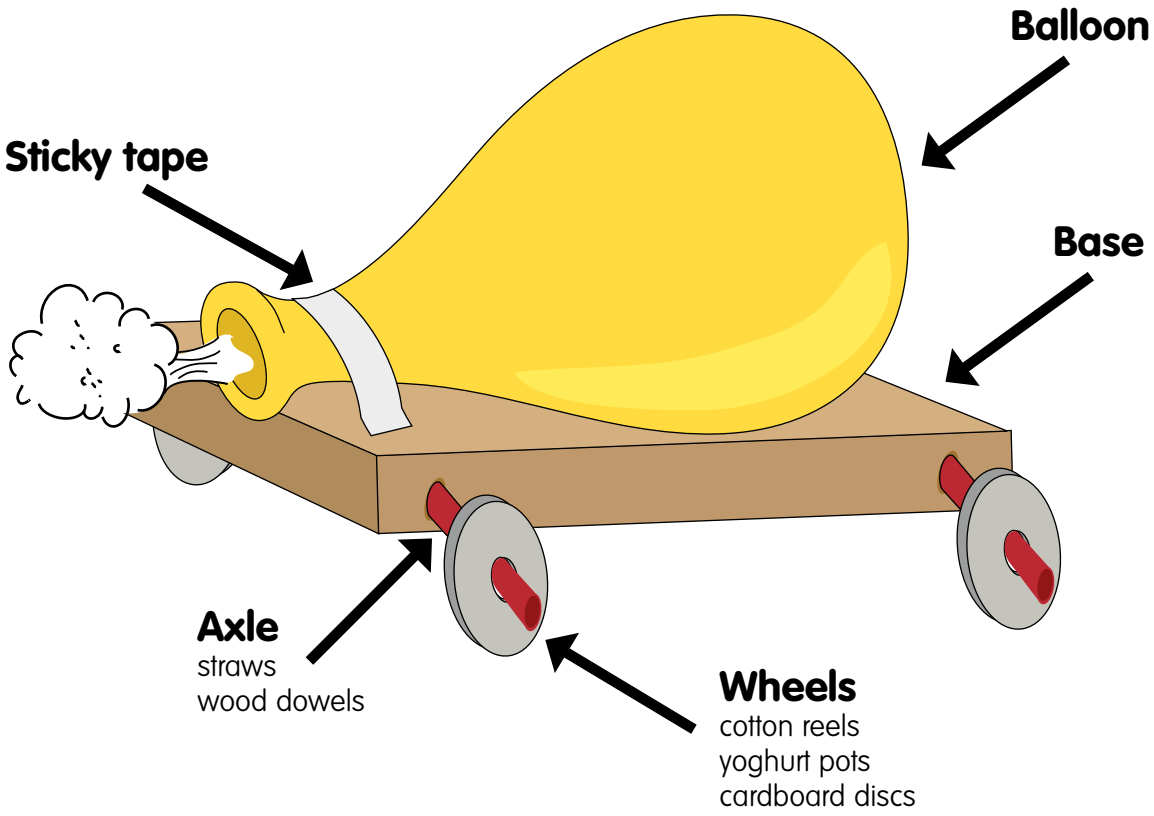
Rolls-Royce

Balloon Buggy Investigation

For pupils aged 7-11

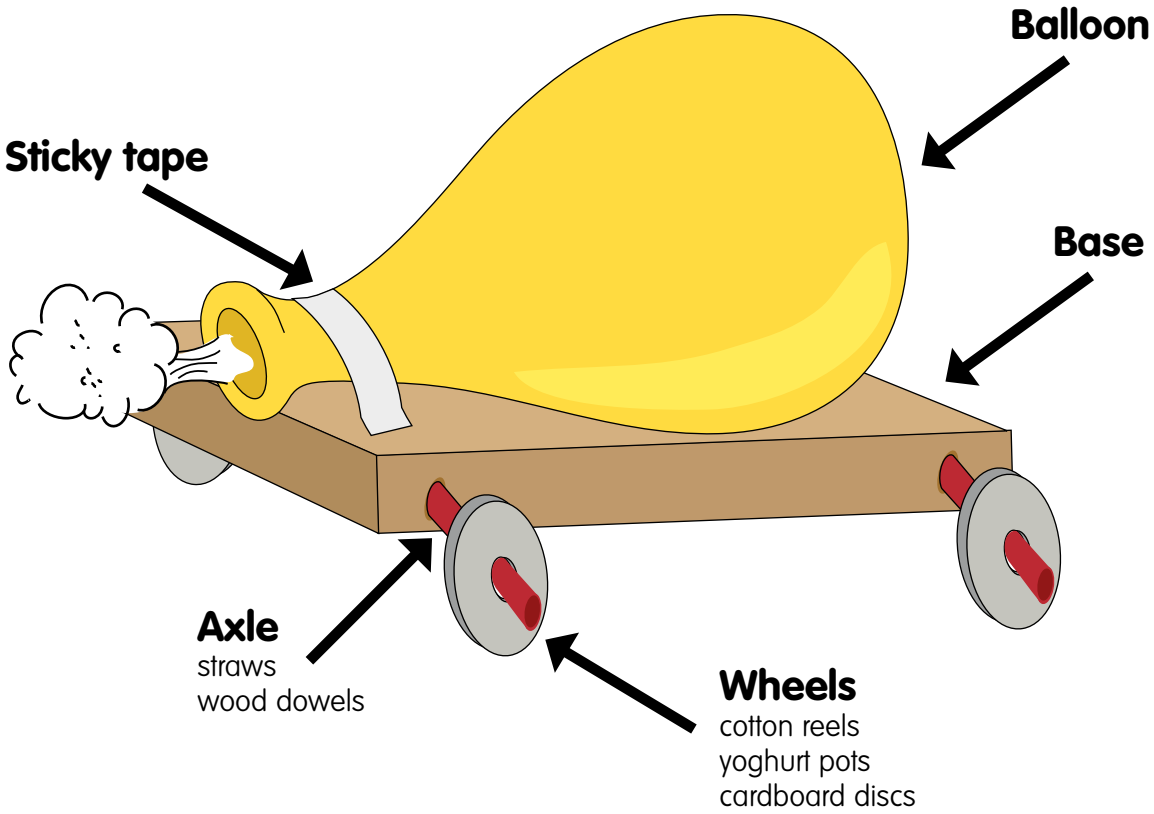
Activity sheet



This Activity Sheet is provided by Rolls-Royce plc as part of our continuing commitment to education

Balloon Buggy Investigation

You can build a balloon buggy using the diagram below to help you with the design.



When you have tried the buggy out a few times, think of things you could change about the buggy that would affect how far it goes. In your group make a list of as many as you can. Two ideas are given below to start you off:

- The type of balloon
- The size of the wheels.

When you have written down as many as you can, decide on one idea from the list to investigate.

Balloon Buggy

Balloon Buggy Investigation

Write your idea down as a question, for example:

What will happen to how far the buggy goes when we change the type of balloon?

Try to make a prediction and if you can give a reason for it, for example:

The bigger the balloon the further the buggy will go. We think this will happen because a bigger balloon will have more air in it to push the buggy.

Write your own question and prediction in the spaces below.

Question

Prediction

Now set up your buggy and do some runs to test your prediction. Remember to:

- Work as a team
- Make sure you do a fair test
- Take measurements and write your results down in the table.

Use this column to record the thing you changed about the buggy

	Distance Buggy Travels (m)

Balloon Buggy Investigation

Now think about what your results tell you:

- What did you find out?
- Was your prediction correct?
- Is there a pattern in the results?
- Could you improve your investigation?

Use the space below to write a conclusion to your investigation that answers these questions.

Conclusion

Further investigations on air resistance

If you have time you could write another question which investigates a change you make to the buggy.

Or you could:

- Make a change to the surface the buggy runs on
- Measure the speed the buggy goes at rather than how far it goes.