

SCIENCE
KEY QUESTIONS

EYFS	**Term 1: Seasons Autumn** What happens in Autumn? What happens to the weather in Autumn? What should I wear in Autumn? **Humans** Can you name parts of the body? Can you use your senses to find out about the world?	**Term 2: Seasons – Winter** What happens in the Winter?	**Term 3: Materials: How to keep warm** Can you name these materials? (Fabric, glass, wood, metal, plastic and rock) Can you describe these materials? (Use words such as hard, soft, rough, smooth, strong, bendy)
	Term 4: Spring What happens in the Spring?	**Term 5: Animals** Can you name some different animals? (farm animals, pets, wild animals) Can you name parts of an animal? Can you sort animals? (land animals (mammals), fish, birds)	**Term 6: Summer** What happens in the summer? **Plants** Can you name the parts of a flower? (flower, stem leaf, root) How would you look after a plant?
Y1	**Term 1: Humans** Can you name parts of the body? (including throat, neck, wrist, elbow, ankle) How can you keep your body healthy? (healthy food, water, exercise, sleep, brush teeth) Can you name the 5 senses? What would you put in a healthy lunchbox?	**Term 2: Seasons - Autumn and Winter** Can you explain what happens in the Autumn? Can you explain what happens in the Winter? Can you name the months of the year? (and link months to seasons – Autumn and Winter) Which season do you prefer and why?	**Term 3: Materials** Can you identify 4 different materials found in the classroom? Can you group materials based on their properties? (hard or soft, shiny or dull) Can you name some materials that change shape? (by twisting, bending, squashing, stretching) What material would you use to make a strong bridge?
	Term 4: Seasons- Spring What happens in the Spring?	**Term 5: Animals** Can you name and group a wide range of animals? (fish, birds and mammals) Can you group animals; herbivores, carnivores, omnivores) What do animals need to live? What questions would you ask to identify an animal?	**Term 6: Plants** Can you name and label different parts of a plant? (petal, flower, stem, leaf, roots, branches, trunk, roots, leaves) What does a plant need to live? Can you name some wild and garden flowers? Can you name some deciduous and evergreen trees? Where would you plant your seed and why?

Y2	**Term 1: Humans- Growing up** How do humans change as they grow? What is the life cycle of a human? What is the life cycle of an amphibian? How is the life cycle of an amphibian different to a human's life cycle?	**Term 2: Plants- Light and Dark** What are the parts of a tree? What are the parts of flowering plants? Can you name some different plants? What do plants need to grow?	**Term 3: Materials** Can you identify 4 different materials found around the school? Can you group materials based on their properties and consider whether man-made or natural? Can you name a range of materials that change shape and say how? (twist, stretch), bend, squash) Can you identify the best material to build a bridge with and explain why?
	Term 4: Living Things and Their Habitats What makes something living? What makes a habitat suitable? What are the different parts of a food chain? What habitat would you choose to live in?	**Term 5: Animals' needs for survival** What do animals need to survive? What groups can animals be classified into? What food do animals need to grow and live? Does this change for different animals?	**Term 6: Plants- Bulbs and Seeds** What is the difference between a bulb and a seed? What do plants need to stay healthy? How do plants change over time? What happens to bulbs and seeds?
Y3	**Term 1: Rocks and Soils** How is soil formed? How can rocks be grouped? What is a fossil? How are fossils formed?	**Term 2: Skeletons, nutrition and diet** How does the skeleton protect the body and help it to move? Where is the femur, skull, ribcage, pelvis and spine on the human skeleton? What are the five main food groups? How do muscles work to move our bodies?	**Term 3: Forces and Magnets** What is a magnetic force? What are the poles of a magnet? How do magnets attract and repel each other? What everyday items are magnetic?
	Term 4: Light How is a shadow formed? What are sources of light and what is not a source of light? What are reflective materials? How can a shadow change size and shape?	**Term 5: Plants** What is the life cycle of a plant? What are the parts of a flowering plant? What does a plant need to grow and reproduce? What is pollination?	**Term 6: Scientific Enquiry** How can I set up a fair comparative test? How can I use results to draw conclusions? How does water travel through the xylem? How can I find answers to my questions?

