Water experiment lesson

CURRICULUM LINKS

Learning objectives:

- To understand that water exists in three different states
- To understand that water is made of molecules
- To experience some of the qualities of water through experimentation, in particular
    - Water as a magnifier
    - Water and refraction
    - Water and surface tension

Links to the curriculum:

<u>Levels 1 and 2</u>

Understanding about science

- Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation

Investigating in science

- Extend their experiences and personal explanations of the natural world through exploration, play and asking questions

Communicating in science

- Build their language and develop their understandings of the many ways the natural world can be represented

Participating and contributing

- Explore and act on issues and questions that link their science learning to their daily living

<u>Levels 3 and 4</u>

Understanding about science

- Appreciate that science is a way of explaining the world and that science knowledge changes over time
- Identify ways in which scientists work together and provide evidence to support their ideas

Investigating in science

- Build on prior experiences, working together to share and examine their own and others' knowledge
- Ask questions find evidence; carry out appropriate investigations to develop simple explanations

Communicating in science

- Begin to use a range of scientific symbols, conventions and vocabulary

Participating and contributing

- Use their growing science knowledge when considering issues of concern to them
- Explore various aspects of an issue and make decisions about possible actions.

Levels 1 and 2

Physical world

Students will:

Physical inquiry and physics concepts:

- Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
- Seek and describe simple patterns in physical phenomena.

Material world

Students will:

Properties and changes of matter

- Observe, describe, and compare physical and chemical properties of common materials and changes that occur when materials are mixed, heated, or cooled.

Chemistry and society

- Find out about the uses of common materials and relate these to their observed properties.

Level 3

Material world

Students will:

Properties and changes of matter

- Compare chemical and physical changes.

Chemistry and society

- Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes

Level 4

Material world

Students will:

- Compare chemical and physical changes.

The structure of matter

- Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.

Chemistry and society

- Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes