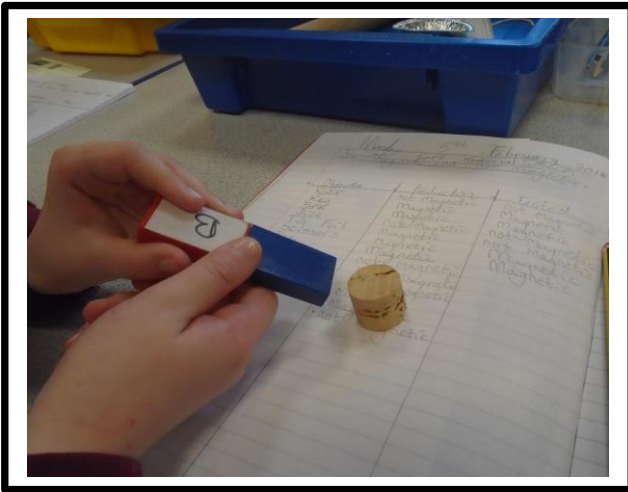


Science Newsletter Spring Term

In Reception we began the term by learning about the season of winter.

Next we were excited to learn all about dinosaurs. We identified and named a range of dinosaurs and found out that some are herbivores and some carnivores. We know that we do not have dinosaurs on the planet anymore and we have found out what happened to them.

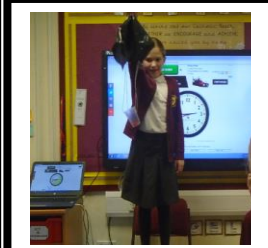
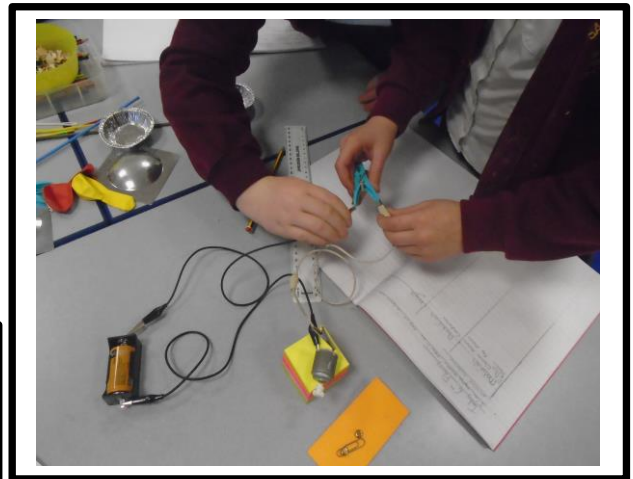
In Year 1 we have had fun exploring the difference between an object and the material from which it is made. We can now identify and name lots of materials, including wood, plastic, glass, metal, water, and rock and can describe simple physical properties using scientific words such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent. We have performed simple tests to find the best materials for chosen jobs.



In Year 2 we identified and compared the suitability of a variety of everyday materials, for particular uses. We know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. We have observed closely, identified and classified the uses of different everyday materials in and around the school and compared with materials found in other places.

In Year 3 in our work on Forces we have compared how things move on different surfaces and noticed that some forces need contact between two objects, but magnetic forces can act at a distance. We have explored how magnets attract or repel each other and attract some materials and not others. We identified some magnetic materials. We predicted whether two magnets will attract or repel each other, depending on which poles are facing. We explored questions such as: **Does magnetism pass through or attract different materials? Which magnet is strongest? Are bigger magnets stronger? Are all metal objects attracted to a magnet?**

In Year 4 we identified common appliances that run on electricity. We constructed a simple series electrical circuit, identifying and naming parts, including cells, wires, bulbs, switches and buzzers. We can now identify whether or not a lamp will light based on whether or not the lamp is part of a complete loop with a battery. We found out that a switch opens and closes a circuit and creates a break in a simple series circuit. We explored questions such as: **How is the brightness of the bulb affected by number of batteries/length of wire/thickness of wire/type of wire? Which materials conduct electricity the best?**



In Year 5 we explained that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. We explored the effects of air resistance, water resistance and friction that act between moving surfaces. We explored how air resistance affects our ability to run and how the type of material/weight added/shape/ making holes affect the falling time of a parachute. We understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs. We explored how moving the fulcrum on a lever affects the force needed to move an object.

In Year 6 we have compared and given reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. We can now use recognised symbols when representing a simple circuit in a diagram. We can identify the effect of changing one component at a time within a circuit. We have applied our understanding of electricity and electrical components to designing and making a set of decorative lights, which include a dimmer switch.