

Science Vocabulary Progression

Year	Enquiry	Word	Definition	New/ Revised
1	What is Blackhorse like in...? (Seasons)	Seasons	The seasons are four different times during the year with different types of weather.	New
		summer	Summer is the hottest season with long days.	New
		autumn	Autumn is when leaves fall and temperatures cool.	New
		winter	Winter is the coldest season with short days.	New
		spring	Spring is when flowers bloom and the weather gets warmer.	New
		weather	The conditions outside at a particular place and time	New
		frost	Frost is a thin layer of ice that forms on things outside when it gets very cold.	New
		fog	Fog is like a cloud close to the ground that makes it hard to see far.	New
		Temperature	Temperature tells us how hot or cold something is.	New
		sunset	Sunset is when the sun goes down in the evening	New
		sunrise	Sunrise is when the sun comes up in the morning	New
		Implicit vocab: wind, rain, snow, sun, hot, cold, day length		
1	What is the best material to make a hat?	Material	Materials are what an object is made from.	New
		Property	A property is what a material is like and how it behaves.	New
		reflective	A material that can bounce back light.	New
		dull	Dull materials don't reflect light. Doesn't look bright or shiny	New
		Waterproof	If something is waterproof, it keeps water out.	New
		Absorbent	If something is absorbent, it soaks liquid up.	New
		Opaque	Opaque objects can't be seen through.	new
		Transparent	Transparent objects can be seen through.	New
		Other vocab: object, wood, plastic, glass, metal, water, rock, hard/soft; stretchy/stiff; rough/smooth; bendy/not bendy		
1	What grows near me?	Plant	A living thing that grows in soil or water.	New
		deciduous	Deciduous trees lose their leaves in autumn and grow new leaves in spring.	New
		Evergreen	Evergreen trees keep their leaves all year, even in winter.	New
		root	Roots take in water and nutrients from the soil and keep the plant in the ground.	New
		stem	The stem holds the plant up and carries the water and nutrients.	New
		flowers	Flowers attract insects and birds.	New
		leaves	Leaves catch sunlight to help the plant to make its own food.	New
		fruit	The fruit is the part of a plant that contains seeds.	New
		Other vocab: Wild plants, garden plants, trunk, branches		
1	What type of animal am I?	Animal	Animals are living things.	New
		Herbivore	Animals that only eat plants are herbivores.	New
		Omnivore	Animals that eat both plants and other animals are omnivores.	New
		Carnivore	Animals that mostly eat other animals (meat) are carnivores.	New
		Birds	All birds have a beak, two legs, feathers and wings.	New
		Mammals	Mammals are animals that breathe air, grow hair or fur and feed on their mother's milk as a baby.	New

		Fish	Fish live and breathe under water. They have scaly skin, fins to help them swim and they breathe through gills	New
		amphibians	Amphibians live in the water as babies and on land as they grow older. They have smooth, slimy skin	New
		Reptile	All reptiles breathe air. They have scales on their skin.	New
		senses	Senses allow us to observe and understand the world around us. They are sight, smell, taste, hearing and touch.	New
		Other: sight, smell, see, hear, touch, taste, head, face, neck, teeth, arms, elbow, hands, knees, legs, feet.		
2	What are the properties of different building materials?	material	Materials are what an object is made from.	Revise
		suitability	Suitability means having the properties which are right for a specific purpose.	New
		property	A property is what a material is like and how it behaves.	Revise
		Waterproof	If something is waterproof, it keeps water out.	Revise
		Absorbent	If something is absorbent, it soaks liquid up.	Revise
		Opaque	Opaque objects can't be seen through.	Revise
		Transparent	Transparent objects can be seen through.	Revise
		Malleable	The shape of malleable materials can be changed without breaking.	New
		Rigid	Rigid materials can't be bent.	new
		Other vocab: hard, soft, stretchy, reflective, dull, rough, smooth, metal, plastic, wood, glass, water, rock, card/ paper,		
2	What is a habitat?	Habitat	The place in which a plant or animal lives.	New
		micro-habitat	A small scale habitat in which a plant or animal lives.	New
		living	Things that are living have all the life processes.	New
		dead	Things that did have all the life processes but don't now.	New
		never lived	Things that have never demonstrated the life processes.	new
		food chain	The changes living things go through to become an adult.	New
		depend	Animals and plants depend on each other which means they need each other for different things.	New
		Suitability	To have features that enable them to live in certain places.	New
		Other: food, shelter, sea-shore, woodland, rainforest, ocean, pond, plant, animal, predator, consumer, producer		
2	How do plants grow?	suitable temperature	A suitable temperature is the specific temperature that a certain plant needs to grow.	New
		Bulb	A bulb is an underground bud or stem of a plant at resting stage.	New
		seed	A seed is the part of a plant which can grow into a new plant.	New
		shoot	The part of a plant that comes up above the ground when it is just beginning to grow	New
		germination	Germination is the process of a seed starting to grow.	New
		Other: plant, Leaves, stem, root, flower, fruit, Light, water,		
2	How do humans stay healthy?	Balanced diet	A diet consisting of a variety of food.	New
		Life cycle	The changes living things go through to become an adult.	New
		Offspring	An animal's baby or children	New
		Survival	To continue to live.	New
		Exercise	Exercise is a physical activity to keep your body fit.	New
		Hygiene	Hygiene is how we keep ourselves clean so we can stay healthy.	New

