|  |
| --- |
| **Science Curriculum Coverage and Progression – Forces** |
| **NC**  | **Nursery**  | **Reception** | **Year 1**  | **Year 2**  | **Year 3**  | **Year 4**  | **Year 5**  | **Year 6**  |
| **Forces** | Explore and talk about different forces they can feel..   | Learn new vocabulary.Ask questions to find out more and to check what has been said to them.Articulate their ideas and thoughts in well-formed sentences.Describe events in some detail.Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.Use new vocabulary in different contexts.  |  |  | * compare how things move on different surfaces;
* notice that some forces need contact between 2 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 2 poles;
* predict whether 2 magnets will attract or repel each other, depending on which poles are facing.
 |  | * explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object;
* identify the effects of air resistance, water resistance and friction, that act between moving surfaces;
* recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.
 |    |
| **Vocabulary Progression** | Earth, moon, sun, star | Earth, moon, sun, star, space, planet |  |  | * How things move: move, movement, **surface**, distance, strength.
* Types of **forces**:push, pull, contact force, non-contact force, **friction**.
* **Magnets: magnetic, magnetic field,** magnetic force, bar magnet, horseshoe magnet, ring magnet, magnetic **poles** (north pole, south pole), **attract, repel,** compass.
* Magnetic and non-magnetic materials: e.g. iron, nickel, cobalt.

Previously introduced vocabulary: metal, names of materials. |  | * .Types of forces: **air resistance, water resistance, buoyancy, upthrust,** Earth’s **gravitational pull, gravity**,opposing forces, driving force.
* **Mechanisms:** levers, pulleys, gears/cogs.
* Measurements: **weight, mass,** kilograms (kg), Newtons (N), scales, speed, fast, slow.
* Other: **streamlined**, Earth.

Previously introduced vocabulary:air, heat, moon. |  |