

Orton Wistow Primary School – Curriculum Plan

Subject : Science - Light

Year : 3

Term : Autumn



Vocabulary

Knowledge What children will know

Understanding What children will understand

Skills What children will be able to do

Define the word and include etymology if useful.

Learning	Teaching	Assessment
Remembering	Telling	Testing

Learning	Teaching	Assessment
Practising	Coaching	Observing

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Reflect - When light from an object is reflected by a surface, it changes direction. It bounces off the surface at the same angle as it hits it. From the Latin reflex – which means bent back.

Light source - Light comes from different sources called light sources; our main natural light source is the sun. Other sources include fire, stars and man-made light sources such as light-bulbs and torches

Shadows a dark shape that is formed when an object blocks a source of light.

Opaque - not able to be seen through; not transparent.

Transparent - allowing light to pass through so that objects behind can be distinctly seen from Latin *transparere*, from *trans-* 'through' + *parere* 'appear'.

Translucent - allowing light, but not detailed shapes, to pass through; semi-transparent. Latin *translucent-* 'shining

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 source is blocked by a solid object.

Understand what might cause shadows to change.

Find patterns in the way that the size of shadows change and the ways the shadows change as the light source moves or the distance between the light source and the object changes.

Working Scientifically

Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Use straightforward scientific evidence to answer questions or to support their findings.

through', from the verb *translucere*, from *trans-* 'through' + *lucere* 'to shine'.

Orton Wistow Primary School – Curriculum Plan

Subject : Science - Rocks

Year : 3

Term : Autumn



Vocabulary

Define the word and include etymology if useful.

Rocks - the solid mineral material forming part of the surface of the earth and other similar planets, exposed on the surface or underlying the soil.
Soil - the upper layer of earth in which plants grow, a black or dark brown material typically consisting of a mixture of organic remains, clay, and rock particles.
Fossils - the remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form. A Latin word meaning dug up.
Grains - Rocks are solid at room temperature. They are made of grains that fit together. Each grain in a piece of rock is made from a mineral, which is a chemical



Knowledge What children will know

Learning	Teaching	Assessment
Remembering	Telling	Testing

Describe in simple terms how fossils are formed when things that have lived are trapped within rock

Recognise that soils are made from rocks and organic matter.



Understanding What children will understand

Learning	Teaching	Assessment
Practising	Coaching	Observing

Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties

Explore different soils and identify similarities and differences between them.



Skills What children will be able to do

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Observe rocks – including those in buildings and gravestones – exploring how and why they might have changed over time.

Use a hand lens or microscope to **identify and classify** rocks according to whether they have grains or crystals and whether they have fossils in them.

Research and discuss different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed.

Investigate what happens when rocks are rubbed together or what changes occur when they are in water.







<p>compound. The grains in a rock can have different colours, shapes and sizes.</p> <p>Crystals - a special kind of solid material where the molecules fit together in a repeating pattern. This pattern causes the material to form all sorts of unique shapes. From Greek <i>krystallos</i> meaning 'ice or a mineral resembling it.</p> <p>Absorbent – how well a substance can soak up water. From the Latin verb <i>Absorbere</i> – which means swallow up.</p>			<p>Working Scientifically</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>
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Orton Wistow Primary School – Curriculum Plan

Subject : Science – Animals inc Humans

Year : 3

Term : Spring

			
Vocabulary	Knowledge What children will know		Skills What children will be able to do
Define the word and include etymology if useful.	Learning <small>Remembering</small>	Teaching <small>Telling</small>	Assessment <small>Testing</small>
<p>Animals - living organism that feeds or organic matter, typically having specialised sense organs and nervous system and being able to respond rapidly to stimuli.</p>	<p>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p>		<p>Understand the importance of nutrition.</p> <p>Find out how different parts of the body have special functions.</p> <p>Identify and group animals with and without a skeleton and observe and compare their movement.</p> <p>Group and classify animals according to what they eat.</p>



<p>Nutrition - the process of providing or obtaining the food necessary for health and growth.</p> <p>Fruit - the sweet and fleshy product of a tree or other plant that contains seed and can be eaten as food.</p> <p>Vegetables a plant or part of a plant used as food, such as a cabbage, potato, turnip, or bean</p> <p>Dairy containing or made from milk.</p> <p>Protein - Protein builds, maintains, and replaces the tissues in your body. Your muscles, your organs, and your immune system are made up mostly of protein.</p> <p>Fat natural oily substance occurring in animal bodies, especially when deposited as a layer under the skin or around certain organs.</p>	<p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>Pupils should be introduced to the main body parts associated with the skeleton and muscles.</p>		<p>Working Scientifically</p> <p>Set up simple practical enquiries, comparative and fair tests</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p>
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Orton Wistow Primary School – Curriculum Plan

Subject : Science – Forces and Magnets

Year : 3

Term : Spring



																					
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<p>Attract - to pull to or draw toward oneself or itself</p> <p>Repel - to push away or force back.</p> <p>Magnet A magnet is an object that is made of materials that create a magnetic field. Magnets have at least one north pole and one south pole</p> <p>Force - A force is a push or pull that causes a change in speed, direction or shape. All forces come in pairs, no force exists by itself.</p>	<p>Compare how things move on different surfaces</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others describe magnets as having two poles</p>	<p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>Explore the behaviour and everyday uses of different magnets.</p>	<p>Compare how different things move and group them.</p> <p>Carry out tests to find how far things move on different surfaces and gather and record data to find answers to questions.</p> <p>Explore the strengths of different magnets and find ways to compare them.</p> <p>Working Scientifically</p> <p>Set up simple practical enquiries, comparative and fair tests</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p>																		





Orton Wistow Primary School – Curriculum Plan

Subject : Science – Animals inc Humans

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Orton Wistow Primary School – Curriculum Plan

Subject : Science – Plants

Year : 3

Term : Summer



Vocabulary

Define the word and include etymology if useful.

Seed - the unit of reproduction of a flowering plant, capable of developing into another such plant.

Bulb - a rounded underground storage organ present in some plants, notably those of the lily family, consisting of a short stem surrounded by fleshy scale leaves or leaf bases, lying dormant over winter.

Plant - a living organism typified by growing in a permanent site, that absorbs water and inorganic matter through its roots and uses photosynthesis through its leaves.

Temperature - the degree or intensity of heat



Knowledge What children will know

Learning	Teaching	Assessment
Remembering	Telling	Testing

Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant



Understanding What children will understand

Learning	Teaching	Assessment
Practising	Coaching	Observing

Pupils should be introduced to the relationship between structure and function; the idea that every part has a job to do. They should explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.

Investigate the way in which water is transported within plants

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.



Skills What children will be able to do

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Compare the effect if different factors on plant growth e.g. the amount of light, the amount of fertiliser.

Working Scientifically

Ask relevant questions and using different types of scientific enquiries to answer them

Identify differences, similarities or changes related to simple scientific ideas and processes

Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers



Environment - the surroundings or conditions in which a person, plant or animal lives or operates.

Nutrition - the process of providing or obtaining the food necessary for health and growth.