		Other: food/ air/ water		
3	How does food build champions?	Balanced diet	A diet consisting of a variety of food.	Revise
		Nutrients	substances that living things need to stay alive and healthy	new
		Skeleton	The structure of bones inside some animals.	New
		Muscle	Bands of strong tissue which can contract and relax to move the body.	New
		carbohydrate	Carbohydrates provide energy.	New
		Dairy	Dairy contains protein and calcium which is great for bones.	New
				New
		Oils and spreads	Oils and spreads are a source of energy.	New
		Protein	Protein helps growth and repair.	New
		Fruits and vegetables	Fruits and vegetables contain important vitamins and minerals as well as fibre.	New
		Other: relax, contract, movement, protection, organs, minerals, vitamins, water		
3	What is the earth made of?	Soil	Soil is a mixture of tiny particles of rock, dead plants and animals, air and water.	New
		Fossil	The remains of a plant or animal, which lives millions of years ago, cast into rock	New
		Igneous rock	A type of rock formed when melted rock and minerals cool and solidify.	New
		Sedimentary rock	A type of rock formed when plant and animal remains, sand, mud and stones are compressed.	New
		Metamorphic rock	A type of rock formed when other rocks are heated and compressed.	New
		Permeable	An object or material which allows water to pass through it.	New
		Impermeable	An object or material that does not allow water to pass through it.	New
		Other: Appearance, texture, sand, clay, chalk, granite, marble, minerals sediment, grains, crystals.		
3	How do plants reproduce?	nutrients	Substances which can be used by a living thing to live, grow and repair	New
		root	Roots take in water and nutrients from the soil and keep the plant in the ground.	Revise
		stem	The stem holds the plant up and carries the water and nutrients.	revise
		flowers	Flowers attract insects and birds.	revise
		leaves	Leaves catch sunlight to help the plant to make its own food.	revise
		fruit	The fruit is the part of a plant that contains seeds.	revise
		pollination	The process of pollen getting from an anther to a stigma in a flowering plant.	New
		fertilisation	The process of pollen joining with an egg	New
		seed dispersal	The movement of seeds away from the parent plant.	new
		Other vocab: Light, water, suitable temperature, bulb, seed, grow, shoot, germination, stigma, stamen, ovule style, pollen		
3	What is a force?	Magnetic Pole	The end of a magnet where the magnetic field is the strongest	New
		Magnetic	A material or object which is attracted to a magnet.	New
		magnet	An object which produces a magnetic field and can attract and repel other magnets of magnetic materials.	New
		Attract	Attraction is a force that pulls objects together.	New
		Repel	Repulsion is a force that pushes object away	New

