the Arctic Ocean
- Archipelago** – A large group of islands
- Desertification** – A process where land becomes increasingly arid (dry)
- Rain shadow** – An area with very little rainfall because it is sheltered from prevailing rain-bearing winds by a range of hills
- Micro-climate** – A small area which has its own unique climate
- Tundra** – A cold ecosystem with few trees and a permanently frozen subsoil
- Desert** – A dry and barren ecosystem which typically receives less than 250mm rainfall a year
- Destructive plate margin** – Where an oceanic plate **subducts** under a continental plate and is destroyed

Racetrack Playa is a dry lake in Death Valley famous for its 'gliding stones'. These stones move across the lakebed with no human or animal intervention. For years the cause of their movement was a mystery.



Today we believe the rocks move when rainwater collects on the lakebed then freezes. The rocks are trapped in these floating ice sheets and wind, funnelled by surrounding mountains blows them across the shallow lake. The trapped rocks drag along the lake bed creating the tracks and when the ice melts and the water evaporates just the rocks and the tracks are left.

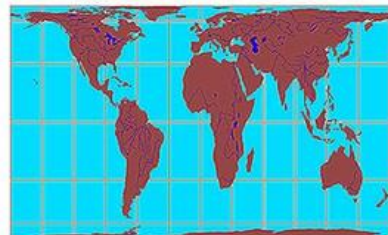
The **Svalbard seed bank** is sometimes referred to as the '**Doomsday Vault**'. It currently contains over a million seeds from virtually every country in the world. These seeds are stored so that their genetic properties can be preserved and possibly used to combat future problems such as climate change. It is considered to be in a perfect location due to its low temperatures, height above sea level, geological stability and low humidity as well as being very remote.



The way a map is drawn is called a PROJECTION. Map projections can alter the size, shape and distances between countries.



Mercator Projection



Gall-Peters Projection



Miller Cylindrical Projection



Mollweide Projection



The polar bear is native to Svalbard. It is said to be the only animal that sees humans as prey. As polar bears are so dangerous, it is illegal NOT to carry a deterrent such as a firearm when travelling through the tundra.



Death Valley has many titles to its name. In 1913 a temperature of 57 degrees Celsius was recorded making it the hottest place on Earth. With some parts of Death Valley only getting around 5mm rain a year it is the driest place in the USA. Finally, **Badwater Basin** is a dry lake bed in Death Valley is 282 feet below sea level making Death Valley the lowest place in the USA.

Stonehenge is a prehistoric monument in Wiltshire, England, 2 miles west of Amesbury. It consists of a ring of standing stones, with each standing stone around 13 feet high, 7 feet wide and weighing around 25 tons



Stonehenge attracts over 1.5 million visitors every year but many think that their experience at the site could be improved in a number of ways. Future plans to protect the environment whilst improving the site includes...

1. Building a tunnel so traffic from the nearby A303 is hidden from the site.
2. Relocate the visitor centre further from the stones and increase its size and the car parking facilities
3. Return the surrounding area back to how it would have looked 1000 years ago and enable tourists to explore other burial mounds in the area

The **Marianas Trench** is located in the Western Pacific. It is around 11,000 metres deep in places which means that Mt. Everest could fit in it with room to spare. It is found at a destructive plate margin where the Pacific plate is sinking below the Mariana Plate. This is known as a **subduction** zone. As the Pacific plate sinks, it drags the Mariana plate with it forming a deep underwater trench.

Life in the trench has to overcome several huge problems including...

1. How to live without light
2. How to live under pressures a thousand times greater than on the surface
3. How to live in temperatures that hover just above freezing

