



# Year 5 - Home Isolation Science Learning Page



## Summer 1 2021

In Year 5 this half term the focus of our Science learning is '**Forces.**' Here is the key learning from the National Curriculum that will be covered:

- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- Identify the effects of air resistance, water resistance and friction, which act between moving surfaces.
- Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.



<p><b>Lesson 1</b> What are forces?</p>	<p><b>Follow the link to the Oak Academy to complete a series of activities:</b> In this lesson, you will learn what forces are. You will also learn about contact forces and non-contact forces. Finally, you will test your knowledge with some application questions.</p>	<p><a href="https://classroom.thenational.academy/lessons/what-are-forces-6dh3ec">https://classroom.thenational.academy/lessons/what-are-forces-6dh3ec</a></p>
<p><b>Lesson 2</b> How can we measure the size of forces?</p>	<p><b>Follow the link to the Oak Academy to complete a series of activities:</b> In this lesson, you will learn how we can measure the size of forces, particularly how we can measure weight. You will learn about Isaac Newton and his contribution to our knowledge of forces as well as Newtons as a unit of measurement. You will also investigate how to use a Newton meter to measure forces.</p>	<p><a href="https://classroom.thenational.academy/lessons/how-can-we-measure-the-size-of-forces-c4vkcr">https://classroom.thenational.academy/lessons/how-can-we-measure-the-size-of-forces-c4vkcr</a></p>
<p><b>Lesson 3</b> What are contact forces?</p>	<p><b>Follow the link to the Oak Academy to complete a series of activities:</b> In this lesson, you will learn about contact forces. You will discuss air and water resistance and examine what balance and unbalanced forces are. You will also investigate friction. Based on our investigation we will make conclusions about the causes and characteristics of friction.</p>	<p><a href="https://classroom.thenational.academy/lessons/what-are-contact-forces-74t3gc">https://classroom.thenational.academy/lessons/what-are-contact-forces-74t3gc</a></p>
<p><b>Lesson 4</b> What are non-contact forces?</p>	<p><b>Follow the link to the Oak Academy to complete a series of activities:</b> In this lesson, you will recap the definition of non-contact forces. You will also investigate gravity and gravitational force and learn about Galileo by completing an investigation. Finally, you will learn about magnetic force, including some uses for magnets.</p>	<p><a href="https://classroom.thenational.academy/lessons/what-are-non-contact-forces-6djkgd">https://classroom.thenational.academy/lessons/what-are-non-contact-forces-6djkgd</a></p>
<p><b>Lesson 5</b> What impact to gears, levers and pulleys have on forces?</p>	<p><b>Follow the link to the Oak Academy to complete a series of activities:</b> In this lesson, you will first aim to understand the purpose of simple machines. You will then focus on gears, levers and pulleys to find out how they work and how they can be useful.</p>	<p><a href="https://classroom.thenational.academy/lessons/what-impact-do-gears-levers-and-pulleys-have-on-forces-60w3cd">https://classroom.thenational.academy/lessons/what-impact-do-gears-levers-and-pulleys-have-on-forces-60w3cd</a></p>

**Don't forget to use your Science Knowledge Organiser for this half term - Year 5 Forces - to help you learn and understand about this topic.**