

## A reason for seasons

### Worksheet 1 Teacher's notes

1. What is your favourite season of the year? Why? Can you imagine living somewhere where it is always hot or very cold? Do you like the changes in the seasons?

*students' own answers*

2. What is the difference between the earth rotation and revolution?

*rotation is around the axis and revolution around the sun*

What is the earth's axis?

*a pole around which the earth rotates*

What is the earth's axis tilt?

*The Earth's axis is tilted at an angle of 23.5 degrees. This means that the Earth is always "pointing" to one side as it goes around the Sun. So, sometimes the Sun is in the direction that the Earth is pointing, but not at other times.*

3. Go online and watch a video about the seasons:

<http://www.youtube.com/watch?v=wwdB22opre0>

In pairs sum up what you have just learnt.

4. Read the information about seasons and answer these questions:

- What are Solstices? How many are there?

*The solstices are days when the Sun reaches its farthest northern and southern declinations. The winter solstice occurs on December 21 or 22 and marks the beginning of winter (this is the shortest day of the year). The summer solstice occurs on June 21 and marks the beginning of summer (this is the longest day of the year).*

- What are Equinoxes? How many are there?

*Equinoxes are days in which day and night are of equal duration. The two yearly equinoxes occur when the Sun crosses the celestial equator.*

*The vernal equinox occurs in late March (this is the beginning of spring in the Northern Hemisphere and the beginning of fall in the Southern Hemisphere); the autumnal equinox occurs in late September (this is the beginning of fall in the Northern Hemisphere and the beginning of spring in the Southern Hemisphere).*

- Give three main reasons for the seasons.

*tilt, revolution and the fact that the poles always point the same direction*

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5. Many people celebrate summer solstice. Read about Litha, Midsummer and Stonehenge.

<http://www.bbc.co.uk/religion/religions/paganism/holydays/summersolstice.shtml>



[http://fromeuropewithlovemolly.blogspot.com/2011\\_09\\_01\\_archive.html](http://fromeuropewithlovemolly.blogspot.com/2011_09_01_archive.html)