

# Intent

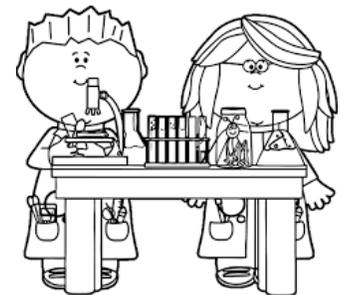
Curious, confident children who use what they have learnt to find out more about the world.

## We are **curious** in Science when we ...

- **want to know more**, asking “What if...?”
- **ask** our own questions, **think** of ways to find evidence and **suggest** answers.
- **use** our experiences and knowledge to **choose** the best way forward.
- **recognise** that unexpected answers can help us learn.
- **notice** science in the world around us.
- **make links** between what we’ve learnt and how we can contribute positive changes.

## We are **confident** in Science when we ...

- **share** and **value** each other’s ideas with respect.
- **take part**, work together with empathy and contribute.



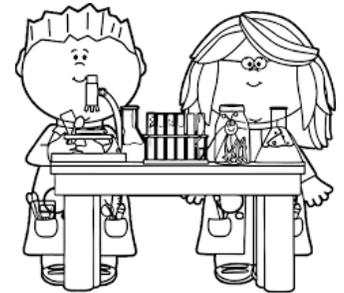
# Curious, confident children who use what they have learnt to find out more about the world.

In the Early Years, children are taught Science through the key areas of learning. The key areas interlink with one another and build upon prior knowledge that has been developed in other aspects of learning. This facilitates the children in developing certain skills to become confident learners/explorers/scientists.

Through a broad range of teacher-led, child-initiated and continuous learning opportunities, children will be taught to:

- Use their senses to investigate a range of objects and materials
- Find out about, identify and observe the different features of living things, objects and worldly events
- Identify and find out about features of the place they live and in the natural world around them.
- Look closely at similarities, differences, patterns and change
- Ask questions about why things happen and why things work
- Develop their communication and co-operation skills
- Talk about their findings, sometimes recording them

In KS1 and KS2 children develop their knowledge, understanding and working scientifically skills following a series of units set out on the Science Roadmap.



Year One

"Everyday Materials" – naming, describing & comparing materials

"Our Changing World:- Animal Antics, Plants & Sensing the Seasons"  
"Using our Senses" - ongoing

"Plant Detectives" – naming, describing and comparing plants growing in the local area

Year Two

"Looking at Animals" – naming, describing and comparing range of vertebrates, focus on body parts & senses

"Take care" – healthy diet, keeping clean and fit

"Growing Up" – changes and needs – babies to children

"Apprentice Gardener" – growing plants from seed & what plants need to grow

"What is your habitat?" – where do animals live?

"Our Changing World" - ongoing

"Materials shaping up" – changing the shape of different materials  
"Materials: good choices" – properties and choosing materials for specific tasks

Year Three

"How does your Garden Grow?" – plant parts & functions  
Plant reproduction via production of seeds

"Rock Detectives" – rocks & soils

"The power of Forces" – introducing contact and non-contact forces: friction & magnetism

"Amazing bodies" – muscular-skeletal system

"Can you see me?" – light & shadows

"Our Changing World" - ongoing

Year Four

"In a State" – states of matter

"Where does all that food go?" – digestion

"Good Vibrations" – sound

"Switched on" – introducing electrical circuits

All year groups gain experience with different enquiry types: grouping & classifying, comparative/fair testing, observation over time, pattern seeking, secondary research and problem solving

Children develop their skills in working scientifically through: planning, doing, recording results and reviewing  
Skills within each area develop as the children move through the school and increasing opportunities are provided to make decisions within their investigating encourage children to become more independent in their finding out about the world around them.

Year Five

"Who am I?" – introducing classification in animals

"Human Impact" – affects on the environment

"Everyday Materials" – how properties affect the choice of material for everyday objects  
"Earth & Beyond" puberty in humans

"Light up our World" & Ibn al-Haytham

"Everything Changes" – inheritance, adaptation & evolution

"Properties of Materials" – reversible and irreversible changes"

"Body Pump" – heart & circulation system

"Danger! Low Voltage" - electricity

"Nature Library" – classification

"Body Health" – impact of diet, exercise, drugs & lifestyle on body functioning

Year Six

"Circle of Life & Plant/Animal Reproduction"

"Get Sorted" – classification of materials

"Feel the Force" – how forces affect movement & mechanisms can increase the affect of a force

"Marvellous Mixtures" – separating materials

Climate Change – linked to Everything Changes Project (Autumn 2), ongoing application of other material in Science and other subjects  
Biodiversity – RS Partnership project, & Chiltern Rangers - ongoing fieldwork