Dean Field
Community Primary School

Science Cultural Capital

"As part of making the judgement about the quality of education, inspectors will consider the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life. Our understanding of 'knowledge and cultural capital' is derived from the following wording in the national curriculum: 'It is the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.'"

(Ofsted School Inspection Handbook, Nov 2019)

Cultural Capital is the accumulation of knowledge, behaviours and skills that a student can draw upon and which demonstrates their cultural awareness, knowledge and competence. It is one of the key ingredients a student will draw upon to be successful in society, at secondary school and further education and eventually their career and the world of work.

At Dean Field we enhance children's experiences and learning by utilising different opportunities in our Science curriculum and around school and within our wider community.

We provide engaging Science lessons weekly whilst teaching the National Curriculum topics to develop their working scientifically skills. We encourage children to extend their vocabulary within Science. We also plan various experiences to develop their skills to prepare them for the real world. We take advantage of any opportunities to visit our local community or wider community to see what is happening around us, with adults modelling and encouraging the right social, language and behavioural skills.

Within this we also demonstrate and encourage our school values and responsibilities through assemblies and class, whole-school or community projects.

Where possible, we invite our parents and carers in to join us to participate in Science activities, modelling to them behaviours we want to promote in our school and community and sharing ideas with them on how this can be supported at home too.

Whole School

Science Week

The whole school have worked like scientists to learn more about this year's science theme 'Our Diverse Planet'. We discussed the world around us including diverse people and places.

Fundraising

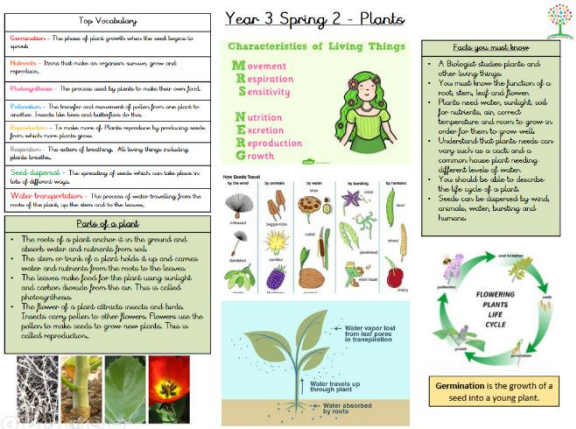
We raised money for WWF to support our planet. We raised a fantastic £82.35.

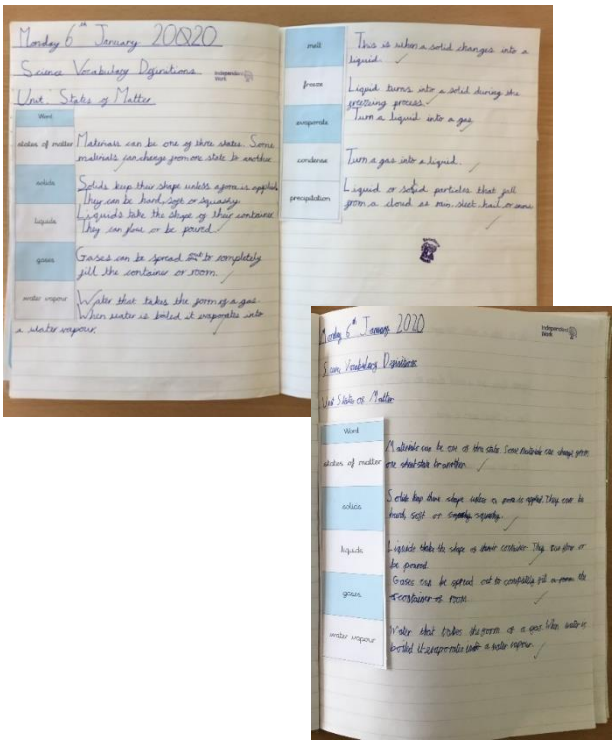
Virtual Mad Science Workshop

The whole school had a live virtual assembly from Mad Science. We joined them as a school via Zoom and took part in some experiments! We learnt about chemical reactions, the scientist Jack Charles and air pressure. We worked scientifically by closely observing what the Mad Scientists were doing and making predictions about the investigations.

Must Knows

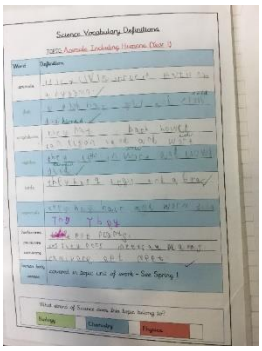
The whole school start each topic with a copy of the must knows shown below. They include the vocabulary to be learnt and the key teaching. They use them every lesson to discuss prior learning and future learning as a working document. At the end of each topic they will be assessed on these must knows to see how much they know.

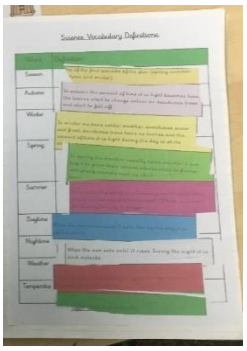




Vocabulary Dictation

The whole school start each new science topic with selected key vocabulary the children need to know and we ask them to write the definitions as we dictate them. We differentiate this task throughout school as you can see below.





Nursery

In Nursery, we planted our own beanstalks and watched them grow. We discussed how plants need water and sun to grow.

In nursery, we looked after our very own caterpillars. We watched them change and grow over a period of time. The children showed care and concern for living things.

