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 PoSYr1 - Animals including humansYr2 – Living things and their habitatsAnimals including humans | Please see NC PoSYr 3 – LightYr 3 and 4 – Working Scientifically  | Please see NC PoSYr 5 – Earth and spaceYr 6 – Evolution and inheritance |
| **Implementation (first stage)****CYCLE A** | Bodies and health | Animals and humans  | Light  | Earth and space  |
| **Implementation (first stage)****CYCLE B** | AdaptationCategorising animals | Shadow puppetsInvestigations – lightLinked to colour wheels and prisms  | Inheritance and evolution Enlightenment EraLinked 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 PoSYr1 – Plants Yr2 – PlantsLiving things and their habitats | Please see NC PoSYr 3 – RocksYr 4 - Electricity | Please see NC PoSYr 6 – Evolution and inheritanceLiving things and their habitatsYr 5 - Living things and their habitats |
| **Implementation (first stage)****CYCLE A** | AnimalsHabitatsLight 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 PoSYr 1 – everyday materialsYr 2 – Uses of everyday materials Yr 1 and 2 – Working scientifically | Please see NC PoSYr 3 – Forces and magnetsYr 4 – states of matterYr 3 and 4 – Working Scientifically  | Please see NC PoSYr 5 and 6 – Working ScientificallyYr 6 – Evolution and inheritance  |
| **Implementation (first stage)****CYCLE A** | Materials | MaterialsWhat is the best material for… investigations | Forces and magnets | Investigative science (Mad science)* Fair test
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| **Implementation (first stage)****CYCLE B** | MaterialsIncluding reversible and irreversible changes | Science Inventors* Tools
* Energy
* Music
* Sound
* States of matter
 | Investigative science (Mad science)* DNA
* Primates/ancestory
* Fair test
* Scientific reports
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| **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 PoSYr1 – Plants Seasonal ChangesYr 2 - Yr2 – PlantsLiving things and their habitatsYr 1 and 2 – Working scientifically | Please see NC PoSYr 3 – plants Yr 4 – States of matter | Please see NC PoSYr 6 – LightElectricityYr 5 - Forces |
| **Implementation (first stage)****CYCLE A** | Fantastic creatures – forcesFlight and movementLife cycles | PlantsSeasonal changes | States of matter | Forces and motion* Scientific data
* Diagrams
* Reports
* Maths link
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| **Implementation (first stage)****CYCLE B** | Investigations – heat/fire | Plants  | Electricity and light* Scientific data
* Diagrams
* Reports
* Maths link
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| **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 PoSYr 1 – animals including humansYr 2 - animals including humans | Please see NC PoSYr 3 and 4 – Working ScientificallyYr 3 – Animals, including humans Yr 4 – living things and their habitatsAnimals, including humnas | Please see NC PoSYr 5 and 6 – Working ScientificallyYr 5 – properties and changes of materials  |
| **Implementation (first stage)****CYCLE A** | Life cyclesIn my garden – growth and decay | Living things | Living thingsHabitatsAnimalsOurselves  | Working scientifically Materials  |
| **Implementation (first stage)****CYCLE B** | Our bodiesSRE 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 PoSYr 1 and 2 – Working scientificallyYr 1 – plantsYr 2 – Plants  | Please see NC PoSYr 3 and 4 – Working Scientifically Yr 4 – Sound | Please see NC PoS Yr 5 – Animals, including humansYr 6 - Animals, including humans |
| **Implementation (first stage)****CYCLE A** | Seaside summerFloating and sinking | Science outdoors – trees, plants and the world around usForest school link | Sound  | Circulatory systemHuman body – changesSRE links |
| **Implementation (first stage)****CYCLE B** | Water WorldWater-based science investigations | Science investigations and creating scientific reports | Human body – changesSRE 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. |