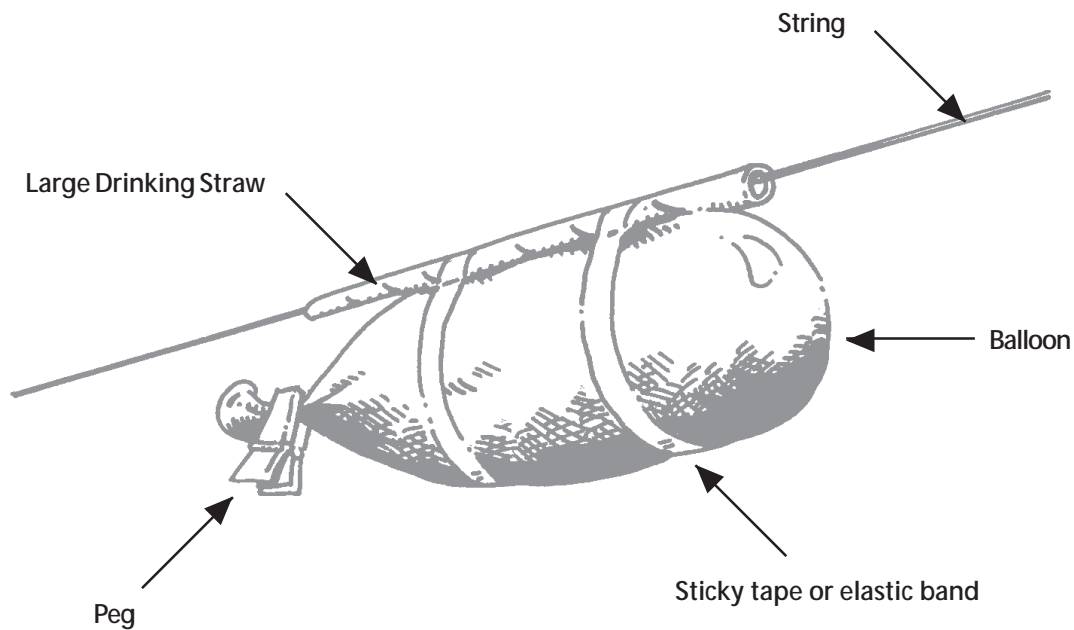


Balloon Rocket Investigation

You can build a balloon rocket using the diagram below to help you.



Blow up the balloon using a balloon pump and use a peg to keep the air in. Use tape or elastic bands to fix the balloon to the drinking straw. Thread a long length of string through the straw, stretch the string tight and let the balloon go.

When you have tried the rocket balloon a few times try to think of things that you could change about the balloon or string that would affect how far the balloon goes along the string. In your group make a list of as many as you can. Two ideas are given below to start you off:

- Type of string
- How much air is in the balloon

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



Balloon Rocket Investigation

Write your idea down as a question, for example

What will happen to how far the balloon rocket goes when we use thicker string?

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

With thicker string the balloon rocket will not go as far. We think that thicker string will rub more against the straw and this will stop the balloon rocket going as far.

Write your question and prediction in the spaces below

Question

Prediction

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



Balloon Rocket Investigation

Now set up your rocket balloon 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 below

	Distance Balloon Travels (m)



Use this column to record the things you changed about the rocket or the string

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?



Balloon Rocket Investigation

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

Conclusion

Further investigations using the rocket balloon

If you have time you could write another question which investigates a change you make to the rocket balloon. Or you could:

- Time how long it takes the rocket balloon to go right along a length of string so that you were comparing speed rather than measuring how far the rocket went.
- Change the design of the balloon rocket so it pushes a small boat along, and then carry out some investigations.