



## Science

### Intent:

- Plan for a broad and balanced Science curriculum that is creative and engaging, where children develop a love and curiosity for science:
  - understanding skills for scientific enquiry and
  - scientific knowledge.
- Planning teaches skills, knowledge and vocabulary
  - (shown in our progression of skills)
- Each unit is a journey that builds skills and knowledge – this is reflected in planning and lessons being delivered.
- LTP and MP build on skills and knowledge gained in previous years and allows pupils to learn new skill and make progress
- Planning is adapted to ensure that the work is accessible to all
  - Information broken down into chunks e.g. research
  - Enquiry sheets – with word banks included, STEM sentences provided
- Review prior knowledge with mind maps at the start of unit to identify prior knowledge- units build on prior knowledge
- Spaced learning happens throughout a science unit with reviews of learning from the week before and then at the end of an unit children complete their mind maps and list out what they have learnt during the course of an unit.

### IMPLEMENTATION

- Teaching and learning builds on previous skills to ensure children are developing knowledge, skills and vocabulary .
  - Mindmap at start of unit – what children know already/ what they want to find out
- Units build up over a series of lessons
  - For example: solar system Year 5
  - Naming the planets
  - Facts about planets & understanding of size in relation to Earth/ the sun
  - Research skills around how beliefs about solar system have developed over time
  - Understanding of heliocentric/ geocentric models



- Day & night analysis; seasons analysis and time zones
- Creating sun dials
- School science trip: e.g. Winchester science museum
  
- Science trips:
  - Year 3 – Butser Farm- rocks and soils: how chalk and clay used
  - Year 4 – trips to Wisley & Sayers Croft- habitats
  - Year 5 – Winchester science museum- planetarium
  - Year 6- Charterhouse school –science investigations
  
- Lessons are engaging and often cross curricular e.g. maths, research skills (English)
  - For example – presenting & analysing data
- Children are able to articulate what they are learning and give an opinion on what they are learning.
- Teaching is practical, through the use of equipment and visuals to support learning of new material.
- Planning takes the needs of all pupils into account.
- The needs of pupils with SEND are taken into consideration and planning and resources are adapted accordingly.
  
- Work displayed: incorporates the skills children have been learning and progress across the school

#### Other:

- Double day: Problem solving and Moon landing raised profile of science.
- Double day: health & safety-science linked activities: first aid; analysing carbon footprint
- Beach day- science activity- linked to plastic & pollution; habitats
- Entered Primary Engineers award:
  - Participation across the whole school
  - Success in competition
  - Children presented work in assembly



**Impact:**

Regular monitoring is carried out including: pupil voice, work scrutiny, successes and feedback, talking to staff, learning walks and drop ins. Monitoring of SEND children achievements. Displays.

The children are assessed continually throughout the year, with the teacher giving feedback verbally in the lesson and giving next steps.

Skills are assessed at the end of a unit – and then reviewed by class teacher and then acted on accordingly. These are shared with parents in the end of year report.