

Into Our Skies: Space in Schools

Earth & Space (Upper KS2)

National Curriculum Statutory Requirements (as of September 2013).

1. Describe the movement of the Earth, and other planets, relative to the Sun in the Solar System.
2. Describe the movement of the Moon relative to the Earth.
3. Describe the Sun, Earth, and Moon as approximately spherical bodies.
4. Use the idea of Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.

Resources Available

Please note you can deliver these resources in any order.

Statutory Requirement #1.

- Interactive educational video "Orbits" including teacher support notes for both dance and science content.
This session starts with an aerobic game of 'Asteroid Dodge!' to warm up. A creative activity investigates the motion of an orbit to enable participants to choreograph solos with their own prop. Learn the order of the Planets with our original dance mnemonic and cool down with gentle stretches to complete this lesson about orbits.
- Lesson on "How old are you on Jupiter?" (PowerPoint and teacher notes)
Students will use their understanding of how planets orbit the Sun to determine how old they would be on another planet in the Solar System.
- Practical lesson on "Making an orrery" (PowerPoint and teacher notes)
Students will make an orrery and demonstrate their understanding of the scale of the Solar System and investigate how the planets orbit the Sun relative to each other.

Statutory Requirement #2.

- Interactive educational video "Orbits" including teacher support notes for both dance and science content (as per statutory requirement #1)
- Lesson investigation on "Why does the Moon look different?" (PowerPoint and teacher notes)
Students will use the practical activity to investigate how the Moon rotates once every 28 days and appears differently in our sky at different times.

Statutory Requirement #3.

- Interactive educational video “Spheres” including teacher support notes for both dance and science content.
Articulate circles in the body to warm up, before exploring the 3-dimensional shape of our Earth, Moon and Sun. A step-by-step, creative task guides pupils through making their own ‘Sphere Sequence’. Cool down completes the session with opportunity to reflect on the sizes of the Earth, Moon and Sun.
- Lesson investigation “How do we know Earth is a Sphere?” (PowerPoint and teacher notes)
Students will undertake a practical activity to see what evidence there is that the Earth is spherical and not flat.

Statutory Requirement #4.

- Interactive educational video “Earth’s Rotation” including teacher support notes for both dance and science content.
Warm up generates energy in the body to kick off our ‘Day and Night’ episode. Participants take on the role of Earth creating solos that rotate in the light of the ‘Sun.’ Examine the cause, and size of shadows, draw a Sun pathway and stretch in shadow shapes to develop a ‘Sun Shadow loop’ that can be performed in duets. Cool down ends with a still and reflective moment.
- Lesson on “Why do we get day and night?” (PowerPoint and teacher notes)
A classroom demonstration using a globe to demonstrate how we see the Sun rise in the east and set in the west.
- Lesson Investigation “How does the length of a shadow change over one day?” (PowerPoint and teacher notes)
Students will undertake a practical activity to investigate what happens to the length of a shadow as Earth rotates and plot a line graph of their results.