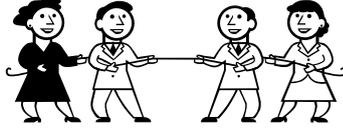


Year 5
AUTUMN TERM: Forces
Home Learning Log

Choose at least one English task, one maths task and one topic/science task from the table below. The tasks are ranked accordingly, from 1 star being the easiest level to 3 stars being the hardest. You can choose which level you complete. If you wish to, you could complete more than three tasks.

Star Ranking:	ENGLISH	MATHS	TOPIC/SCIENCE						
	<p>These two tug of war teams are both pulling on the rope. Neither team is moving. Explain why. Try to use the following words in your answer: force, pull and balanced.</p> 	<p>Forces can be pushes, pulls or twists or a combination of these. Copy and complete a table below to show as many different types of forces that you can think of.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 33%;">Pushes</th> <th style="width: 33%;">Pulls</th> <th style="width: 33%;">Twists</th> </tr> </thead> <tbody> <tr> <td>kicking a ball</td> <td></td> <td></td> </tr> </tbody> </table>	Pushes	Pulls	Twists	kicking a ball			<p>Find forces around your house, which have a lever, effort, load impact. Take photos or draw the examples. E.g. A wheel barrow in the garden.</p>
Pushes	Pulls	Twists							
kicking a ball									
	<p>Create your own multiple choice style quiz with questions regarding forces. Use key words:</p> <ul style="list-style-type: none"> • Force • Balanced • Unbalanced • Buoyancy • Resistance • Acceleration <p>Quizzes can be presented in homework books or using ICT skills.</p>	<p>Conduct an experiment to measure the distance a ball rolls.</p> <p>Roll a round ball on 3 different surface e.g. grass, tarmac etc. Record the distance that the ball travels and create a bar graph to show your results.</p> <p>Write a conclusion explaining your findings.</p>	<p>As part of a secret mission you need to skydive and then parachute into central London. Draw 4 force diagrams showing the different parts of the exercise, with the forces acting upon you shown by force arrows. Label the forces affecting you.</p> <ul style="list-style-type: none"> • Diagram 1: Draw the plane flying at a constant speed. • Diagram 2: Draw you accelerating towards the ground skydiving. • Diagram 3: Draw you falling at a constant speed skydiving. • Diagram 4: Draw you with your parachute out floating gently towards the earth. 						
	<p>The Government believe that the Earth will be visited by aliens. The Prime Minister has asked you to be the one to meet them. This means that you must live on the International Space Station for as long as it takes. To prepare for life in space you need to research into how gravity will affect you while you are in orbit around the Earth. Don't forget, there is very little gravity in space. Astronauts are weightless and float about. Research how astronauts eat, sleep, and even go to the bathroom and shower in space. How do they adjust to life with very little gravity? Look up information online or at the library & use this to write a diary entry as the astronaut.</p>	<p>What happens to the length of an elastic band when different weights are suspended from it? Experiment with different objects of different weights. Suspend the weight from the elastic band and measure the length of how much the elastic band has stretched. Record findings in a table - using the results, draw a line graph to show the different lengths for the different weights. A line graph can be drawn accurately if the different weights are placed in the correct order. Remember the safety aspects - be careful not to over stretch the bands as they can break. This will not only make the experiment void but also can cause pain if it flicks. Be sensible!</p>	<p>Create your own investigation of which objects around the house float or sink. Write a set of instructions to explain how someone can complete your investigation.</p> <ul style="list-style-type: none"> • What will you need? • How can they record their findings? • What diagrams / pictures could you include which could support your instructions? 						

Challenge: Create and complete your own task related to your class topic.

Please complete and return to your teacher by Monday 9th December 2019