

## Design and make a Land Yacht (suitable for 3<sup>rd</sup> – 6<sup>th</sup> classes)

### Strand Unit- Forces

- Exploring how objects may be moved by air.

Task: Design and make a wheeled vehicle that is powered by a sail. A hairdryer could be used to act as the wind when testing the land yacht.

### Materials:

- toilet roll holders
- plastic/aluminium cartons
- spools
- lengths of wooden dowel or string drinking straws
- card wheels
- kitchen towelling,



### Exploring

- Investigate the different materials and decide which are best for use in the land yacht.
- Explore different fabrics for the sails, which are best?
- What objects would make suitable wheels?

### Planning

- Draw what your land yacht will look like.
- Devise some criteria such as
  - The vehicle should travel in a straight line and a distance of at least 20cm when placed in front of a working hairdryer.
  - The vehicle should have a working sail.
  - The vehicle should have either a fixed axle or a fixed wheel. You decide!

### Making

- Build your land yacht using the selected materials.

### Evaluating

- Does the land yacht work well?
- Does land yacht fulfil the criteria?
- How could it be improved or changed? Do my class mates have any ideas?
- Could I make it strong enough to carry a load a certain distance?