



Northern Lights (Aurora Borealis)

- Polar lights (aurora polaris)
 - Northern lights (aurora borealis)
 - Southern lights (aurora australis)
- Occur above the magnetic poles in the northern and southern hemisphere
- Aurora borealis = Dawn of the North



What causes the northern lights?

- The Sun is constantly sending us heat, light and other energy and particles
 - Invisible magnetic field around the Earth protects us from most of it
- During a special solar storm (coronal mass ejection), the Sun sends out a burst of electrified gas at a high speed
- Some of the energy and particles can move through the magnetic field into the Earth's atmosphere at the north and south poles
- The particles interact with the gas particles in our atmosphere and are given an energy boost, which creates the aurora

What causes the northern lights?

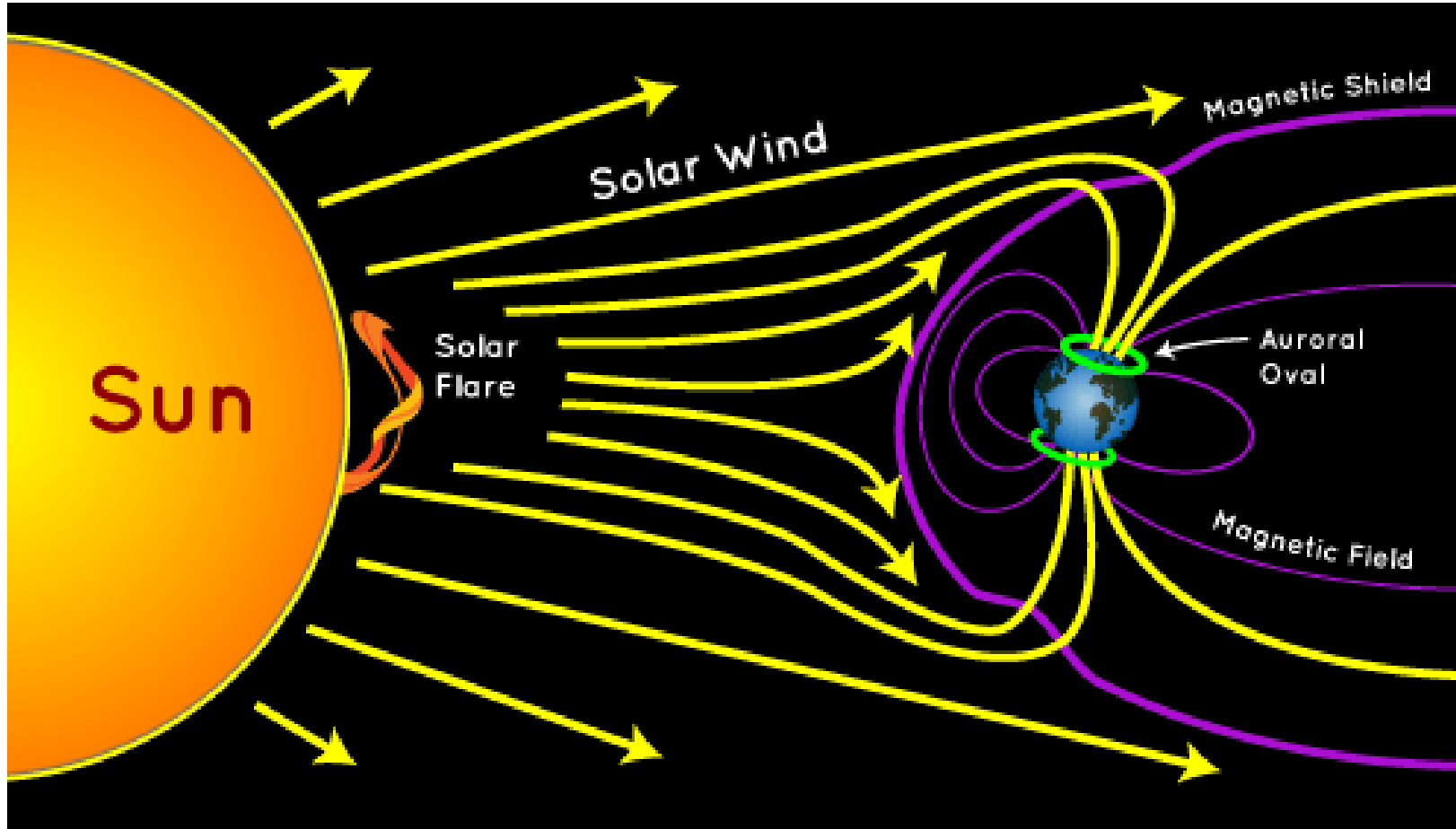


Photo: <https://spaceplace.nasa.gov/aurora/en/>

What colours are created?

- Light green and pink the most common
- Other colours include: purple, red, yellow and blue



When and where can you see the northern lights?

- The best time to see the lights are in the Winter and at night, when the sky is clear
 - They say that the best shows appear every 11 years
- In Canada, the common places are:
 - Yukon, North West Territories, Nunavut
- Alaska, Greenland, Iceland, Sweden, Norway, and Finland are other places
- Other planets also have auroras!
 - Jupiter and Saturn

Sources

- <https://www.cbc.ca/kidscbc2/the-feed/what-are-the-northern-lights>
- <https://spaceplace.nasa.gov/aurora/en/>
- <https://www.northernlightscentre.ca/northernlights.html>
- <https://www.thecanadianencyclopedia.ca/en/article/northern-lights>
- <https://www.loc.gov/everyday-mysteries/item/what-are-the-northern-lights/>

Photos:

Slide 2: Tobias Bjorkli from Pexels

Slide 4: <https://spaceplace.nasa.gov/aurora/en/>

Slide 5: Pixabay and Frans Van Heerden from Pexels