

**Science**

# **Earth and beyond**

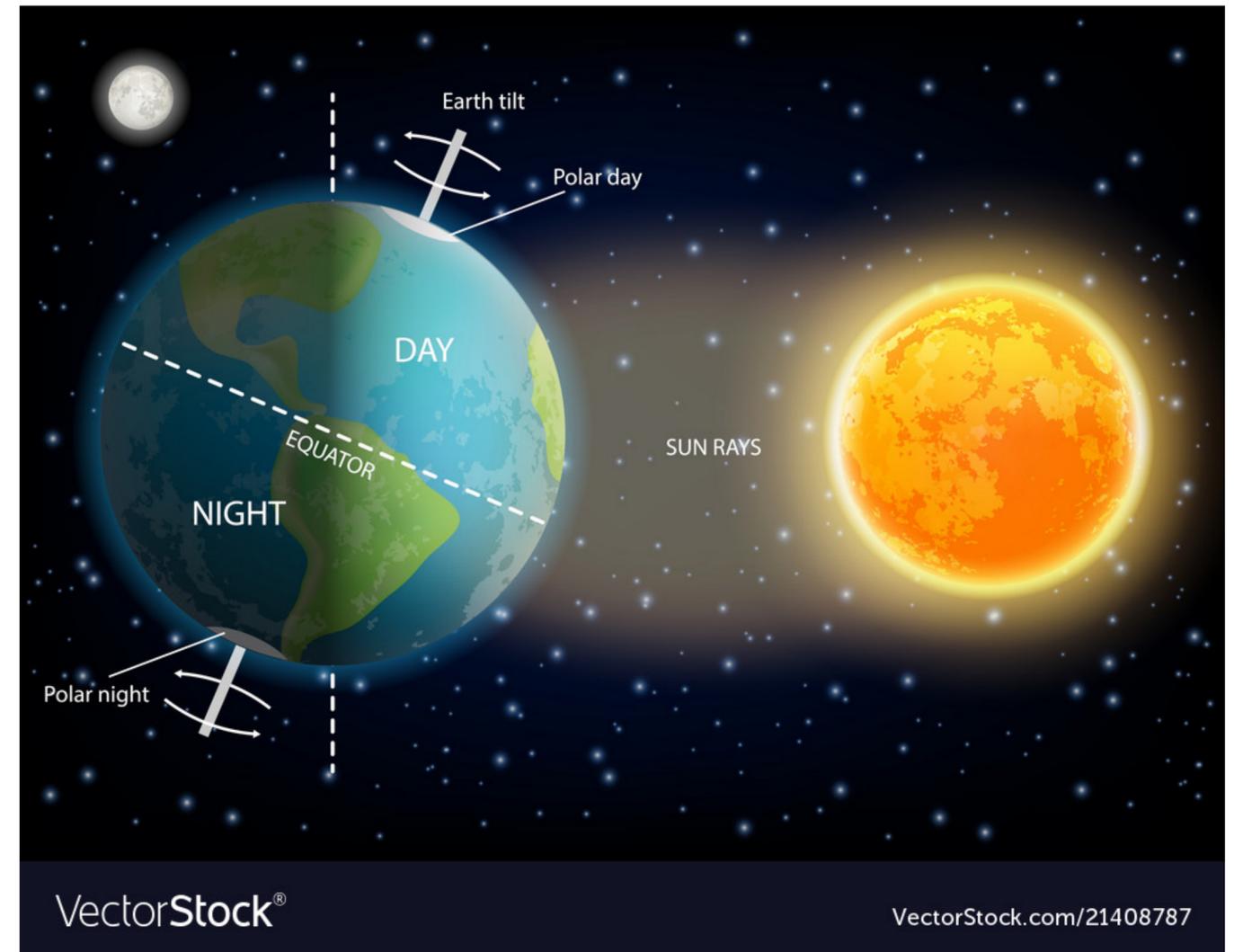
I can explain day and night.

