Science Knowledge Organiser: Year 2 - Spring Term

Forces – Pushes, pulls and effects – *How does the type of material affect how fast a ball rolls down a slope?*

What we already know:

- Year R – Magnets have a force which pull and push against each other
- Year 2 – Materials can be changed with physical force – pulling, stretching, pushing, squishing

Key Vocabulary:

* Motion
* Pushing
* Pulling
* Slow down
* Speed up
* Direction

What we are going to learn:

- 1) Objects can move (be in Motion) in various ways-roll, slide and bounce
- 2) The pushing or pulling of an object can affect its motion.
- 3) Pushing or pulling can do three things, slow down, speed up or change the direction of an object.
- 4) The larger the push/pull the bigger the effect on motion
- 5) Materials – find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching,
- *Year 3 - Compare how things move on different surfaces*
- *Year 3 - Notice that some forces need contact between two objects*

What we are going to learn next time: Year 3 - magnets

- Magnets exert attractive forces on some metals
- Magnetic forces work through other materials including air, so magnets don't need to be touching to exert their force. It is called a non-contact force
- Each end of a magnet is called a pole, opposite poles are called north and south.
- Magnets exert attractive forces on each other when the poles facing each other are north and south (opposites).
- Magnets exert repulsive forces on each other when the poles facing each other are the same.
- The strength of magnetic forces is affected by:
  - The strength of the magnet.
  - The distance between the magnet and the object.
  - The material the object is made from.