

Science Progression-Light, Sound and Earth & Space







Earth and Space:

Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Describe the movement of the Earth and other planets relative to the sun in the solar system.

Describe the movement of the moon relative to the Earth.

Describe the sun, Earth and moon as approximately spherical bodies.

Year 6



Earth and Space link - Forces:

Identify the effects of air resistance, water resistance and friction that act between moving surfaces.

Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.

4

Light:

Recognise that light appears to travel in straight lines.
Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the

Explain that we see things because light travels from light sources to objects and then to our eyes.

Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that cast them.

Year 4

Sound:

Identify how sounds are made associating some of them with something vibrating.

Recognise that sounds get fainter as the distance from the sound source increases.

Find patterns between the pitch of a sound and the features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it.

Light:

Recognise that they need light in order to see things and that dark is the absence of light.

Notice that light is reflected from surfaces.

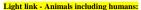
Recognise that light from the sun can be dangerous and

that there are ways to protect their eyes.

Recognise that shadows are formed when the light from a light is blocked by an opaque object.

Find patterns in the way that the size of shadows change.

<u>Year 3</u>



Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Development matters - Describe what they see, hear and feel whilst outside.

Recognise some environments that are different to the one in which they live. Understand the effect of changing seasons on the natural world around them. Curriculum statement from milestones document To understand that they

are part of a bigger world.

Year 2

Year 1

EYFS

Seasonal change (Earth and Space):

Observe changes across the 4 seasons.

Observe and describe weather associated with the seasons and how day length varies.

Light link - Materials:

Distinguish between an object and the material from which it is made.

Describe the simple physical properties of a variety of everyday materials.

Compare and group together a variety of everyday materials on the basis of their simple properties