**Thursday 11th June 2020**



# Day and night

The Earth is a sphere, or ball, which spins round and round as it travels around the Sun. one side of the Earth faces the Sun, while the other side faces away into space. The side facing the Sun is bathed in light and heat - we call this daytime. The side facing away is cooler and darker and experiences night.



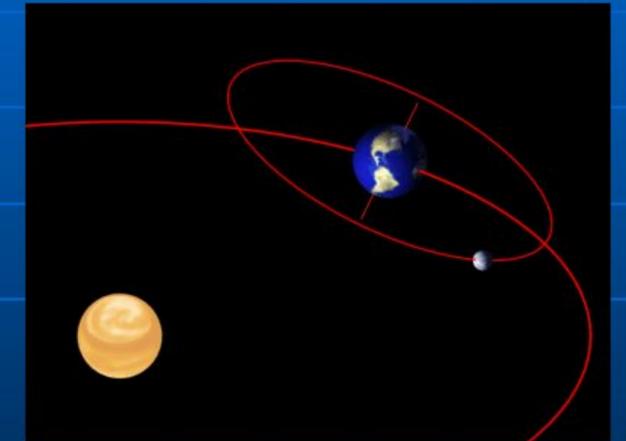
<https://www.bbc.co.uk/bitesize/clips/zrd9wmn>

# Movement of the Earth

Because the Earth is constantly spinning, the line between day and night is always moving around the planet. A day on Earth lasts 24 hours - that is how long it takes for the planet to spin around once.