Y4	**Term 1: Group and classify living things** How can living things be classified into groups and what characteristics are used to do this? What are the seven life processes that all living things need to survive? How do habitats support living things and what happens when environments change? How are living things in an ecosystem connected and dependent on each other?	**Term 2: Sound** How is sound made and how does it travel through different materials? How can vibrations change the pitch and volume of sound? How do different materials affect the sound an instrument makes? Why do different materials and vibrations affect the sound an instrument makes?	**Term 3: States of Matter** How do particles behave in solids, liquids and gases, and how does this affect their properties? How do heating and cooling cause changes of state such as melting, freezing, evaporation and condensation? How does the water cycle show changes between different states of matter? How does changing temperature affect particles and cause materials to change state?
	Term 4: Electricity What are the sources of electricity and which appliances use it? How can we build and explain a complete circuit, and what happens when a circuit is incomplete? Which materials are conductors and which are insulators? Why is a complete circuit needed for electricity to work?	**Term 5: Habitats and Food Chains** What are habitats and how do they provide what living things need to survive? How do habitats support living things and what happens when environments change? How can we interpret and construct food chains to show how living things depend on each other? Why are habitats and food chains important for the survival of living things?	**Term 6: Teeth and Digestion** What are the different types of teeth and what are their functions? What is the journey food takes through the digestive system? How are living things connected through food chains? How do teeth, digestion and food chains help living things survive?
Y5	**Term 1: Forces** Why do objects fall towards the Earth, and why they speed up as they fall? How does air resistance, water resistance and friction affect how things move? How we can change the effects of friction to make movement easier or harder? How can levers, pulleys and gears help us move or lift things using less force?	**Term 2: Space** What the solar system is made up of and how are the planets arranged? How does the earth's movement results in the change from night to day and the change in seasons? What are the phases of the moon? How would things be different if the world spun faster than it does?	**Term 3: Properties of Materials** How can materials be sorted based on different properties including magnetism, transparency, hardness and flexibility? How do materials conduct or insulate heat? How do materials conduct or insulate electricity? How do the materials of an object make it useful for specific purposes?

	Term 4: Reversible and irreversible changes What is the different between solids, liquids and gases? How can materials can be separated in different ways? How can materials change and how can these changes be reversed? How can reversable and irreversible properties ensure a product achieve its purpose (e.g. reusable cool pack, spill cleaning product)?	**Term 5: Animals including humans** How do humans change as they grow? What happens to our bodies during puberty? How does our lifestyle affect how we grow and develop? Does everyone experience the human life cycle in the same way?	**Term 6: Reproduction in animals and plants** How do different plants reproduce? How do flowers, pollinators and seeds help in reproduction? How do mammals reproduce and grow? How are life cycles of different living things similar — and how they are different?
Y6	**Term 1: Living things and their habitats** What is a living thing? How can they be classified using criteria? How can animals be classified by identifying the characteristics of mammals, birds, insects, reptiles, amphibians, fish, arachnids, annelids, crustaceans, echinoderms, and molluscs? How can living things be classified into broad groups according to common observable characteristics, similarities and differences?	**Term 2: Electricity** How are recognised symbols used to represent a circuit? How can a simple circuit be built to help answer questions about what happens when different components are tried? What makes a circuit complete or incomplete? How can different circuits be compared, and reasons given for variations?	**Term 3: Light** How does light travel? How do we see objects? Why do shadows have the same shape as the objects which cast them? How can I use a diagram to show how light reflects?
	Term 4: Variations and Adaptations How are some characteristics inherited and others are influenced by the environment? How can an adaptation help an organism survive? why are certain features useful in particular environments? How can examples of inherited and environmental characteristics be identified and compared in different organisms?	**Term 5: The Circulatory System** What are the functions of the heart, blood vessels and blood? What is the impact of diet and exercise on the circulatory system? What is the circulatory system? What is oxygenated and deoxygenated blood?	**Term 6: Diet, Drugs and Lifestyle** How does a balanced diet help the body grow, stay healthy, and have enough energy? What effects can drugs, alcohol, and smoking have on the body and brain? How do lifestyle choices such as exercise, sleep, and screen time affect physical and mental health? How can people make informed decisions to maintain a healthy lifestyle now and in the future?