

## Science Curriculum

<b>Intent</b>	<p>Our intent is to provide a science education that is engaging, challenging, and relevant to the lives of our young learners. We want them to develop a love of science and a sense of wonder about the world around them linking to our key value of curiosity. We also want them to acquire the knowledge and skills they need to be successful in science and in life.</p> <p>Specifically, we intend for our pupils to:</p> <ul style="list-style-type: none"><li>• Develop a strong foundation in the key concepts of science, such as the properties of matter, and the structure of living things.</li><li>• Learn to think critically and solve problems using scientific methods.</li><li>• Become proficient in using scientific tools and equipment.</li><li>• Communicate their scientific findings clearly and effectively.</li><li>• Develop a positive attitude towards science and a willingness to explore and learn.</li></ul> <p>In early years good science learning is all about fostering a love of science and a sense of wonder about the world around them.</p> <p>By the end of the early years, we want our pupils to be able to:</p> <ul style="list-style-type: none"><li>• Observe and describe the world around them.</li><li>• Ask questions about the world around them.</li><li>• Experiment and explore.</li><li>• Communicate their ideas about science.</li><li>• Work collaboratively on science projects.</li><li>• Develop an appreciation for the natural world.</li></ul>
<b>Implementation</b>	<p>We will implement our science curriculum through a variety of hands-on, inquiry-based activities. We will provide pupils with opportunities to explore the natural world, conduct experiments, and make observations. We will also use a variety of resources, manipulatives, and technology, to support pupil learning.</p>

- Inquiry-based learning: We will implement our science curriculum through a variety of inquiry-based activities that allow pupils to ask questions, explore their surroundings. This will help them develop their critical thinking skills and a deeper understanding of the world around them.
- Hands-on experiences: We will provide pupils with plenty of opportunities for hands-on experiences with science. This will help them learn by doing and make the material more memorable.
- Collaborative learning: We will encourage pupils to work collaboratively on science projects. This will help them develop their teamwork and problem-solving skills.
- Use of technology: We will use technology to support our science instruction, such as using digital microscopes to explore the natural world or using virtual reality to experience different environments.
- Assessment: We will assess pupils' progress throughout the year using a variety of methods, such as observations, quizzes, and projects. This will help us ensure that they are meeting the learning objectives. We will also provide pupils with a range of ways to communicate their scientific findings. This could involve writing reports, giving presentations, or creating posters.
- In the early years, we will focus on developing pupils' curiosity and exploration skills. We will provide them with opportunities to explore the natural world through hands-on activities, such as collecting leaves, observing insects, and planting seeds.

In addition to these key principles, to ensure a high quality science education at Newtown we will:

- Provide teachers with professional development in science education: Teachers need to be well-trained in science education in order to implement it effectively. This training covers the principles of inquiry-based learning, hands-on experiences, and collaborative learning.
- Create a supportive school culture for science: The school culture is supportive of science learning as seen in our values of curiosity and courage. This also means that teachers and parents all value science and encourage pupils to learn about it.

	<ul style="list-style-type: none"> <li>• Provide pupils with access to resources: Pupils have access to the resources they need to learn science. This includes books, manipulatives, and technology.</li> <li>• Make science relevant to pupils' lives: Science should be relevant to pupils' lives. This means finding ways to connect science concepts to pupils' interests and experiences.</li> </ul>
<b>Impact</b>	<p>By the time children leave Newtown School they will be able to:</p> <p>We believe that our science education will have a positive impact on our pupils in a number of ways. They will develop a deeper understanding of the world around them, and they will be better prepared to succeed in science and in other academic subjects. They will also develop critical thinking and problem-solving skills that will be essential for success in their future careers.</p> <p>In addition, our science education will help to foster a love of learning and a sense of wonder about the world. Our pupils will be more likely to be curious and inquisitive, and they will be more likely to pursue careers in science and other STEM fields.</p> <p>We are confident that our science education will provide our pupils with the knowledge, skills, and attitudes they need to be successful in science and in life.</p> <p>We believe that our curriculum will help our pupils develop a love of science and a strong foundation in the key concepts of science. They will also help our pupils develop the skills they need to be successful in science and in life.</p>