

Year 5 Science

Week beginning 18th May



First watch this video

<https://www.bbc.co.uk/programmes/p04wf449>

Now read through these slides.

The year is split up into four seasons based on changes we experience at different times of year.

Spring

Summer

Each season is
around three
months long.

Autumn

Winter

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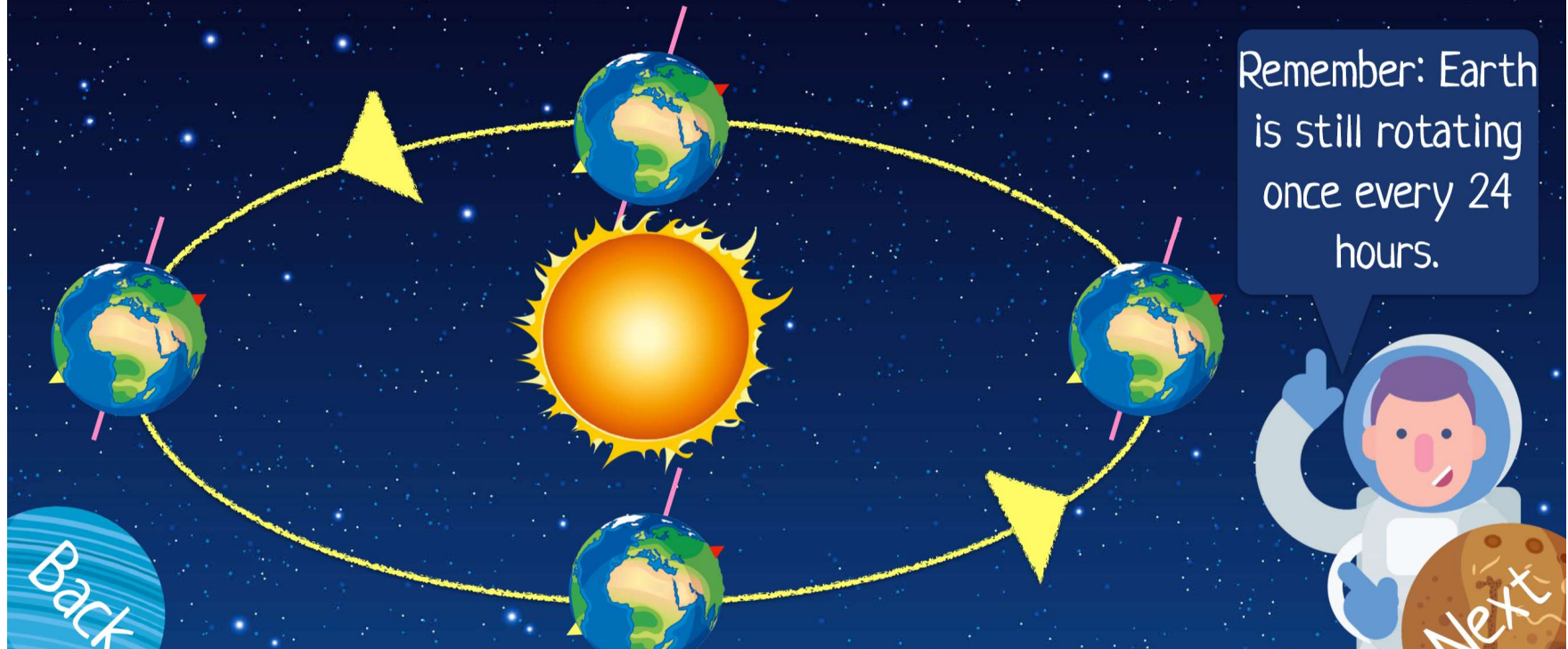
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The axis that Earth rotates around is tilted by 23.5° .
This means that places on the planet can be slightly tilted towards the Sun (the red triangle), or slightly tilted away from the Sun (the yellow triangle) at different times of year.



As Earth orbits the Sun, the tilt in the axis changes how much a location is tilted towards or away from the Sun.



When a part of the planet is tilted towards the Sun, it will receive more sunlight and be in the lit part of the planet for longer as it rotates.



When tilted towards the Sun, the location will experience summer!

This diagram shows the Northern Hemisphere (which the red triangle's in) in summer. What season will it be in the Southern Hemisphere (yellow triangle)?



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hemisphere noun: half of a sphere. Earth is split into the Northern Hemisphere and Southern Hemisphere by the equator.

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When tilted away from the Sun, the location will experience winter!

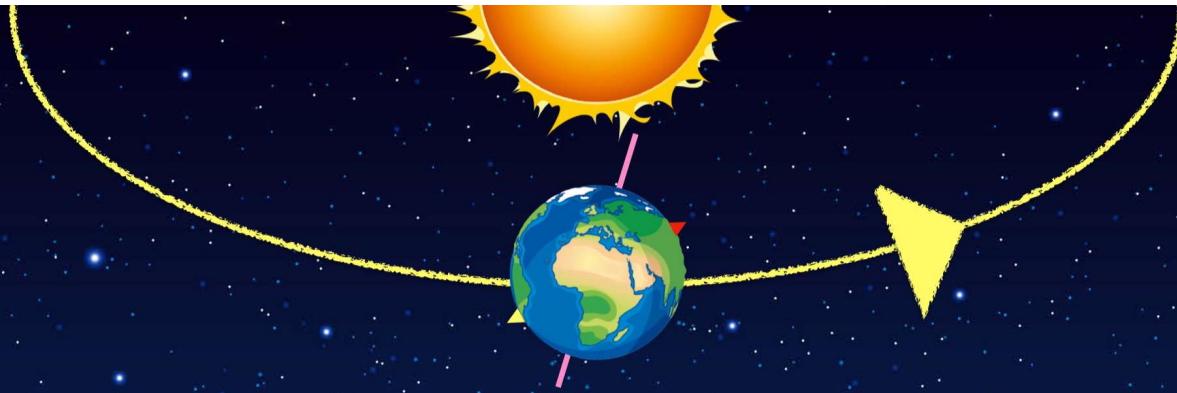
This diagram is showing the Southern Hemisphere in winter! It is tilted away from the Sun.



What will it be like in the Southern Hemisphere at this point in Earth's orbit?

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At certain points in Earth's orbit, neither the Northern or Southern Hemisphere is particularly tilted towards or away from the Sun.



Which season will the Northern Hemisphere be experiencing at the point in the diagram above?





Summer

The diagram illustrates Earth's orbit around the Sun. The Sun is a large yellow sphere at the top center. A yellow elliptical orbit path surrounds it. Earth is shown as a blue and green sphere on the left side of the orbit. A pink line represents Earth's axis, which is tilted towards the Sun. A yellow arrow on the orbit points clockwise. To the right of Earth, a yellow triangle marks a point on the orbit. Further right, a grey satellite with a blue dish and a small blue sphere with a pink face are visible. The background is a dark blue space with white stars.

Winter

When there is no significant tilt towards or away from the Sun, it will either be spring or autumn.

In the diagram above, the Northern Hemisphere will be in autumn. It is moving from a point in Earth's orbit where it was tilted towards the Sun (summer), to a point where it will be tilting away from the Sun (winter). It will be the opposite (spring) for the Southern Hemisphere.

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It may be useful to go back and watch the BBC video again.

Now go to the task sheet.