BENSHAM MANOR School

Science Year 8 Route 2 (8VF) Curriculum Map 2026-27

The curriculum is designed for students to have fun and enjoy science lessons. The aim is for students to appreciate the value of science in their everyday lives. We want to help our young learners understand the world around them and make relevant connections. We encourage students to express their own thoughts and ideas, become curious learners; asking questions and developing independence and communication skills. We motivate students to reach their full potential by building on prior learning and skills, supporting and scaffolding their learning so they can achieve at all levels. Students are encouraged to address misconceptions, develop scientific skills and key scientific concepts that can be built upon across the KS3 curriculum and expanded upon in KS4. The KS3 curriculum topics have been carefully sequenced so students gain a firm foundation in year 7 and will help them to progress into year 8. KS1 and KS2 knowledge is secured as appropriate. The desired outcome is cohort-specific; all students progress their way through the science solar steps which are based on knowledge and skills.

Topic Title	Topic overview	Knowledge and Skills	Assessment	Key words
Autumn Term 1) Chemical Reactions	In this unit students will experience and explore a variety of different reactions that occur in everyday life. Students will learn how to tell if a chemical reaction has happened and how chemical reactions can be useful.	• Recall some reversible and non-reversible changes. • Know what to look for when a chemical reaction happens. • Be able to test for oxygen, carbon dioxide and hydrogen **<u>Working scientifically</u>** • To develop the skill of observing. • To develop the skill of recording.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning and testing.	physical change reversible burning baking product hydrogen chemical change irreversible rusting reactant oxygen carbon dioxide
Autumn Term 2) Animals and plants	In this unit students will consolidate their understanding of the main structures of animals and plants.	• To be able to name and compare body parts of animals. • Name the different organs of plants and give their function. • To know a plant's requirements to stay alive. • To compare plant and animal parts and how these relate to needs. **<u>Working scientifically</u>** • To begin to plan an investigation • To begin to interpret results.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning and testing.	head fur scales bite sharp chew food leaf root grow rain legs feathers hair claws pointed rip air stem bulb water sun tail skin teeth beak bite tear oxygen flower seed light plant
Spring Term	In this unit students will become familiar with the main parts of the internal	• To name, locate and use the sense organs. • To be able to name and locate different external and internal body parts.	Teacher assessment through a variety of activities - quizzes, word	see touch ear skin lungs smell taste eye brain stomach ear nose tongue heart liver

3) Humans - Food drink and exercise	and external body. Students will consider why we need food and which foods are good for our bodies. They will be introduced to the 3 main systems of the body and they will explore what happens when we become ill.	● To know why we need food. ● To be able to sort foods as healthy or less healthy. ● Be able to plan a healthy meal. ● To understand the function of the heart, skeleton and lungs. ● To be able to show what it is like to feel ill and discuss why we get ill. ● To know that medicines can be dangerous. ● To be able to identify some common hazard symbols **Working scientifically** ● To develop the skill of measuring and observing. ● To develop the skill of recording. ● To develop the skill of discussing and questioning. ● To undertake research	wall, games, questioning and testing.	pancreas intestine kidneys protein fat sugar carbohydrate fibre vitamins minerals bones blood respiratory system breathing circulatory system pumping Skeletal system hazard
Spring Term 4) Human life cycle and growth	In this unit students learn about the five stages of human development into adulthood. They will be introduced to the reproductive system changes that occur during puberty.	● To name and describe the different stages in the human life cycle. ● Describe changes that occur during puberty ● Be able to identify the male and female reproductive systems and name the key parts. ● Know how a female can become pregnant. **Working scientifically** ● To develop the skill of discussing.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning and testing.	baby toddler children teenager adult old person elderly grow change old young male female penis breasts pregnancy hormones
Summer Term 5) The environment	This unit looks at different types of habitats and the organisms living within them. Students will look at	● To name and describe different habitats ● To identify what an environment provides.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning and testing.	habitat desert woodland ocean grassland forest pond polar environment camouflage temperature adaptation extinct endangered

	what an environment can provide and how organisms are designed to survive in specific habitats.	● Understand how camouflage can help an animal to survive. ● Discuss how organisms are adapted to their environment. ● To consider why certain animals have become extinct and why others are endangered. ● Understand why it is important to treat animals and the environment with care and sensitivity. **<u>Working scientifically</u>** ● To develop the skill of observation.		
Summer Term 6) Earth and Space.	In this unit students will consider what it is like to be in space from the eyes of an astronaut. They will learn about the structure of the solar system and beyond and explore the characteristics of the planets.	● Name the planets in the solar system. ● Describe the movement of planets in the solar system ● Be able to describe how day and night happens ● What is gravity? ● What is a galaxy ● Would you like to go to space? **<u>Working scientifically</u>** ● To undertake research ● To interpret data ● To share knowledge. ● To ask questions.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning and testing.	sun stars orbit Vénus Earth Saturn Neptune asteroid satellites galaxies moon planet Mercury Mars Jupiter Uranus Pluto gravity solar system