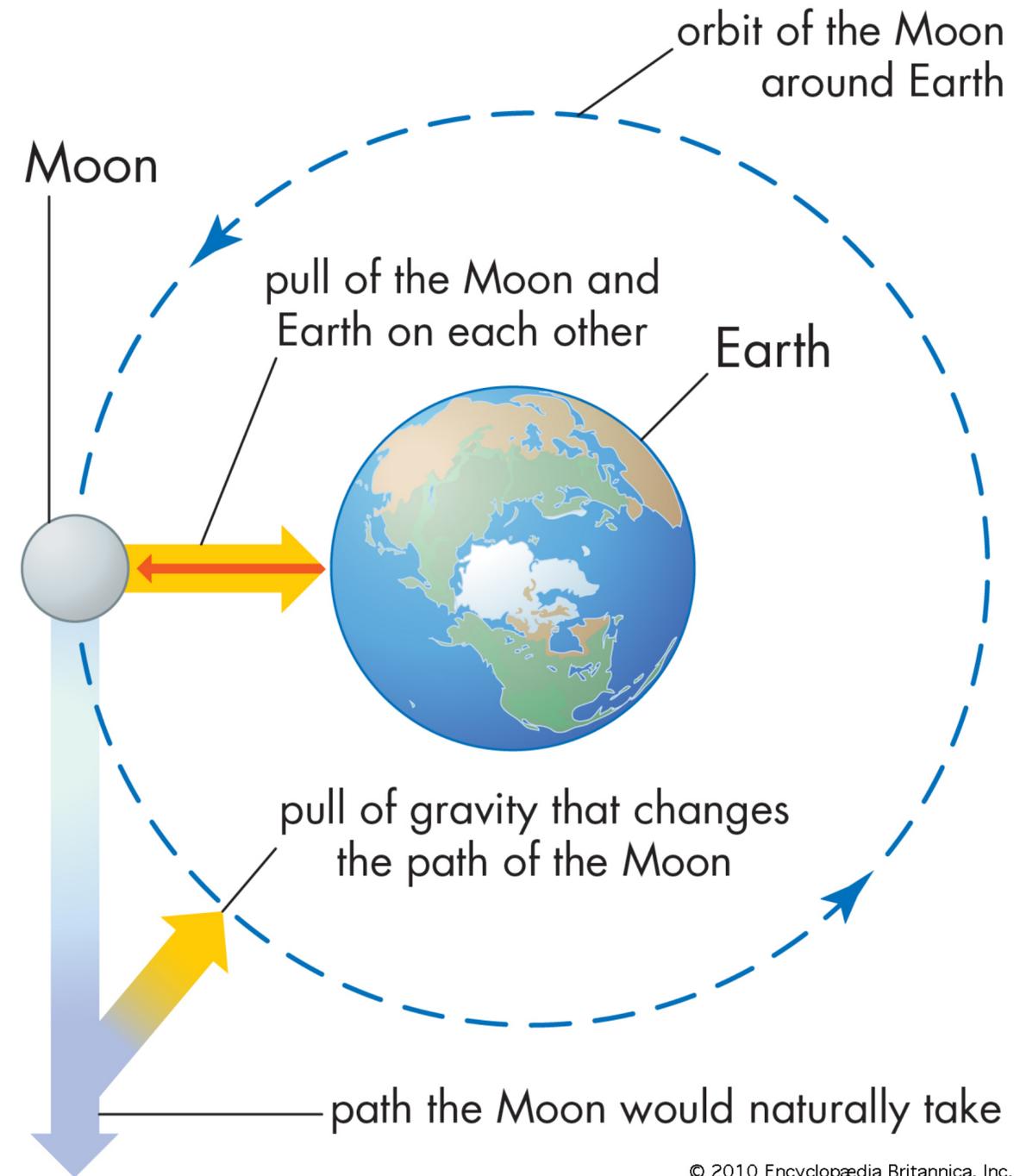
## Movement of the Earth

- Rotation is the earth spinning on its axis.
  - Earth's rotation causes day and night (approx. 24 hours).
- Revolution is the movement of one object around another object.
  - This is the movement of the earth around the sun.
  - Earth's revolution determines the length of a year (365.25 days).

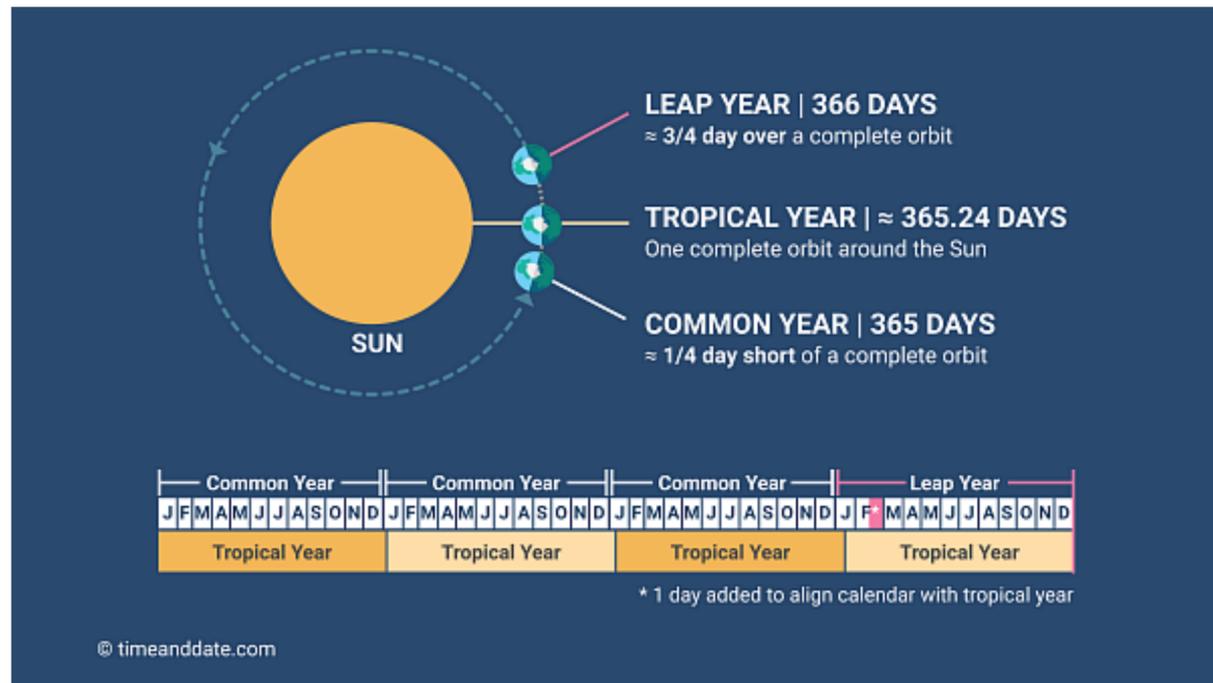


## Movement of the moon

The Moon is Earth's only natural satellite - a celestial body that orbits a planet. Its' orbit around our planet is shaped like a slightly squashed circle known as an ellipse. It takes 27.3 days for the Moon to travel all the way around the Earth and complete its' orbit.