		force	A push or a pull that can make an object move, accelerate, slow down, stop or change shape.	New
		Other: North, South, rough, smooth, Steel, Iron, Metal, Nickel, cobalt, Push, pull.		
3	How do shadows form?	Light	Light is a form of energy.	New
		Dark	Darkness is the absence of light.	New
		Shadow	A dark area which forms when an object blocks light rays.	New
		Reflect	When light bounces off a surface.	New
		Opaque	Opaque objects can't be seen through.	Revise
		Transparent	Transparent objects can be seen through.	revise
		Light Source	An object which produces light.	New
4	How do you build an electric circuit?	Electricity	The flow of an electric current through a material	New
		Circuit	A path that an electrical current can flow around	New
		simple series circuit	A circuit where the components are connected in a loop.	New
		conductor	A material that will allow electricity to flow through it.	New
		Battery	A device that stores chemical energy until it is needed.	New
		insulator	A material that does not allow electricity to flow through it.	New
		Component	Components are the parts that make up a circuit.	New
		Other: cell, wire, bulb, buzzer, open circuit, closed circuit, appliance		
4	Where does water come from?	Evaporation	The process by which a liquid turns into a gas as it is heated.	New
		condensation	The resulting liquid when a gas is cooled and turns into a liquid.	New
		water vapour	This is water that takes the form of a gas	New
		Solid	A state of matter which maintains its shape.	New
		Liquid	A state of matter which can be poured and takes the shape of the container it's in.	New
		Gas	A state of matter which spreads to fill a space.	New
		Change of state	The process of one state of matter (solid, liquid or gas) changing to another.	New
		temperature	Temperature tells us how hot or cold something is.	Revise
4	How do protect our habitat?	Vertebrate	Animals with backbones.	New
		Invertebrate	Animals without backbones.	New
		Environment	The surroundings or conditions in which a person, animal, or plant lives.	New
		Habitat	The place in which a plant or animal lives.	Revise
		Insect	A type of very small animal with six legs	New
		Other: human impact, climate change, Mammals, Amphibians, Reptiles, Birds. fish,		
4	How does sound travel?	Volume	The loudness of a sound.	New
		Quiet	Making little or no noise.	New
		Loud	Having a large amount of sound.	New
		Pitch	How low or high a sound is.	New
		High	Faster vibrations = higher pitch.	New
		Low	Slower vibrations = lower pitch	New
		Vibration	A quick movement back and forth.	New
		Sound wave	Vibrations travelling from a sound source.	New
		Amplitude	The size of a vibration. A larger amplitude = a louder sound.	New
4	How do animals and	Digest	Digest is to break down food so it can be used by the body.	New

	humans eat?	Oesophagus,	The oesophagus is a muscular tube which moves food from the mouth to the stomach.	New
		intestine	The intestine is where water and nutrients are absorbed and faeces is made.	New
		Stomach	The stomach is an organ in the where food is broken down.	New
		Teeth	Teeth are hard structures in the mouth that help with biting and chewing food.	New
		Producer	A producer is an organism, such as a plant, that produces its own food	New
		Predator	A predator is an animal that hunts and eats other animals.	New
		Prey	Prey are animals that gets hunted and eaten by another animal.	New
		Other: Digestive system, Mouth, Tongue, , Saliva, Molars, Canines, Incisors, Acids, Enzymes, food chain, herbivore, carnivore, omnivore		
5	How do materials change?	Change of state	The process of one state of matter (solid, liquid or gas) changing to another.	Revise
		Solid	Solid particles are very close together, meaning solids, such as wood and glass, hold their shape.	Revise
		Liquid	In a liquid the particles are more loosely packed and can move around each other.	Revise
		Gas	Gas particles are further apart than solid or liquid particles and they are free to move around.	Revise
		Reversible	A reversible change is a change that can be undone or reversed such as dissolving.	New
		Irreversible	An irreversible change is when something cannot be changed back to its original form.	New
		Solubility	Solubility is the ability to be dissolved.	New
		Transparency	A transparent object lets light through so the object can be looked through.	New
		Conductivity	The property of allowing heat or electricity to go through something.	New
		Dissolve	A solid becoming incorporated into a liquid.	New
		Solution	A mixture in which one substance is dissolved in another.	New
		Other: soluble, insoluble, hardness, Filtering, Sieving, Evaporating		
5	What can forces do?	Force	A push or a pull that can make an object move, accelerate, slow down, stop or change shape.	revise
		Gravity	A force which pulls objects towards the centre of a larger object.	New
		Air resistance	A force, which acts against objects moving through the air and slows them down.	New
		Water resistance,	A force, which acts again against objects moving through water and slows them down.	New
		friction	A force which occurs when one surface is moving against or over another.	New
		Mechanism	A simple machine, or part of a machine, which performs an action.	New
		Other: Levers, Pulleys, Gears. Effect, Accelerate, Decelerate, Stop, Move		
5	How does the earth move?	Spherical	Having a shape like a sphere – planets are near spherical objects.	New
		Solar system	The solar system consists of the sun and everything that orbits it.	New
		Axis	An imaginary line an object turns around.	New

		Orbit	A repeated path that an object takes around another object.	New
		Rotation	Turning around an axis.	New
		Planet	A large object that orbits a star.	New
		Gravity	A force which pulls objects towards the centre of a larger object.	Revise
		Earth	Earth is a planet that spins around in space and travels around the Sun.	New
		Moon	The Moon is a large natural object that orbits, or travels around, Earth	New
		Sun	The Sun is the star at the centre of the solar system	New
		Other: Dwarf planet, Star , Day, Night Mercury Venus Mars Jupiter Saturn, Uranus, Neptune, Pluto		
5	How can we create habitats?	Reproduction	The process of new living things being made.	new
		Offspring	An animal's baby or children	Revise
		Asexual reproduction	Reproduction when part of a plant grows into a new plant.	New
		Sexual reproduction	Reproduction requiring male cells before a new animal or plant is made.	New
		Pollination	The process of pollen getting from an anther to a stigma in a flowering plant.	Revise
		Other: Mammal, Amphibian, Insect, Bird, Life cycle,		
6	How does the heart work?	Circulatory system	The circulatory system delivers oxygen and nutrients to cells and takes away wastes	New
		Heart	A muscular organ which is part of the circulatory system and pumps blood through the blood vessels and around the body.	New
		Blood	A red liquid which transports water, oxygen, carbon dioxide, and nutrients around the body.	New
		Blood vessels	Small tubes connected to the heart that carry blood around the body.	New
		Arteries	Thick, strong blood vessels that carry oxygenated blood around the body.	New
		Veins	Blood vessels that transport deoxygenated blood around the body.	New
		Nutrients	Substances which can be used by a living thing to live, grow and repair	Revise
		Organs	A part of the body of an animal or plant that performs a particular job.	New
		Other: Diet, Exercise, Drugs, Alcohol, Lifestyle, Lungs, Digestion		
6	How does light travel?	Light source	Something that produces light	Revise
		Shadow	A dark area which forms when an object blocks light rays.	Revise
		Reflect	Where light rays bounce off a material and change direction.	Develop
		Other: Travels, Straight, Object, Mirrors, Rainbow, Filters		
6	How do living things change over time?	Vertebrate	Animals with backbones.	Revise
		Invertebrate	Animals without backbones.	Revise
		Microorganism	An organism that can only be seen using a microscope.	new
		Inherit	Inherit means to get a certain characteristic or set of characteristics from parents.	new
		Characteristics	Special qualities or appearances that make an individual or group of things different to others.	new

		Evolution	The theory of how living things have changed over millions of years.	new
		Natural selection	When a living thing survives and reproduces because of a specific adaptation.	new
		Adaptation	Specific changes to a characteristic of a living thing that helps it survive.	new
		Other: Offspring, fossil, mammals, birds, reptiles, amphibians, insects, fish, plants, animals,		
6	How do we vary electrical power?	Battery	A device that stores chemical energy until it is needed. A battery is a collection of cells.	Revise
		Cell	A device that stores chemical energy until it is needed. A cell is a single unit.	new
		Bulb	A component that lights up in a complete circuit.	new
		Buzzer	A component that makes a noise in a complete circuit.	new
		Circuit	A path that an electrical current can flow around.	revise
		Series circuit	A circuit where the components are connected in a loop.	Revise
		Switch	A component that is used to turn other components in the circuit on or off	new
		Voltage	The force that makes the electric current move through the wires.	new
		Other: Electricity, Wire. Bulbs. Buzzer, Lamp, Switch, brightness, Volume Symbols, components		