Science at Southwold School

At Southwold Primary and Nursery School we aim to stimulate and foster children's enthusiasm for the world around them. We want the children of Southwold to question their world and know how to find answers to their questions, preparing them for the increasingly scientific and technological world they are growing up in. Southwold believes that key skills and knowledge should be taught as practically as possible, enabling children to learn through experimentation; making, analysing and correcting their mistakes. Where possible science provision is enriched through external visits or visiting specialists, to provide children with an additional stimulus and as a medium for cross-curricular work.

Aims

The national curriculum for science aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Year group	Term 1 2018-2019
Year 1	**Everyday Materials** - Identify and name a variety of everyday materials - Describe physical properties of everyday materials - Compare materials
Year 2	**Everyday Materials** - Identify and compare uses of a variety of materials - How the shape of solid objects can be changed by squashing, bending, twisting and stretching
Year 3	**Light** - Need light in order to see - Light is reflected from surfaces - Light from the sun can be dangerous - Shadows are formed when light sources are blocked - Find patterns in how shadows change
Year 4	**Sound** - How sounds are made - Vibrations travel to the ear - Patterns of pitch - Patterns between volume and strength of vibration - Sounds get fainter the further you are from them

Year 5	**Animals including humans** - Humans – babies to old age
Year 6	**Electricity** - Adjusting brightness and volume by adjusting cells - Recognise electric symbols in diagrams

Year group	**Term 2 2018-2019**
Year 1	**Everyday Materials** - Identify and name a variety of everyday materials - Describe physical properties of everyday materials - Compare materials
Year 2	**Everyday Materials** - Identify and compare uses of a variety of materials - How the shape of solid objects can be changed by squashing, bending, twisting and stretching
Year 3	**Rocks** - Compare and group together different types of rocks - Describe how fossils are formed - Recognise that soils are made from rocks
Year 4	**States of Matter** - Compare and group materials - Materials change state when heated or cooler - Evaporation and condensation in the water cycle
Year 5	**Animals including humans** - Humans – babies to old age
Year 6	**Light** - How light travels - Light sources - How light is seen by the eye - Why shadows have the same shape as their objects

Year group	**Term 3 2018-2019**
Year 1	**Humans including Animals** - Name common animals - Carnivores, herbivores, omnivores - Describe and compare common animals - Identify, name, draw, label parts of the human body
Year 2	**Living Things and their habitats** - Differences between living and dead - how do habitats provide for the needs of their inhabitants

	- Name plants and animals in their habitats - How animals obtain food from plants (food chains)
Year 3	**Animals including Humans** - Identify that animals including need the right types and amount of nutrition - That humans and animals have skeletons and muscles
Year 4	**Living Things and their habitats** - Living things can be grouped - Use classification keys to help group, identify and name living things - Environments can change
Year 5	**All Living things and their habitats** - Life cycles of mammals - Reproduction in plants and animals
Year 6	**Animals including humans** - Main parts of circulatory system - Impact of diet, exercise, drugs and lifestyle - Transport of nutrients and water within animals

Year group	**Term 4 2018-2019**
Year 1	**Humans including Animals** - Name common animals - Carnivores, herbivores, omnivores - Describe and compare common animals - Identify, name, draw, label parts of the human body
Year 2	**Animals including humans** - Animals including humans have offspring - Basic needs of animals including humans for survival - Importance of exercise, eating the right amount of food, hygiene
Year 3	**Sound** - How sounds are made - Vibrations travel to the ear - Patterns of pitch - Patterns between volume and strength of vibration - Sounds get fainter the further you are from them
Year 4	**Animals including humans** - Functions of the digestive system - Types of teeth - Food chains
Year 5	**Earth and Space** - Movement of Earth relative to the sun - Movement of moon to the Earth - Planets as spherical shapes - Rotation causes day/night

Year 6	**Evolution and Inheritance** - Living things have changed over time - Information Fossils give us - How plants and animals adapt to their environment

Year group	**Term 5 2018-2019**
Year 1	**Seasonal Changes** - Observe changes across 4 seasons - Observe and describe weather associated with the seasons - How day length varies
Year 2	**Plants** - How seeds and bulbs grow into mature plants - How plants need water, light and suitable temperature to grow
Year 3	**Plants** - Identify and describe parts of different flowering plants - Requirements of plants for life and growth - How water is transported within plants - Part that flowers play in the life cycle.
Year 4	**Electricity** - Common appliances - Construct a simple electrical circuit series - Will a lamp light in a simple series circuit - Recognise that switches open and close and have an effect on the circuit - Name common conductors and insulators
Year 5	**Properties and changes of materials** - Group materials on their properties - Materials dissolve to form solutions - How mixtures are separated - Uses of everyday materials - Reversible/ irreversible changes
Year 6	**Living things and their habitats** - Classification of living things - Reasoning for classifications

Year group	**Term 6 2018-2019**
Year 1	**Seasonal Changes** - Observe changes across 4 seasons - Observe and describe weather associated with the seasons - How day length varies

Year 2	**Plants** - How seeds and bulbs grow into mature plants - How plants need water, light and suitable temperature to grow
Year 3	**Forces and Magnets** - Compare how things move on different surfaces - Notice that some forces need contact but magnetic forces do not. - Magnets attract and repel - Compare magnetic/non –magnetic materials
Year 4	**Electricity** - Common appliances - Construct a simple electrical circuit series - Will a lamp light in a simple series circuit - Recognise that switches open and close and have an effect on the circuit - Name common conductors and insulators
Year 5	**Forces** - Gravity - Air Resistance - Water resistance - Friction - Mechanism - Levers/pulleys/ gears
Year 6	**Living things and their habitats** - Classification of living things - Reasoning for classifications