BEECHWOOD PRIMARY SCHOOL – LONG TERM PLAN SCIENCE

Intent

At Beechwood Primary School, intend to provide learning opportunities in Science which encourage children to:

- ask relevant questions and use these to plan scientific enquiries, recognising and controlling variables where necessary;
- set up practical enquiries safely, using appropriate techniques, apparatus and materials during both fieldwork and class work;
- gather, record, classify and present data in a variety of ways, using a range of scientific equipment of increasing complexity;
- become 'scientific thinkers' by developing attitudes of curiosity, co-operation, perseverance, responsibility and independence;
- use the data gathered to make sense of evidence, test out hypothesis, find patterns in observations and evaluate processes and outcomes;
- use systematic and logical reasoning, solve problems and communicate their findings;
- develop understanding on how their actions effect the environment around them;
- develop the skills to work in a variety of ways including, working together in groups, independently, in partners and as a whole class;
- have an enjoyable experience of science so that they will develop a deep and lasting interest and become inspired to follow this path further

Each topic starts with a pre-learning task, allowing staff to see what children already know, what they are interested to learn and what misconceptions they have. Activities are the planned, weaving the RESPECT values throughout each session. Learning Challenges are introduced in most sessions, encouraging children to take an active role in their learning, but also to help learning becoming sticky!

	Autumn 1		Autumn 2	Spring 1	Spring 2		Summer 1	Summer 2	
Year 1	**Materials** Why aren't all objects made from the same material?	**Seasons** How does the weather change through out the year?	**Animals including Humans** How are humans and animals similar?		**Seasons** How does the weather change through out the year?	**Plants** Which plants and trees would we find in our school grounds?	**Seasons** How does the weather change throughout the year?	**Seasons** How does the weather change throughout the year?	Working scientifically
Year 2	**Animals including Humans** Do all animals need the same things to survive?			**Living Things and their Habitats** How are living things suited to the habitat in which they live?			**Plants** Can plants grow on beaches?	**Materials** What materials do we use in our everyday lives and how can these be changed?	
Year 3	**Rocks** What do rocks tell us about the way the Earth is formed?		**Animals including Humans**	**Plants** What makes plants and flowers grow and flourish?	**Forces and Magnets** How are magnets useful in our everyday lives?		**Light** Why are shadows different shapes and sizes?	Working scientifically	

		How can Usain Bolt move so quickly?				
Year 4	**Living Things and their Habitats** Are all living things the same?	**Animals including Humans** What happens to the food we eat?	**Sound** How do vibrations help us to hear?	**States of Matter** How can water be in 3 different states?	**Electricity** How does electricity work?	Working scientifically
Year 5	**Space** Is the Earth the centre of the Solar System?	**Forces** How the forces around us affect our everyday lives?	**Materials** What are the properties of materials and how can we change their state?		**Animals including Humans** Do all animals and plants start life as an egg?	Working scientifically
Year 6	**Light** How does light help us to see?	**Animals including Humans** What would a journey through your body look like?	**Evolution and Inheritance** Have we always looked like this?	**Electricity** How can we harness electricity?	**Living Things and their Habitats** Could Spiderman really exist?	*Working Scientifically*