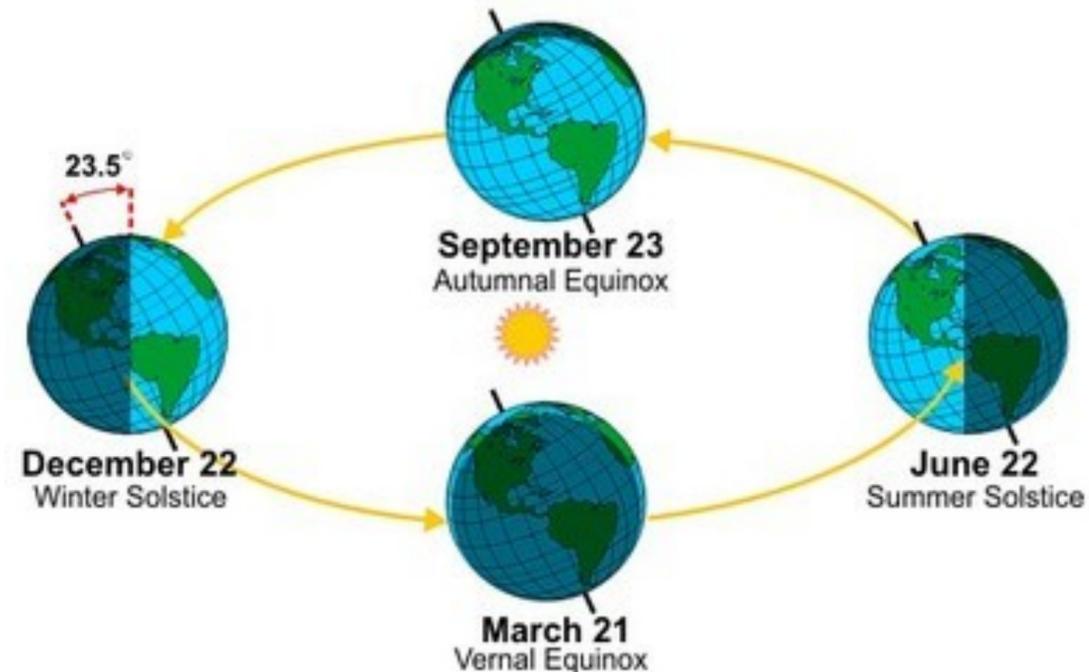


# Days in a year



Earth orbits the Sun at an average distance of 149.60 million km and one complete orbit takes about 365.25 days. We keep our calendar in sync with the seasons by having most years 365 days long but making just under 1/4 of all years 366-day “leap” years.

The seasons



**Task 1** Use the word bank to fill in the missing words.

away from	daytime	axis	Earth	rotation
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The imaginary line that runs through Earth from north to south is called its \_\_\_\_\_ . A globe is tilted because \_\_\_\_\_ is also tilted on its axis. Earth spins round once every 24 hours. This is called a \_\_\_\_\_ . When our part of Earth is facing the Sun, it is \_\_\_\_\_. When your part of the Earth is facing \_\_\_\_\_ the Sun, it is night time.

## Task 2 - Quiz

Q1. Draw a line to match each movement to the time it takes.

The Earth rotating once on its axis.

365 days

The Moon orbiting the Earth once.

28 days

The Earth orbiting the Sun once.

24 hours

Answer the questions.

Q2. What is it called when there are equal number of hours daylight and night? \_\_\_\_\_

Q3. How many days are there in a leap year?  
\_\_\_\_\_

Q4. How often do we have leap years?  
\_\_\_\_\_

Q5. Why do we have leap years?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_