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| Year | Term | **Topic** | **In school** | **Helpful hints at home:** |
|  3 | Autumnterm | **How can Usain Bolt move so quickly?****Animals (including humans)** | * The children will:
* identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
* identify that humans and some other animals have skeletons and muscles for support, protection and movement.
 | The children could find out how the food is transported by the blood to the various muscles in the body. Children could time themselves running and then create graphs to make comparisons with Usain Bolt’s time.Find out information about Usain Bolt and what he has to do in order to be the fastest runner in the world.Sketch what the skeleton looks like as it moves from crouch to upright position. Look at artists such as Giacometti and Thomas Heatherwick. |
| 2nd half Autumn | **How far can you throw your shadow?****Light** | * The children will:
* recognise that they need light in order to see things and that dark is the absence of light
* notice that light is reflected from surfaces
* recognise that light from the Sun can be dangerous and that object
* find patterns in the way that the size of shadows change.
* there are ways to protect their eyes
* recognise that shadows are formed when the light from a light source is blocked by a solid
 | You could make shadows at home using a torch. Can your child change the size of the shadows? How did they make it bigger or smaller? What did they change?Make animals using your hands to cast shadows against the wall.Visit old buildings and churches and look at stained glass windows and how the light shines through the glass to create colours. |
| Spring | **What do rocks tell us about the way the Earth was formed?****Rocks and soils** | * The children will:
* compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
* describe in simple terms how fossils are formed when things that have lived are trapped within rock
* recognise that soils are made from rocks and organic matter.
 | You could look at buildings in cities and towns when you are out. Look at the differences between the stones. Can you find out what kind of stones they are and where they come from? Go to the library and find some books about rocks and soils to read. Find out which rocks have grains or crystals, and whether they have fossils in them.Make a rock sculpture and take a photo to bring into school to show everybody. |
| Summer | **How do plants grow?****Plants** | The children will:• identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant • investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. The  | You could make a fruit salad at home and whilst chopping up the fruit, look closely at the insides of the fruit and the seeds.Go for a walk in the woods and draw pictures of the different plants and trees Are there any plants where you can see the roots?Pick some flowers from the garden and look at different parts of the plant. |
|  | 2nd half Summer | Can you feel the force?Forces and magnets | * children will:
* compare how things move on different surfaces
* notice that some forces need contact between two objects, but magnetic forces can act at a distance
* observe how magnets attract or repel each other and attract some materials and not others
* compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
* describe magnets as having two poles
* predict whether two magnets will attract or repel each other, depending on which poles are facing.
 | Encourage your child to find a magnet in the house and test different surfaces made of metal to see which are magnetic,Use two magnets and see if they attract or repel each otherFind out about magnets and forces on the internet – how are magnets made? |