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Design a Sculpture From Recycled Aluminium Cans

Topic: Recycling

Background Information:

Aluminium is one of the world's greatest recyclable materials and everyone can play a part.

Did you know that that of the 680 million tonnes of aluminium produced in the world since 1888, some 400 million tonnes are still in use?

Aluminium cans, aluminium off-cuts and other aluminium products, such as aluminium windows and roofs can be recycled and reused time and time again. Recycling one aluminium can saves enough energy to run a television for three hours.

You Will Need:

Somewhere to store lots of aluminium cans
Collection boxes (these can be recycled after the activity)
Aluminium cans (to be recycled and cleaned)
A3 paper
Graph paper
Pencils
Rulers

What You Need To Do:

- As a class collect and wash recycled aluminium cans from home and bring to school
- At the end of each day or once a week count and weigh the cans that have been collected then graph the results
- While the cans are being collected design a sculpture that is a form of transport (e.g. car, boat, plane).

- Design a sculpture for the whole class to build. You will need to consider, how will the cans be held together, how will you store the sculpture, how heavy the sculpture will be, how you will transport the sculpture if is to be displayed.
- When enough cans have been collected build the sculpture for display.

Extension/Alternatives

- Calculate the weight of 10 cans.
- How many cans in one kilogram?
- How many cans could you recycle from the whole school? What would they weigh?
- How does a sculpture made from aluminium compare to a sculpture made from other materials?

Discussion:

What are the implications of light weighting for the transport industry?

Curriculum Links:

Society & Environment: Communication & Participation, Resources, Active Citizenship
Science: Investigating, Natural and Processed Materials
Technology and Enterprise: Technology Process, Materials, Enterprise
Mathematics: Chance and Data, Measure