Science- Year 5

Autumn 2– Marvellous Mixtures

In Science, I have learnt:

To compare and group materials together, according to whether they are solids, liquids or gases.
To observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C).
To identify the part played by evaporation and condensation in the water cycle.
To make predictions and say why using my prior knowledge.
To explain what we are changing, measuring and keeping the same in a fair test experiment.
To use measuring equipment (measuring cylinders) to ensure accuracy in my experiment.
To include detailed observations and quote my results in my conclusion.

solid, liquid, ice, temperature, degree Celsius, melt, melting, freeze, freezing, solidify, solidifying, heating, states of matter, change of state, melting point, freezing point, process, gas, volume, evaporate, evaporation, water vapour, boil, boiling, boiling point, steam, thermometer, condense, condensation, observe, measure, fair test, variable, collect, present, interpret, data, scale, interval, control, keep the same, evidence, annotate, accuracy, describe, explain, evaluate, reliable, repeatable.

I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

I can explore changes that are difficult to reverse.

<u>Working Scientifically</u>

I can design my own experiments to solve a problem:

- **My prediction says what I think will happen and why. I have used a range of scientific vocabulary and drawn on my prior experiences, including previous experiments in this topic.**
- **I select appropriate equipment to use considering accuracy and precision.**
- **I can identify if the experiment is a 'fair test' experiment. If so, I can identify what needs to be changed, stay the same and measured.**
- **I can record my results in a table** and can draw a line graph in lesson 4. I can select the best way to collect and present my evidence in lesson 6.
- **I can draw a conclusion based on my results and say whether this supports my prediction.**
- **I can evaluate my experiment and suggest improvements.**

<u>Scientific enquiry type:</u>

Grouping and classifying
Observation over time
Carrying out a fair test
Finding things out using secondary sources of information

New Science words:

material, change, compare, contrast, **solid, liquid, gas, change of state, reaction, dissolve, melt, reversible, non-reversible,** material, mixture, powder, particle, tablet, bubbles, inflate, carbon dioxide, change, reaction material, **rust, oxidise,** oxygen, corrode, tarnish; types of metal: iron, steel, chromium, tin, zinc; vapour, fuel, oxygen, heat, burn, burning, flammable, flame, melts, solidifies, candle, wick, wax, powder, particle.