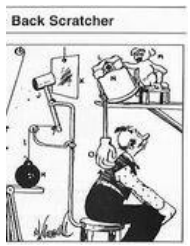
Year 5- Summer Term
Miss Lucas & Miss Vaughan

Science Tasks

Fabulous Forces

Choose **one** of the tasks to complete **each week**, you may decide to work through them in order or you may choose the one that excites you the most to complete first.

Share your learning via seesaw.

Task 1 ***What is a force?***	**Task 2** **What did these scientists discover?**	**Task 3** **Can you explore gravity at home?**	**Task 4** **Investigate air resistance.**
Research and complete an information page based on your findings. Focus on: • Gravity • Air resistance • Friction • Water resistance - What are these forces? - How do they work? Use bbc bitesize, forces and motion to help you: https://www.bbc.co.uk/bitesize/topics/znmmn39	**Who was Isaac Newton?** Create a fact file about Isaac Newton. • Who was he? • What did he discover? How? **Who was Galileo Galilei?** Create a fact file about Galileo. • Who was he? • What did he wonder/ investigate/ find out?	Consider first – What is gravity? Using this website: Explore and carry out the 3 gravity experiments and discuss. https://www.turtlediary.com/blogs/3-unique-gravity-experiments-to-try-with-your-kids.html • Paperclip Gravity Experiment • Gravity Water Drop • Galileo's Experiment	Consider first – what is air resistance? Carry out an investigation to design and test a parachute – what forces are acting on the parachute? https://www.sciencekids.co.nz/ experiments/freefall.html consider what happens when you: • Change the size of the parachute • Change the length of the string. • Change the shape of the parachute. How does this affect the amount of air resistance and the speed in which the parachute falls to the ground?
Task 8 **Become a machine designer**	**Task 7** **Explore mechanisms**	**Task 6** **Friction in action**	**Task 5** **Water resistance**
Design your own machine that uses many different mechanisms (levers, pulleys, gears) to achieve a simple aim. e.g. throws a ball, makes the bed, turns the lights off, runs a bath.  Draw your invention, clearly label and explain how it works.	What is a mechanism? Research: Levers, Pulleys, Gears - What are they? - Where are they used? - Draw and label examples of each. - Provide examples of objects that we use that include these. https://www.youtube.com/watch?v=lueqE0lxLyc https://www.youtube.com/watch?v=Nj4J7QNeBNk	Create a factual poster about friction. https://www.bbc.co.uk/bitesize/topics/zsxxsbk/articles/zxqrdxs https://www.ducksters.com/science/friction.php What is friction? Consider in our everyday life when friction is a **useful** force and times when it is **unhelpful**.	Consider first: What is water resistance? Watch: https://www.bbc.co.uk/bitesize/topics/zsxxsbk/articles/zxw6gdm Challenge: Using a piece of plasticine (blutac/salt dough/playdough). **Can you make it fall faster or slower, through water, just by changing its shape?** • Measure your fastest and slowest times remembering that each test needs to be fair! • Use stopwatch to time and then record each test. • Change the shape of your plasticine to speed up or slow down the rate of sinking even more! • Record your results in a table and explain your findings.