**Intent**

We want the young people who study Science to have meaningful experiences that are appropriate for their ability level. They will apply scientific ideas to their everyday life to problem solve, during and after their time at Belvue School. We want them to be curious and safe as they explore their immediate and wider community. We will build on the understanding and confidence gained through exploration and practical work in school and local areas.

**Overview**

Year 7, 8 & 9 access the National Curriculum through a custom Belvue curriculum. It has been designed and created in house to ensure that it supports the progression and development of all students, across all pathways, in Science. It is a working document and will be updated as the demographic of our students change. The time allocation is 2 lessons of 40 minutes each per week to each class group

In years 10 & 11 whilst following the National Curriculum students work towards achieving the AQA Entry Level Qualification in Science. Pupils follow the syllabus as advised by AQA. For those students that cannot access the qualification the syllabus has been adapted to make it more accessible and they will be awarded a Belvue Certificate. The time allocation is 3 lessons of 40 minutes each per week to each class group



Science

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| KS3 | Autumn | Spring | Summer |
| Cycle 1 | *Materials* | *Light and Sound* | *Living Things and their Habitat* |
| Overview | Students will learn about the properties and uses of different materials | Students will learn about sources of light, shadows, how sounds are created and changed. We will also be covering how to keep your eyes and ears safe | Students will be able to identify parts of the body and their function. They will learn about reproduction and life cycles of different organisms (not plants) as well as their adaptations and habitats. |
| Investigations\*  \*These are examples of what we have completed in previous years | Which is the best tea bag material?  Which is the best oven glove material? | How to make soundproof headphones  How to create a rainbow | Which habitat do woodlice prefer?  How to camouflage |
| Cycle 2 | *Electricity* | *Forces* | *Plants* |
|  | Students will learn about different uses of electricity including the renewable and non-renewable ways of generating it. We will ensure they understand how to safely use electrical items. Student will learn how to make three circuits, to make a torch, doorbell and fan. We will cover how to use common appliances and troubleshooting common issues. | Student will learn about contact and non-contact forces, they will be able to identify the following actions, as well as carry them out in range of situations:  Push, pull, twist, floating and sinking.  We will also learn about friction and speed.  The final section will cover magnets | Students will learn to identify the parts of a plant and what it needs to grow, they will learn about the life cycle of various types of plants and will have the opportunity to plant seeds and take care of the plants as they grow. |
| Investigations\* | What is the difference between parallel and series circuits?  How to connect up a light and a bell on a bicycle | How do different flooring materials affect speed? | Create a plant diary  Bean dissections  Which is the best way to spread seeds |

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|  | Autumn | Spring | Summer |
| **Cycle 3** | ***Space*** | ***Animals (incl. Humans)*** | ***States of Matter*** |
|  | In this topic, students will cover seasonal change and its causes. They will learn about the interaction of the Sun, Moon and Earth to give us eclipses, day and night and a year. | Students will learn about the 5 types of animal, their life cycles and main parts of the body:  Mammals, Birds, Fish, Reptiles and Amphibians. | In this topic students will learn about solids liquids and gases and the transitions between them. We will also learn about mixtures and ways to separate them |
| Investigations\* | Rocket building competition | Organ dissection demonstrations | How do we get drinkable water from a sand and salty water mixture? |



Science

