Curriculum Intent

Science

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| **Intent**  The Seagrave science curriculum provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world’s future prosperity, and all children should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, children are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. | | | | |
|  | **EYFS** | **Year 1/2** | **Year 3/4** | **Year 5/6** |
| **Autumn 1** | They know that other children don’t always enjoy the same things, and are sensitive to this. They know about similarities and differences between themselves and others, and among families, communities and traditions. | Please see NC PoS  Yr1 - Animals including humans  Yr2 – Living things and their habitats  Animals including humans | Please see NC PoS  Yr 3 – Light  Yr 3 and 4 – Working Scientifically | Please see NC PoS  Yr 5 – Earth and space  Yr 6 – Evolution and inheritance |
| **Implementation (first stage)**  **CYCLE A** | Bodies and health | Animals and humans | Light | Earth and space |
| **Implementation (first stage)**  **CYCLE B** | Adaptation  Categorising animals | Shadow puppets  Investigations – light  Linked to colour wheels and prisms | Inheritance and evolution Enlightenment Era  Linked to Buddism |
| **Autumn 2** | Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | Please see NC PoS  Yr1 – Plants  Yr2 – Plants  Living things and their habitats | Please see NC PoS  Yr 3 – Rocks  Yr 4 - Electricity | Please see NC PoS  Yr 6 – Evolution and inheritance  Living things and their habitats  Yr 5 - Living things and their habitats |
| **Implementation (first stage)**  **CYCLE A** | Animals  Habitats  Light and dark | Food chains  Living things | Rocks | Living things |
| **Implementation (first stage)**  **CYCLE B** |  | Habitats | Electricity | Inheritance and evolution |
| **Spring 1** | Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | Please see NC PoS  Yr 1 – everyday materials  Yr 2 – Uses of everyday materials  Yr 1 and 2 – Working scientifically | Please see NC PoS  Yr 3 – Forces and magnets  Yr 4 – states of matter  Yr 3 and 4 – Working Scientifically | Please see NC PoS  Yr 5 and 6 – Working Scientifically  Yr 6 – Evolution and inheritance |
| **Implementation (first stage)**  **CYCLE A** | Materials | Materials  What is the best material for… investigations | Forces and magnets | Investigative science (Mad science)   * Fair test |
| **Implementation (first stage)**  **CYCLE B** | Materials  Including reversible and irreversible changes | Science Inventors   * Tools * Energy * Music * Sound * States of matter | Investigative science (Mad science)   * DNA * Primates/ancestory * Fair test * Scientific reports |
| **Spring 2** | Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | Please see NC PoS  Yr1 – Plants  Seasonal Changes  Yr 2 - Yr2 – Plants  Living things and their habitats  Yr 1 and 2 – Working scientifically | Please see NC PoS  Yr 3 – plants  Yr 4 – States of matter | Please see NC PoS  Yr 6 – Light  Electricity  Yr 5 - Forces |
| **Implementation (first stage)**  **CYCLE A** | Fantastic creatures – forces  Flight and movement  Life cycles | Plants  Seasonal changes | States of matter | Forces and motion   * Scientific data * Diagrams * Reports * Maths link |
| **Implementation (first stage)**  **CYCLE B** | Investigations – heat/fire | Plants | Electricity and light   * Scientific data * Diagrams * Reports * Maths link |
| **Summer 1** | Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | Please see NC PoS  Yr 1 – animals including humans  Yr 2 - animals including humans | Please see NC PoS  Yr 3 and 4 – Working Scientifically  Yr 3 – Animals, including humans  Yr 4 – living things and their habitats  Animals, including humnas | Please see NC PoS  Yr 5 and 6 – Working Scientifically  Yr 5 – properties and changes of materials |
| **Implementation (first stage)**  **CYCLE A** | Life cycles  In my garden – growth and decay | Living things | Living things  Habitats  Animals  Ourselves | Working scientifically  Materials |
| **Implementation (first stage)**  **CYCLE B** | Our bodies  SRE link | Working scientifically  Local environment  Forest School Link | Working scientifically  Filtering and separating – links to rivers, erosion |
| **Summer 2** | Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | Please see NC PoS  Yr 1 and 2 – Working scientifically  Yr 1 – plants  Yr 2 – Plants | Please see NC PoS  Yr 3 and 4 – Working Scientifically  Yr 4 – Sound | Please see NC PoS  Yr 5 – Animals, including humans  Yr 6 - Animals, including humans |
| **Implementation (first stage)**  **CYCLE A** | Seaside summer  Floating and sinking | Science outdoors – trees, plants and the world around us  Forest school link | Sound | Circulatory system  Human body – changes  SRE links |
| **Implementation (first stage)**  **CYCLE B** | Water World  Water-based science investigations | Science investigations and creating scientific reports | Human body – changes  SRE links |
| **Impact**  Progress against the learning intentions will be mapped and monitored through teacher assessment into the statement section of Target Tracker.  The science curriculum leader will monitor the effectiveness of the curriculum through pupil interviews and work scrutiny. | | | | |