End of Year Expectations
SCIENCE
Year 4

Spiritual Development
- Science and spiritual ideas do cause conflict but in a modern society it is important to understand why these conflicts arise so we can respect the views of others and move forward.
- Involves the search for meaning and purpose in natural and physical phenomena
- Reflect on the wonder on the natural world.
- Sense of enjoyment and fascination in learning about themselves, others and the world around them.
- Willingness to reflect on their experiences.

Moral Development
- Pupils to become increasingly curious
- To develop open mindedness to the suggestions of others and to make judgments on evidence not prejudice
- Scientific developments may give rise to moral dilemmas
- Consider the environment recycling- plastic
- Sustainability- planting

Social Development
- Scientists are collaborators. Sharing ideas, data, and results for further testing and development by others.
- We encourage pupils to work together on scientific investigations and to share results to improve reliability.
- Group and practical work
- Taking responsibility for their own and other people's safety.
- Pupils consider the social impact, both positive and negative, of science and technology.
- Pupils are willing to participate within the community at Maths and Science quiz.

Cultural Development

To understand that scientific development comes from all across the world, from people of all backgrounds and cultures.
- Celebration of current events- linked to scientists
- Visitors in school – recycling, science workshops
- To understand important discoveries come from other parts of the world.

SEN

To overcome potential barriers to learning in Science some pupils may need:
- inclusive learning environment- Scientific language on displays,
- Knowledge organisers
- help in managing the written communication or reading a text
- a multisensory approach- practical work
- access to adapted resources to overcome difficulties with mobility or manipulative skills.

CAREERS

Chemist, Food scientist technician, marine Biologist, Teacher, Vet, Doctor, Mechanical Engineer ,Pharmacist,

MATHS

Data handling- tally charts, bar charts
Reading scales- thermometers (States of Matter)
Time -
Measuring- distance linked to sound Metre rules/tape measure
Interpreting data-
Using measuring jugs- scale
Mathematical facts and units of measurement
Carroll diagrams sorting animals and plants

LITERACY

- Speaking and listening, questioning, discussion, predicting, observing,
- Reading scientific texts- scientists. Explore science 'News@ websites
- Biographies- research and create biographies of the scientists or inventors for year group,
  create character profiles or interview the scientists through hot seating.
- Explanation Text- explain how or why something works within a science investigation.
- Researching facts using resources.
- Read and write facts and observations
- Write simple investigations and conclusions- consider features of instructions (imperative
  verbs)
- Learning and using scientific language and key words linked to themes
- Using descriptive language about animals and plants
- Observe and describe- scientific reactions
- Linking science through stories - The Iron Man is the perfect story to explain how magnets attract or repel each other and attract some material and not others.

COLLABORATION

Community events- Laceby In Bloom
Trips/visits-
Hook Days- Nature Area
Learning Shares/Class assemblies
Collaboration and Peer work- outdoor learning planting seasonal.
Science week- Investigations, scientists