

Project: JOURNEY - Carry a small chocolate bar 2 metres in a straight line on a wind powered vehicle  
 Outline: Learners work as a team of three to design (independently at first )and then as a team to create a wind powered vehicle with a sail to carry a small bar of chocolate 2 metres in a straight line , powered by a fan (wind power). The vehicle can be made from recycled materials + balsa wood/ wood, card/ foam board. The vehicle will need to travel independently and but judged upon: line travelling; speed & distance

#### Independent Enquirers

- Identify which materials are lightest—woods balsa/ pine or use plastics. Question which construction method would be suitable. Three or four wheels
- Measure the chocolate bar for size.
- Work out problems as they are constructing
- Consider others feelings when making decisions

#### Creative thinkers

- Generate at least 3 ideas independently through sketching
- Ask questions about the Construction make improvements
- Combine ideas to create one vehicle
- Test out their vehicle to try new ideas and adapt and modify the design

#### Reflective learners

- Evaluate their work and their performance, throughout the project
- Each team present their final design after the 'race' and contribute to an open evaluation from the other teams

#### Team workers

- Work as a team to modify designs and create 1 design to make together
- Give a talk to the other teams on the final and make constructive criticisms about others designs
- Work safely and responsibly using the target planning to inform making

#### Self-managers

- Create own designs and plans
- Try out and test the final design during making to identify changes
- Listen to evaluations from team members and other members of the class act upon them where necessary

#### Effective participators

- Discuss with the team, the combining ideas and making
- Each student presents their own design to be discussed with others
- Meet with others to create the plan of manufacture
- Discuss changes as they occur resolving conflicts.

Time scale: 2 hours    Session 1 - independent sketch of a 'vehicle' with a sail and wheels— team of 3 meet and select 1 idea for making.

Session 2— team make and test idea as they are putting it together.