

LO: To set up a fair test to test the strengths of different bags.

What makes a good carrier bag?

- Strong – doesn't tear
- Handles that don't hurt your hands
- Size – large enough/too large
- Cost – does not cost too much

Any more ideas?

Mr Bryant



We are a local shop, and mostly sell tins and packets of food, plus some fruit and veg, such as potatoes. My customers are often local and don't have cars. They need to be able to carry their shopping from my shop to their houses. This means our carrier bags need to have comfortable handles, so that they don't cut into customers' fingers.

Your task today is to explore a range of carrier bags to determine their effectiveness.

You will then plan a fair test investigation to help you to design a new carrier bag that Mr Bryant can give to his customers.

Spend some time gathering and exploring a range of different carrier bags.

What similarities do you see?

What differences are there?

Follow the steps on the following slides to investigate which of your carrier bags is the BEST!

Ideas for Method

How can we test the strength of plastic bags?

Fair test – what do we need to do to make the test fair?

What variables must we keep the same (constant) each time?

Materials/Equipment

What things do we need to complete this test?

Method

Explain what you are going to do to test the bags' strengths.

Diagram

Draw a diagram to support your explanation in the Method.

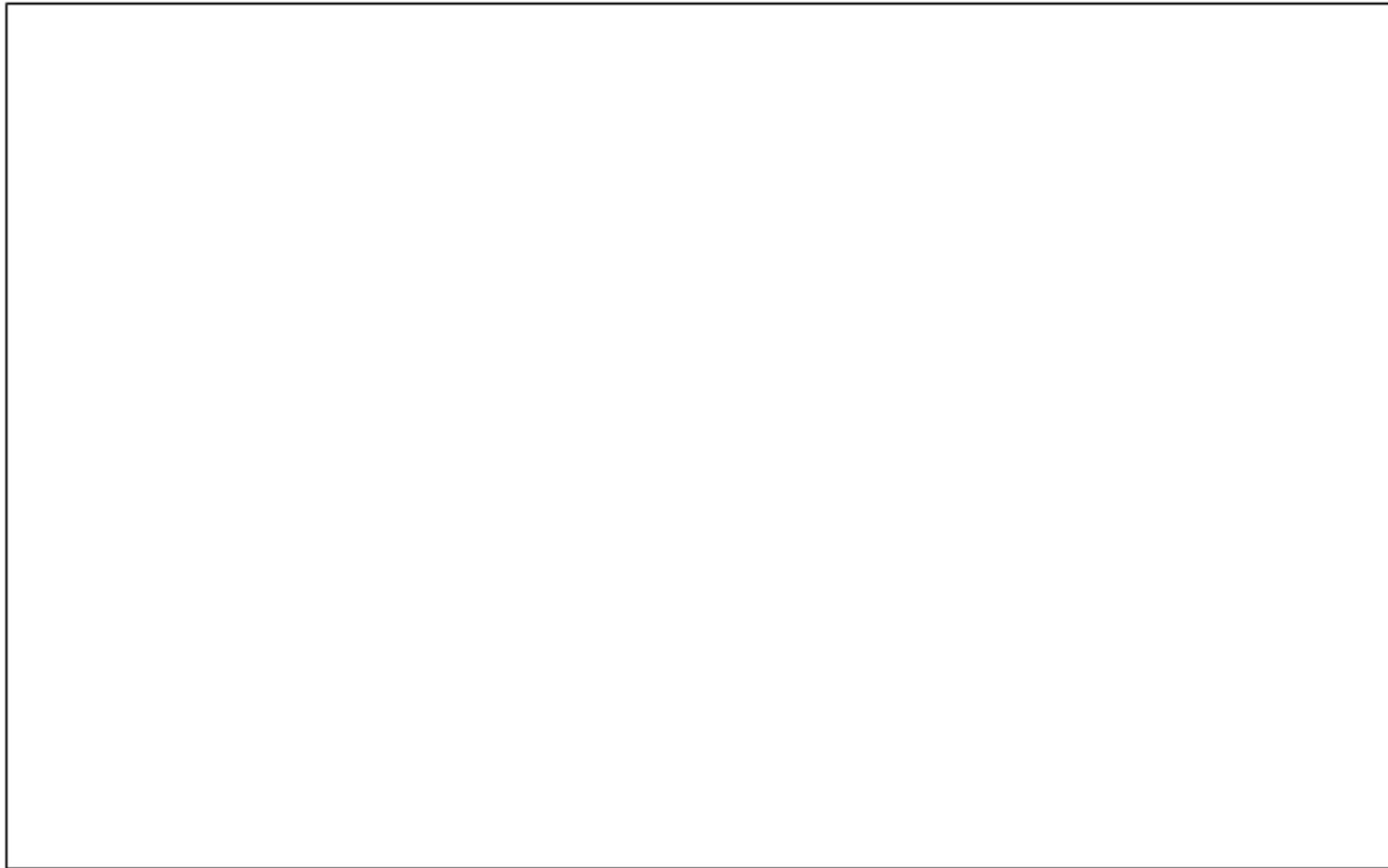


Table of Results

Bag name	Made of...	Breaking contents	Breaking Weight

Conclusion

Make some concluding statements about your results using **comparative** language,
ie. Weaker, stronger, longer time

Extension Questions

Answer these questions in your exercise books.

1. What else could we have considered/tested in our experiment?
2. What were the weakest points of the bags you tested? Was there one place, in particular, that the bags always seemed to break? Why do you think this was?
3. Why *wouldn't* it be a good idea to have tested the strength of a bag by hanging it from a pullmeter (forcemeter) and placing things into the bag until it broke?
4. Is there a link? How would we test this, or find out? Draw a diagram to support your method ideas.