7V - Venture Curriculum - Science 6 Lessons Weekly

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Year	2023 – 2024	2023 – 2024	2023 – 2024	2023 – 2024	2023 – 2024	2023 – 2024
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year	Autumn 1 Topic: Intro to lab B Body parts and senses Suggested Key Questions: What are the common scientific equipment? How do we work safely in the lab? How do we sense the world around us? Key Skills and Knowledge: Pupils to know the Laboratory rules and to start abiding by them. Pupils to see, handle and name 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	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 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	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 buzzer sound. To be able to contribute to class discussion and questioning. Does the number of batteries in a circuit make a difference to the brightness of the bulb? Does the length of	Topic: B Keeping Healthy Suggested Key Questions: How can we stay healthy? Key Skills and Knowledge: To know about the importance of food and water to humans. To be able to distinguish between healthy and less healthy foods. To be able to recognise the need for a variety of foods and exercises. To be able to plan a healthy meal. To be able to 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,	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 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 To use the term	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. To know that light travels from sources. To know that light travels in straight lines. To be able to explain how shadows are formed. To know that light bounces off all surfaces. To know that when light bounces off shiny,

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flame.

 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. that are natural and 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

wire or colour of 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.

growth and health.

- 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.

- "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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		them.				
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	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 –	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	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	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	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
	paramedic, doctor, nurse, vet that leads onto looking at what skills are needed for different roles they are interested in and what qualifications.	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.	Students to consider what skills are required to be an electrician, technician, games designer to access the opportunities they are interested in. Research.	Students to consider what skills are required to be a dietician, nutritionist, health care assistant to access the opportunities they are interested in. Research.	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.	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.