Science Builder (by the end of.....)

Yr 2		Yr 4		Yr 6	
Questions (Learning)	Answers (Knowledge)	Questions (Learning)	Answers (Knowledge)	Questions (Learning)	Answers (Knowledge)
Animals What are the 5 senses? What do we call animals that eat only plants? Can you name me a specific animal that only eats meat? Name the groups of animals, which have a backbone? What are animals without bones called? Why are nutrients important human beings? Why? Can you name the 5 food groups Which group would a potato belong? **Plants** What are the parts of a plant? How does the root help the plant? Why are the leaves green? What does the seed need to grow? **Habitats** How can you tell if an animal is living or dead? What is a home of a plant or an animal called? Give the habitat of a camel, lion, polar bear, cactus, shark **Materials** What material can an eating plate made of? Which material will you use to keep the ice-lolly from melting and raincoat? **Seasons** Do you live in a cold country or hot country? Why do you think that?	See, touch, smell, taste, hearing Carnivore/ Herbivore Mammals, birds, fish, reptiles and amphibians Vitamin and minerals. Protect from diseases Fruit/vegetable, carbohydrates, diary, fat and carbohydrate Root, stem, leaf and flower Function of a root—it holds the plant and absorbs water and minerals from the soil to make the plant grow. Leaves have chlorophyll which traps the sunlight and makes starch /food for the plant.—Photosynthesis. Plants grow from seeds. 7 life-processes of a living thing Habitat Different types of habitats. Types of materials: plastic, paper, metal, polystyrene Properties of materials: Insulator, water-proof Difference between weather and climate	**Animals—Moving and Growing** What are the functions of the skeleton? Which is the longest and the shortest human bone? How do the muscles help you move? What are the functions of the teeth? How will you keep your teeth healthy? How do you the ears help you hear? **Plants and Habitats** Which part of the plant helps in reproduction? How does the water and minerals reach the whole plant? Which soil is good for growth of plants? What will happen if you kill all goats? Why are pandas endangered? **Materials—Electricity** Which material will you use to make a switch? What does a switch do? What do you use in a torch and how does your oven work? How will you keep safe while using electricity? **Materials –Magnets/Forces** What can pull and push do? What happens when you bring two magnets near each other? Give 3 uses of magnets **Materials—Rocks** What are 3 types of rocks? Which rock out of chalk, granite or limestone will you use as a kitchen top? Why? In which rock will you find a fossil? **Materials—Light** Will you use cellophane or a card to make a shadow? What happens to your shadow at midday and in the evening? What are the two types of eclipses?	Functions of the skeleton: movement, support, protection, make blood cells and store minerals. Name few bones in the body Muscles attach to bones helps us move, bend, stretch. 3 types of teeth Structure of a tooth Sugars in the food cause tooth decay How sound travels Sound needs a medium to travel Human ear Parts of flower and pollination Functions of a stem—Transport water and minerals, support and keeps the leaves in the sunlight Soil profile and permeable soil Food chains and food web Human activities destroy habitats Conductors and insulators of electricity. a circuit is the path along which electricity moves Mains and batteries Hazards of using electricity Different types of forces— change shape, change speed and change direction Attract, repel, north pole and south pole Uses of magnets in daily life Rock cycle Name of few rocks Properties of rocks: Permeability and hardness of rocks What is a fossil and how a fossil is formed Light travels in a straight line How is a shadow formed The size of shadow depends on the distance of the object from the source of light Real life examples of shadows formation	**Animals—** What are the stages in the life cycle of butterfly? (insect) How is it different from that of a bird?(Aves) and a cat(mammal) What is an organ? What organs make up your digestive system? How does your body throw out the solid waste?/ Why is your poo brown? How will you keep your lungs healthy? How the blood does flows through your body? How will you keep your heart healthy? **Plants(microorganism)/Habitats /Evolution** Why a camel is called a ship of the desert? How is a cactus adapted to survive in a desert? How is a polar bear adapted to live in the arctic ocean? Why do we need to study fossils? Can you grow plants from stem or root instead of a seed? What is yeast? Why is it used in making bread? Can you get back the flour when you have baked it to make bread? **Forces** Why do things move or remain in their place? Why does a ball stop after sometime after it has been kicked? How will you make a paper glider or a spinner stay in flight for a longer time? Why planets stay in an orbit? Why do you have tides? **Light** Why do we have day and night? Why do we have seasons? Why can you see yourself in a shiny surface? How is a camera like your eye? Why do we have solar and lunar eclipse? Why do we see a rainbow? **Electricity** Why does your Christmas lights do not work if one bulb fuses? Why can you make an oven work and keep the microwave switched off? What is a fuse? What do you mean by the bulb is fused?	Life cycles Digestive System Journey of the food through the digestive system Respiratory system Ill effects of smoking Circulatory system Balanced diet Role of exercise, sleep and water Less fatty food, no smoking, no drinking alcohol , exercise, healthy lifestyle Adaptations Evidence of evolution Asexual reproduction Microorganism Advantages and dis advantages of microorganism Mixture Solution Reversible and irreversible change Balanced and unbalanced forces Types of forces: frictional, air resistance, gravitational force Air resistance Gravitational force Planets, star Solar system Moon gravitational pull Phases of moon Shadows Earth is tilted Reflection Light travels in a straight line How a human eye works Solar eclipse—moon shadow on sun Lunar— earth shadow on the moon refraction Series circuit Parallel circuit Current is measured in mA Voltage Resistance

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