Learning Intentions
John Boyd Dunlop

Suggested Learning Intentions

We are learning to:

- understand why John Boyd Dunlop's innovation was so important;
- understand how air can be trapped and used to create movement or do work;
- make realistic predictions based on what we know before conducting a number of scientific experiments; and
- conduct a series of scientific experiments and use their findings to learn more about pneumatics.

Curricular Links

The activities within this lesson will contribute to the following statutory aspects of the Northern Ireland Curriculum:

The World Around Us

Movement and Energy

Pupils should be enabled to explore:

- the causes and effect of energy, forces and movement.

Thinking Skills and Personal Capabilities

Thinking, Problem-Solving and Decision-Making

You should help your pupils discover how to:

- make predictions, examine evidence, and distinguish fact from opinion;
- generate possible solutions, try out alternative approaches, and evaluate outcomes.

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Being Creative
You should help your pupils discover how to:

- make ideas real by experimenting with different designs, actions, and outcomes;
- challenge the routine method.

Connected Learning Opportunities

Mathematics and Numeracy
Ask children to display the results of the experiments in this lesson using bar charts and line graphs.

This lesson also can be connected with CCEA's 'Wind' Thematic Unit.

Assessment for Learning Idea!

Giving Praise
Praise the process rather than the ability. This will help foster a 'growth mindset' rather than a 'fixed mindset'. For example, in the lesson, praise children for conducting the experiments in a fair way and making notes about their tests, rather than getting the 'right' result.

New Words and Phrases

- pneumatics
- forces
- pressure
- inflate/deflate