

Science – Key Knowledge grid

Subject area: Science				
Coordinator: AL				
Term:	Nursery	Reception	Year 1	Year 2
	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:
Autumn Heroes and Villains	The process of investigation Follow these steps of investigation - Say what might happen - Say what happened.	The process of investigation Follow these steps of investigation - Say what they think will happen - Identify what happened - Question why things happen Senses Know the 5 senses sight smell taste hear touch Light - Know light comes from the sun.	The process of investigation Follow these steps of investigation - Predict - Perform simple tests. - Gather data. Materials Identify materials (as in YR and include) - glass - fabric - rock Know the different between the name of an object and the material it is made from. Seasons - Know there are different sorts of weather across seasons - Know trees change with the seasons	The process of investigation Follow these steps of investigation - Predict - Perform simple tests. - Gather data - Record data Materials identify materials (as Y1 and include) - Brick - Cardboard Know materials have properties. Know their properties make materials suitable for a use. Animals including Humans - Know that animals including humans produce offspring. - Know exercise is important. - Know that humans need to eat a variety of groups of food. - Know animals need water, food, air and shelter to survive
	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts
	Can you say what might happen? What did happen?	Can you say what you think will happen? Can you tell me what did happen? What are your five senses? Where does light come from?	What is a prediction? What did you find out? What is this material? What is this object called and what material is it made from?	What is a prediction? What information did you collect? What did we find out?

			What weather would you expect in this season e.g. Winter, Summer? What happens to a tree in Autumn/Winter etc	What is this material? What would be a good use for it? What are the properties of these materials? What is offspring? Why is exercise important? Which food should you eat less of? What 4 things do animals need to survive.
	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:
Spring What a wonderful world	CYCLE A The process of investigation Follow these steps of investigation - Say what might happen - Try out ideas - Say what happened. Plants - Identify plants including trees. - Know key parts of a bean plant. leaf seed/bean - Know a plant grows from a bean/seed. CYCLE B The process of investigation Follow these steps of investigation - Say what might happen - Try out ideas - Say what happened. Plants - Identify plants including trees. - Know key parts of a sunflower. leaf seed flower - Know a plant grows from a seed. - Know a tadpole grows into a frog.	The process of investigation Follow these steps of investigation - Say what they think will happen - Identify what happened - Question why things happen Seasons - Know there are 4 seasons Autumn Spring Summer Winter - Know 4 types of weather Sun Rain Snow Fog Animals - Know the life cycle of a chick a chick hatches from an egg a chick grows into a chicken a chicken lays an egg	Animals including Humans Identify and classify animals into - Birds - Mammals - Reptiles - Fish Identify and name a common animal that is a - Carnivore - Herbivore Know parts of the human body - Foot - Knee - Hair - Neck - Hand - Shoulder - Face - Teeth Know the five senses and the body parts responsible for them	The process of investigation Follow these steps of investigation - Ask simple questions - Predict - Perform simple tests. - Gather data - Measure by using standard units of measurement - Record data - Conclude Habitats Know that there are characteristics that something needs to be classed as alive. know different habitats provide the basic needs of different kinds of animals and plants identify and name plants and animals in their habitats including microhabitats Know a food chain is where animals obtain their food from plants and other animals

	Know a caterpillar grows into a butterfly.			
	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts
	Can you say what might happen? What did happen? CYCLE A What parts of a bean do you know? What does a bean plant grow from? CYCLE B What parts of a sunflower do you know? What does a sunflower grow from?	Can you say what you think will happen? Can you tell me what did happen? Why did that happen? What are the 4 seasons? What are 4 types of weather? Tell me about the life cycle of a chick.	Can you say which group of animals this animal belongs to? (show picture). Show me an animal that is a carnivore/herbivore. What do they eat? What are these parts of the body? Can you show me what part of the body you smell with etc?	What information did we collect as a tally? Name a plant/animal and its habitat. What is a food chain? Could you add plants and animals to this food chain?
	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:	Planned key knowledge:
Summer Amazing Adventures	CYCLE A Animals - Know animals have babies - Know parts of the body head body arms legs. Materials Identify materials - metal - plastic - wood CYCLE B - Know some dinosaurs just eat meat. - Know some dinosaurs just eat plants - Know dinosaurs hatch from eggs. meat plants egg	The process of investigation Follow these steps of investigation - Say what they think will happen - Identify what happened - Question why things happen Animals Know the life cycle of a butterfly - a caterpillar hatches from an egg - a caterpillar forms a cocoon - a butterfly emerges from a cocoon Identify and classify animals into - Birds - Mammals - Insects - Fish Materials Identify materials (as in YN and include) - paper Identify a material that sinks	Plants Identify and classify deciduous trees and evergreen trees. Know key parts of a plant - flowers - fruit - roots - bulb - trunk - branches - stem	The process of investigation Follow these steps of investigation - Predict - Perform simple tests. - Gather data - Record data - Conclude Plants Know seeds and bulbs grow into mature plants Know how plants need water, light and a suitable temperature to grow and stay healthy

	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts	Knowledge Prompts
	CYCLE A Who has babies? What are these parts of the body? What material is this? CYCLE B What do dinosaurs eat? How do dinosaurs have babies?	Can you say what you think will happen? Can you tell me what did happen? Why did that happen? Tell me about the life cycle of a butterfly. What is happening here? (show picture) Can you say which group of animals this animal belongs to? (show picture). Find me something that sinks, what material is it made from?	What type of tree is this? What makes it deciduous/evergreen etc? Show me these parts of a plant/tree.	What is a prediction? What test did we do? What information did you collect? How did you write this down? What did this show you? What does this plant grow from? What four requirements does a plant need to grow?