

## Windlesham Village Infant School; Science Subject report 2019

### Curriculum Intent

Characteristics of effective learning; by the end of Yr R we aim for all children to be able to:

Show curiosity about objects & events; use their senses to explore the world around them; engage in open-ended activity; think of ideas; find ways to solve problems; find ways to do new things; make links and notice patters in their experience; make predictions; test their ideas; develop ideas of grouping, sequences, cause and effect; be willing to 'have a go'; take a risk, engage in new experiences and learn by trial and error; plan, make decisions about how to approach a task, solve a problem and reach a goal; check how well their activities are going; change strategy as needed; review how well the approach worked.

Through our Science teaching we will offer opportunities for children to:

- Develop their knowledge and understanding of the world relating to fundamental scientific ideas, processes and skills, relating these to their everyday experiences
- Learn through practical activities
- Be curious about the world around them, asking questions, making observations, classifying and sorting
- Develop a simple scientific vocabulary

### Curriculum Implementation-Overview of topics:

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Yr R	Ourselves Autumn	Ourselves Autumn	Similarities and differences		Plants	Mini-beasts
	Health & hygiene					
Yr 1	Animals incl. humans Seasons	Animals incl. humans Seasons	Materials Seasons	Plants Seasons	The human body incl. senses Seasons	Health & hygiene Seasons
Yr 2	Living things & their habitats	Materials	Materials	Plants	Animals including Humans. Food chains & life cycles	Animals including humans.Living things and their habitats Health & hygiene

### Progression

Please see Appendix

### Focus of development this academic year:

- Regular use of our copse/outside areas, predominantly through Forest School, to encourage the children to experience and learn about the change of seasons and weather in the copse throughout the year; Identifying common plants and trees and their basic structures
- Use of our grounds to develop teaching and learning of science
- Providing challenge for our more able pupils with open-ended questioning
- Link with PSHE: Working with Parent Forum to explain how and what we teach regarding naming body parts (external genitalia) and how parents/carers would consider responding to FAQs relating to our bodies, for example

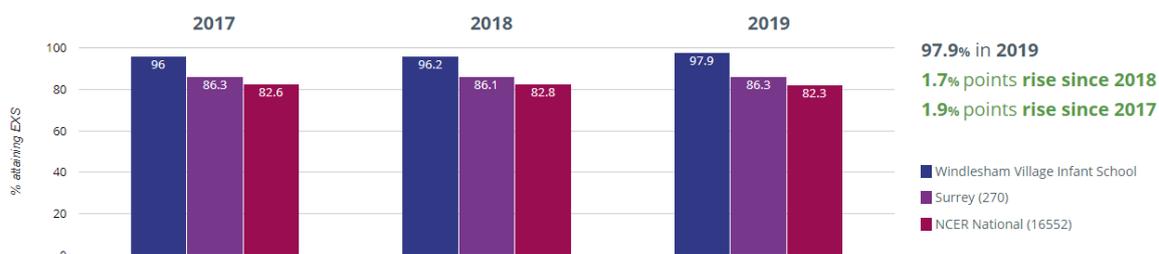
### Curriculum Impact

In 2019, at the end of the Early Years Foundation Stage, 100% pupils achieved ELG The World; 81% met the Expected standard and 19% Exceeded.

Working scientifically by end of KS1; we now use Scholar Pack to record our assessments.

In 2019, 98% Yr 2 pupils met end-of Key Stage 1 expectations; 1 pupil did not meet them. Here is the trend of our results in Science over the last 3 years.

#### Science - attaining EXS



The Subject Leader monitors at least one lesson per year group per term; this is followed by a pupil conference, so that a child can talk about their learning in Science.

### How does Science further develop Social, Moral, Spiritual, Cultural values in school?

Health and hygiene

Caring for the world-all living things

Fair testing-what is fair?

Similarities and differences

Science and RE: creation, for example

Enjoying nature

Respect and tolerance-including respecting others' ideas

Figuring out your place in the world

## Appendix: Windlesham Village Infant School: progression in Science; sticky knowledge in **bold**

### Working Scientifically

Year 1	Year 2
<ul style="list-style-type: none"> <li>• <b>Ask simple questions</b> and recognise that they can be answered in different ways</li> <li>• <b>Use simple equipment to observe closely</b></li> <li>• <b>Perform simple tests</b></li> <li>• <b>Identify and classify</b></li> <li>• <b>Use his/her observations and ideas to suggest answers to questions</b></li> <li>• Gather and record data to help in answering questions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Ask simple questions</b> and recognise that they can be answered in different ways <b>including use of scientific language</b> from the national curriculum</li> <li>• <b>Use simple equipment to observe closely including changes over time</b></li> <li>• Perform simple comparative tests</li> <li>• <b>Identify, group and classify</b></li> <li>• <b>Use his/her observations and ideas to suggest answers to questions noticing similarities, differences and patterns</b></li> <li>• Gather and record data to help in answering questions including from secondary sources of information</li> </ul>

### Animals including humans

Year 1	Year 2
<ul style="list-style-type: none"> <li>• <b>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</b></li> <li>• Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>• Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</li> <li>• <b>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Understand that animals, including humans, have offspring which grow into adults</b></li> <li>• <b>Describe the basic needs of animals, including humans, for survival (water, food and air)</b></li> <li>• <b>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</b></li> </ul>

### Living things and their habitats

Year 1	Year 2
	<ul style="list-style-type: none"> <li>• <b>Explore and compare the differences between things that are living, dead, and things that have never been alive</b></li> <li>• <b>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</b></li> <li>• Identify and name a variety of plants and animals in their habitats, including micro-habitats</li> <li>• <b>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</b></li> </ul>

## Plants

Year 1	Year 2
<ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees</li> </ul>	<ul style="list-style-type: none"> <li>Observe and describe how seeds and bulbs grow into mature plants</li> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>

## Seasonal Changes

Year 1	Year 2
<ul style="list-style-type: none"> <li>Observe changes across the four seasons</li> <li>Observe and describe weather associated with the seasons and how day length varies</li> </ul>	<i>Continued observations in Forest School</i>

## Materials and States of Matter

Year 1	Year 2
<ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made</li> <li>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>Describe the simple physical properties of a variety of everyday materials</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties</li> </ul>	<ul style="list-style-type: none"> <li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</li> </ul>