Articles for the Blanchelande College weekly newsletter relating to the Y6 Signature Work inquiry (names and images removed)

20.10.23 Year 6 'Bringing Home the Bronze'

Christopher Edge, the author of *The Infinite Lives of Maisie Day* makes the point that 'science and stories both help us to make sense of the world.' Making sense of the world is the purpose of inquiry in general, and helping to make sense of the world through science-rich fiction is the particular purpose of the story of Maisie Day, which Year 6 students have just started reading in English. Over the course of the Michaelmas term, reading science-rich fiction will lead into reading scientific non-fiction as pupils explore topics raised by the story of Maisie Day, such as the age and size of the universe, blackholes, and wormholes connecting blackholes...or not. The Hilary Term will see an exciting collaboration between Art & Design, English, ICT, the Library, Mathematics and Science that will culminate in a STREAM* Fair in the Trinity Term. Now while we might not be able to 'Bring Home the **Gold**' in this particular instance, we are aiming for all pupils to 'Bring Home the **Bronze**' in the form of a <u>Bronze CREST Award</u> (Typical age: 11+), which is a scheme for introducing children to STEM project-work that is managed by the <u>British Science</u> <u>Association</u>.

*Science, Technology, Engineering, Mathematics + Arts + Reading and wRiting

09.12.22 Signature Work Inquiries

This week was a significant week in both the Year 6 and Year 9 Signature Work Inquiries. Year 6 pupils have spent time in English reading the wonderfully science-rich fiction of *The Infinite Lives of Maisie Day*, by Christopher Edge, which, without giving the plot away, posits that in an infinite universe there are an infinite number of Maisies, hence the title. Students then spent time reading scientific non-fiction on a topic from the book that had captured their attention.

Of particular interest to us from the perspective of the Signature Work Inquiry next term, is the insight that the book gives us into the purpose and method of science, which is an inquiry process. As Maisie's reality mysteriously begins to distort, she, like all good scientists, seeks to establish what exists and what it does by testing and re-testing to confirm her perceptions. This will stand pupils in good stead next term as they begin their science-based inquiry into heat transfer/ insulation, which will include interdisciplinary work in Mathematics, Art with embedded Design Technology, English and ICT. In addition to our celebration of Year 6 Signature Work Inquiry towards the end of the year, we are also intending for their work to lead to a CREST Award, which is a scheme managed by the British Science Association.

13.01.23 Year 6 Signature Work

We all agree that drinking water is good for us, and that single use plastics are bad for the environment. For their *Cool Water* Signature Work inquiry, which spans English, Science, Maths, Art and ICT this term, Y6 are exploring how to make their reusable water bottles cooler in more ways than one by investigating, designing and making beautiful and practical insulating covers for them. We started the week by melting snowmen in the Y6 classroom - we even gave one snowman a lovely coat. What effect do you think that had on the rate at which it melted? Y6 were very surprised! We ended it in the Science lab, designing a fair experiment to test which materials would make the most effective water bottle cover to keep

their water cool. We are so excited by this inaugural interdisciplinary Y6 Signature Work inquiry, which will result in:

- a <u>CREST Bronze Award</u>^{*} for all of Y6;
- their own unique water bottle covers; and
- a wealth of new knowledge, understanding and both subject specific and inquiry skills, across a wide range of subjects.

* Typically awarded to age 11⁺ students, so Y6 are ahead of the curve!

20.01.23 Year 6 staying out of hot water

Year 6 progressed to the second week of the Investigate stage of their Signature Work inquiry this week. In English, they explored how playing tag in the classroom (definitely not allowed!) could help them to understand why hot materials expand and used guided reading techniques to learn about heat transfer from book extracts, ready for their Science lessons. In Science 6MA began their pilot experiment while 6MB started testing different insulating materials to decide which might be best for keeping their water bottles cool. As they all become increasingly confident pouring boiling water safely, I hope they will be offering to make tea for you at home!

27.01.23 Year 6 scientists

From pretending to be vibrating atoms while modelling heat transfer and reading scientific writing carefully for information in English, to learning to be practical scientists conducting a careful investigation in Science, Year 6 have made great progress with their Signature Work this week. Their Science teacher has been impressed by their dexterity as they work with clamps and bosses and we have both noticed how their experimental skills have improved over the last couple of weeks. I was also particularly impressed this week with one student's prediction that hessian on its own wouldn't made a good insulating material because it had too many holes, but if it was covered with another material it could be a great insulator because there would be lots of trapped air. A really effective example of using the information the class have been reading in English to make an informed prediction in Science. This inter-disciplinary inquiry is certainly encouraging Year 6 to make connections between their subjects. Next stop, writing heat transfer poetry in English, designing and making water bottle covers in Art & Design and plotting graphs of their results from Science in Maths and ICT!

02.02.23 Interdisciplinarity in Y6

Year 6 have really launched themselves into the interdisciplinary phase of their Signature Work this week. M, E and S were the first to finish sewing their beautiful and useful water bottle covers in DT. 6MB completed their data collection in Science. In Maths, Year 6 have been practising graph plotting and interpretation, ready to plot their data from Science, and in English they have been writing heat transfer poetry. It is such a privilege to work in a team with these talented teachers to allow Year 6 to experience truly interdisciplinary learning.

16.02.23 Year 6 Signature Work Inquiry

Year 6 are justifiably proud of the amazing and unique water bottle covers they are producing in Art and DT – huge thanks to their teachers for the wonderful work they are doing. In English, Year 6 have been working on their metacognitive skills and reflecting on their progress so far. Reflection is a challenging skill, but so important to cement learning – after all '[w]e do not learn from experience... we learn from reflecting on experience.' (John Dewey). I was impressed by how seriously Year 6 took their reflections, explaining what they had learnt about fair testing, using scientific apparatus, working together and plotting graphs.

Our next step will be to decide how to spread the message about reducing the use of single use plastics, and the importance of drinking water, around the school. Then in the summer term we will have an exhibition of all of their wonderful work, complete with Science Fair style posters, leading to the CREST Bronze Awards.