

Corona-cation Project

WHAT TO DO:

- Due to COVID-19, we won't be having any more ECA's this block. Hopefully, we will continue in block 4, but either way, if you have time during this time off school, we thought it would be fun to get engaged in this project.
- We want you to make yourself a mini science project, or conduct a science experiment! You can choose any experiments online that are safe to do at home, and don't require intensive equipment. If you do not have any ideas, we have come up with some potential ideas you could explore.
- We would like you to make a short video of your experiment, or take photos of it. Then we would like you to either record yourself explaining the science behind your experiment. You can upload your videos or send your write ups to the shared doc here:
(https://drive.google.com/open?id=1gTF41QLx3TuMHO-oJbxtR_iJIDK3iZ51)
- IF YOU CAN: research your experiment before conducting it. Come up with a hypothesis (the technical prediction) of what you think will happen. Then conduct your experiment and explain your results. This is a good introduction to what scientists do when conducting their experiments :)
- Don't spend too much time on this as we are aware that you have school work to do. This is optional, but it would be a really fun way to keep engaged with science whilst off from school!
- Ensure you think about safety (ALWAYS ENSURE YOU HAVE PARENT SUPERVISION: if you are boiling something or if your experiment is expected to fizz etc. make sure you stay a safe distance away from it).
- Lastly, make sure you stay safe during this time! We hope to see you all soon!

PROMPTS:

- Creating a periscope, and the smartphone projector.
- (start off here, but google the science behind it
https://www.youtube.com/watch?v=FKL9_bdtHq0)
- “Oobleck:” a non-newtonian fluid
(start off here, <https://www.youtube.com/watch?v=Fnd-2jetT1w&t=1s>)
- Instant ice
- Paper Aeroplanes: which paper aeroplane design is the most aerodynamic and why
- Can you make a paper boat which can carry a lot of things on the water. Why are some designs better than others?
- Can you make a bridge using limited supplies like paper and straws? What will increase the strength of the bridge?
- Anti-bubbles (you will need to research this, a good video explaining this is here:
<https://www.youtube.com/watch?v=w5UMyck8D64>)
- Leidenfrost effect (Hint: you can witness this effect with a hot pan and water WARNING: parent supervision needed. You can research this online
<https://www.youtube.com/watch?v=9tIIWlGvkRc>)
- Coke mentos (Parent supervision needed)
- Milk and soap experiment
- Invisible Ink (Lemon juice)
- Baking things like you did with Lyela! Make sure you research the science behind all the steps
- Inverted balloon in a bottle
- Bending water
- Hot Ice
- Elephant Toothpaste (Watch this video! <https://www.youtube.com/watch?v=XXn4fP3CnJg>)
- Check out places like youtube (physics girl, Mark Rober, Micheal Reeves) or google to find other types of experiments you want to explore.

In addition to fun experiments, check out these Youtube Channels to learn more about science! If you can't think of any experiments that excite you, you can explore an interesting area of science and explain to us what you have learnt! Here are some channels you might want to watch: Kurtzegats, ASAP Science, Brainiac, Physics girl, Veritasium, Joe Scott, Real Engineering, It's ok to be smart, Minute physics, VSauce and Up & Atom and so many more