## 7V - Venture Curriculum - Science 6 Lessons Weekly

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Year	2024 – 2025 Autumn 1	2024 – 2025 Autumn 2	2023 – 2024 Spring 1	2024 – 2025 Spring 2	2024 – 2025 Summer 1	2024 – 2025 Summer 2
Year		Topic: C Grouping and classifying  Suggested Key Questions: How can we group different materials?  Key Skills and Knowledge: To be able to use all senses to identify some similarities and differences between materials. To be able to sort and group materials in different ways. To be able to	Topic: P Electricity  Suggested Key Questions: What do we use electricity for?  Key Skills and Knowledge:  To know that electricity can be dangerous.  To know that electricity can produce light, heat, sound, movement.  To be able to connect given circuit components to light the bulb/make the		Topic: C Acids and alkalis  Suggested Key Questions: What are acids and alkalis?  Key Skills and Knowledge: To be aware that many everyday chemicals and foods contain acids To understand that acids can burn you and can be dangerous To know that we must wear goggles when using acids To recognise	Topic: P Light  Suggested Key Questions: What are the properties of light?  Key Skills and Knowledge:  To be able to identify and sort a range of sources e.g. sun, TV, fire, etc  To be able to compare light sources for brightness  To be able to identify dark places.  To be able to link shadows and darkness.  To be able to explore making shadows.
	some of the commonly used science apparatus.  • Pupils to practise drawing science apparatus correctly.  • Pupils to practise turning a Bunsen burner off and on correctly, and changing the type of flame.	explore magnetism, transparency, floating and sinking.  To be able to use some of the correct vocabulary for properties of materials.  To be able to recognise objects that are natural and	<ul> <li>buzzer sound.</li> <li>To be able to contribute to class discussion and questioning.</li> <li>Does the number of batteries in a circuit make a difference to the brightness of the bulb?</li> <li>Does the length of wire or colour of</li> </ul>	differentiate between different kinds of exercise.  To know that food is needed for growth, health and activity.  To be able to group foods simply e.g. fillers, fruit/vegetables, dairy, meat/fish, fatty etc.  To know that food is vital for energy, growth and health.	common hazard symbols associated with acids  • To observe the effect of acids on bicarbonate of soda  • To use litmus paper as a more sophisticated method of detecting an acid	<ul> <li>To know that light travels from sources.</li> <li>To know that light travels in straight lines.</li> <li>To be able to explain how shadows are formed.</li> <li>To know that light bounces off all surfaces.</li> <li>To know that when light bounces off shiny,</li> </ul>

# Curriculum intent (overview) – To deepen students' skills and knowledge through a broad and balanced curriculum which prepares students for adulthood.

 Pupils to be able to use a microscope, thermometer and measuring equipment correctly.

## B Body parts and senses

- To be able to name the external parts of the body.
- To associate parts of the body with particular functions.
- To be able to suggest what is inside the body.
- To be able to explore the 5 senses practically.
- To know which organs are associated with which sense.
- To know the importance of senses in survival.

### **Key Skills:**

Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers.

- those that are manmade (processed).
- To be able to list different uses for materials.
- To know what other materials could do the same job.
- To be able to identify common materials – in a variety of places.
- To be able to test materials for properties.
- To know electrical and heat conductors and insulators.
- To be able to use a thermometer and know temperature is measured in °C.
- To be able to classify materials as solid, liquid or gas
- To know the main simple properties of solids, liquids and gases

### Key Skills: Key Skills:

Ask some relevant questions and use different types of scientific enquiries to answer them.

Begin to raise their own questions about the world around them.

wire or knots in wire make a difference to the brightness of the bulb or whether the bulb lights up

### Key Skills:

Learn to use some new equipment appropriately.

Begin to see a pattern in my results.

- To be able to test for starch and fat.
- To be able to group foods according to carbohydrate, protein, fat, vitamins and minerals.
- To be able to describe the process of digestion
- To be able to label the main parts of the digestive system

### Key Skills:

Begin to recognise when a simple fair test is necessary and help to decide how to set it up.

Gather, record, and begin to classify and present data in a variety of ways to help in answering questions.

- To use the term "indicator" when describing an acid
- To recall that the opposite to an acid is an alkali
- To understand that a substance that is neither acidic nor alkaline is called neutral
- To know that tap water is (more or less) neutral
- To know that we can make an acid neutral if we add an alkali
- To understand that we can use neutralisation to treat bee stings wasp stings and indigestion.

### **Key Skills:**

Begin to identify differences, similarities or changes related to simple scientific ideas and processes.

Use simple secondary sources to find answers.

- regular surfaces we can see an image.
- To be able to explain what reflection is and how it is different to an image.
- To be able to explain why dull, uneven surfaces do not produce images.
- To know that our eyes receive light.
- To be able to describe how light from sources travels through the air to our eyes.
- To be able to draw and show direction of the path of light involved in seeing an object.
- To be able to identify the outside features of eyes.

### **Key Skills:**

I am beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Begin to use some scientific language to talk and, later, write about what they have found out. Begin to use relevant scientific language.

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Links to
Gatsby
Benchmarks:

Benchmark 2, –
Learning from the
Career and Labor
Market information.
Benchmark 3 –
Addressing the needs
of the student and \* Personal Guidance

Students to consider what skills are required to be a paramedic, doctor, nurse, vet that leads onto looking at what skills are needed for different roles they are interested in and what qualifications.

Benchmark 2, –
Learning from the
Career and Labor
Market information.
Benchmark 3 –
Addressing the needs
of the student and \* Personal Guidance
Benchmark 4 –
Linking Curriculum to
learning
Benchmark 8 –
Personal Guidance

Students to consider what skills are required for waiters, builders, mechanics, to access the opportunities they are interested in. Going into work places/remote visits. Research. Writing C.Vs and cover letters.

Benchmark 2, –
Learning from the
Career and Labor
Market information.
Benchmark 3 –
Addressing the needs
of the student and \* Personal Guidance
Benchmark 5Encounters with
employers and
employees

Students to consider what skills are required to be an electrician, technician, games designer to access the opportunities they are interested in. Research.

Benchmark 2, – Learning from the Career and Labor Market information. Benchmark 3 – Addressing the needs of the student and \* -Personal Guidance Benchmark 5-Encounters with employers and employees

Students to consider what skills are required to be a dietician, nutritionist, health care assistant to access the opportunities they are interested in. Research.

Benchmark 2, — Learning from the Career and Labor Market information. Benchmark 3 — Addressing the needs of the student and \* -Personal Guidance Benchmark 6 — Experience of Work places

Students to consider what skills are required to be a chemist, pharmacist, cleaner, paramedic, to access the opportunities they are interested in. Looking at careers in sports and researching sports.

Benchmark 2, – Learning from the Career and Labor Market information. Benchmark 3 – Addressing the needs of the student and \* -Personal Guidance Benchmark 6 – Experience of Work places

Students to consider what skills are required to be an optician, director, projector, radiographer, to access the opportunities they are interested in.

Looking at careers in sports and researching sports.