In nursery, we visited Ogden Waters for a woodland walk. We discussed the seasons and different types of living things.

In nursery, we made ice pops and discussed how they were frozen. We could name other things that might be frozen and how to freeze things.

Reception

In reception, we used the mirrors outside to talk about why they are different and what makes them look different.

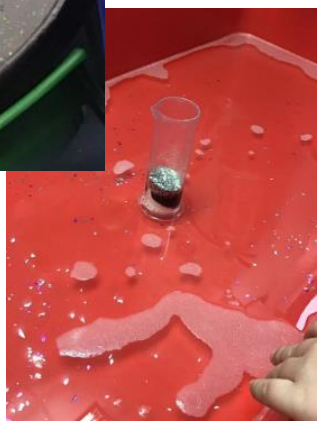
In reception, we made our very own calendars. We have based these on the different seasons, we talked about the different things that happen in each season.

In reception, we looked at Autumn and Winter and the changes in our surroundings. We explored ice and why ice forms and melts. Then we talked about how snow is formed.

We do this on our local walks in the area too.

In reception, we showed an interest in mini beasts so we used magnifying glasses to hunt for mini beasts.

In reception for healthy living day, we discussed the dentist set and talked about what things make us healthy including making fruit kebabs.



In reception, we carried out a space experiment. We used bicarbonate of soda, glitter, colouring and vinegar to explore the stars and the night sky. We used vocabulary such as 'Fizzing, experiment and bubbling'.

Year 1

In year 1, we visited Beechwood park looking at the tress we were able to identify Evergreen and Deciduous trees.

In year 1, we completed an experiment to see which material would be the best to use to make an umbrella.

In year 1, we recorded ourselves informing people of the weather in England.

Year 2

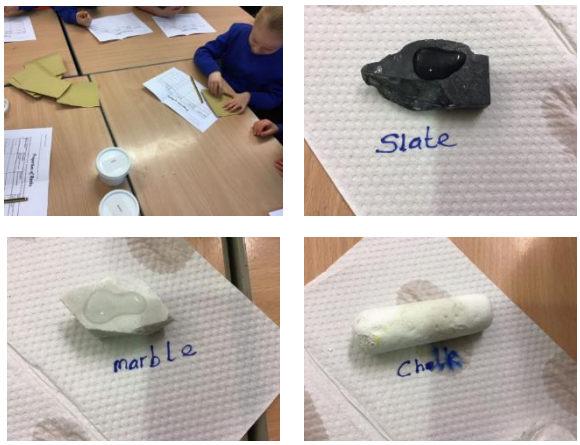
In year 2, we looked after some eggs and kept them safe until they were ready to hatch into chicks.

In year 2, we enjoyed doing a glitter bug experiment.

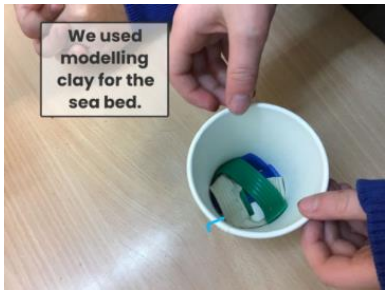
In year 2, we made bird feeders linking to our topic living things and discussing endangered species.

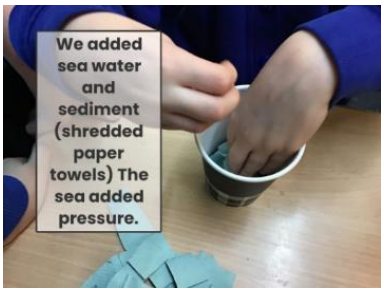
Year 3

In year 3, we have been investigating the properties of different igneous, sedimentary and metamorphic rocks.



In year 3, we replicated the fossilisation process and sped this up by a few million years.





In year 3, we used magnets to test which poles repel and which poles attract.

In year 3, we carried out a scientific investigation to investigate how shadows change depending on the distance between the object and the light source.

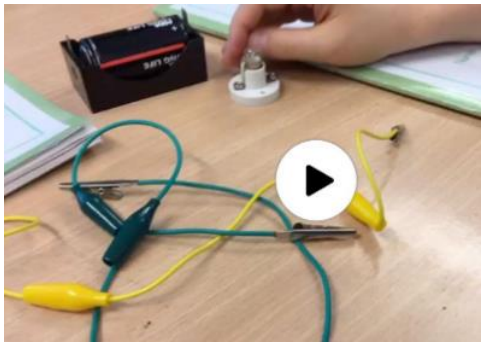
Year 4

In year 4, we conducted a scientific experiment to observe the effects that different drinks have on the enamel on our teeth. They used boiled eggs to do this as the hard shell on the egg has similar properties to the enamel coating on our teeth.

In year 4, we visited the Science and Media Museum to support their learning on 'light.' We took part in a workshop where we learnt about the importance of light when using cameras and how we can use refraction to see small things like bacteria.

Year 5

In year 5, we created circuits and tested them. We recorded ourselves using different



In year 5, we visited Headingley Water Treatment Works to see the water process and how it is cleaned before re-used.

In year 5, we enjoyed a visit from a scientist through zoom. They asked her lots of questions in relation to their topic on Materials.

Year 6

In year 6, we identified different fossils and compared them to their living relative.

In year 6, we observed the life cycle of a butterfly and dissected lilies as part of their year 5 topic they were learning about.