

# E4 Seasons

Level(s) – yr 3-8



## Lesson Focus:

- To demonstrate the reason that Earth, and other planets have seasons.
- To discuss the effect different seasons have on life on Earth, perhaps extending to making predictions about what it may be like if we lived on other planets.

## Specific Learning Outcomes:

*At the end of this lesson the students will be able to...*

- Identify that the tilt of a planet is the reason seasons occur.
- Identify that it is the effect of direct or indirect light on the planet which causes the difference in temperatures.
- For older age groups, to predict how seasons would work on planets of differing degrees of tilt.

## Suggested Learning Activities: *(identify some potential learning activities)*

- **Reason for the Seasons** (yrs 3 -8, approx 10 mins)  
Using a PowerPoint presentation we lead a discussion about why we have seasons and what effect they have on life.
- **Why is summer hotter than winter?** (yrs 3 -8, approx 5 mins)  
A practical experiment using a lamp as a heat source to show the effect of direct vs indirect light. In this, we will use heat-sensitive putty to show how much difference a direct source of light (like the Sun in summer) makes on temperature as opposed to an indirect source (like the Sun in winter).
- **Different place, different season** (yrs 3 -8, approx 5 mins)  
Using a small animated clip utilising a figure on a globe to show how seasons are different on different parts of the planet.
- **Worksheet** (yrs 3 -8, approx 10 mins)  
A worksheet for children to identify how seasons would work on other planets.

## Curriculum Links:

*e.g. Science – Astronomical Systems L4-7*

**Science:** Planet Earth and beyond, Earth Systems, Interacting systems and astronomical systems –L 3 - 8

## Resources & Preparation:

*e.g. people, physical items, specialised rooms/areas*

- Power point on shared drive
- Lamp, polystyrene balls and thermo chromatic putty.
- Animated Seasons clip on shared drive.
- Prepared and copied worksheet sufficient for session.

## Key Competencies:

Please tick:

Thinking

Using language, symbols and texts

Managing Self

Relating to Others

Participating and Contributing

## Prior Knowledge and Experiences:

Identify knowledge which students must already have in order to successfully achieve the identified learning outcomes

- For younger children, it is helpful to have discussed the changes that they have noticed with the seasons, e.g. temperatures, daylight hours etc.
- For older child, it is useful for them to have heard the terms direct/indirect light, and to have a basic idea of the Earth's orbit and rotation.