The best mopper upper

This task is about designing and carrying out a fair test.

Part 1 Observations / preparation This part of the task is about using observations to make a prediction. Obtain four (4) different paper towels and look at them carefully.

a)Fill in the first three columns of the table below.

Table 1: Data collected for four (4) different paper towels

	1	2	3	4	5
	Name of paper towel	Describe the texture of the paper towel	Describe or draw the pattern you can see	Amount of water left in the container	Amount of water absorbed by the paper towel
1					
2					
3					
4					

Now that you have looked at the pattern of fibres, you can answer the following questions.

b)i) ***Prediction***: Which paper towel do you think would absorb the most water?

_____

ii)Explain why you chose that paper towel.

_____

_____

_____

_____

Part 2 Planning a fair test

This part of the task is about planning a fair test.

c) Number the steps 1 – 6 (in the last column) to show the correct order that can be used to carry out a fair test on the best mopper upper paper towel.
The first step is identified for you.

STEPS	ORDER
Measure how much water is left in the ice-cream container and record it in the chart.	
Pour 100 mL of water into the ice-cream container.	
Leave the paper towel to drip for a while.	
Test each paper towel individually by starting over again.	1
Work out how much water the towel soaked up and record it in the chart.	
Try to mop up the water in the ice-cream container with one paper towel.	

d) What are you measuring in this investigation?

_____

e) What are you changing that will affect your measurements?

_____

Use the steps above in the order that you identified to carry out the investigation. Record your data in columns 4 and 5 of the table in Part 1.
You used the steps to carry out a fair test but it was not fair. A part of the instruction for one of the steps was left out as well as a complete step.

f) What part of an instruction or step was left out, making this investigation **not** a fair test?

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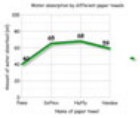
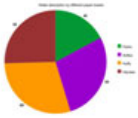
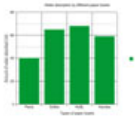
_____

Part 3 Reporting the results

This part of the task is about communicating your results.

g) Circle the type of graph you will use to show the data recorded in column 5.

h) Why did you choose this graph?

_____

_____

i) What does a graph show that information in a chart does not?

_____

_____

_____

Show the teacher which graph you will use before you graph the data.

j) Use the information in the column 5 of the table to draw your graph in the box that follows. The title has been provided for you.

Amount of Water Absorbed by Different Paper Towels

Part 4 Using the results

This part of the task is about interpreting the results.

k) Use the graph to rank the paper towels in order from the best to the worst at mopping up spills.

BEST WORST

l) i) Was your prediction correct? YES / NO (circle one)

Return to Table 1 in Part 1. Look closely at the pattern you described in column 3 and the amount of water absorbed by each paper towel in column 5.

ii) What do you notice about the patterns you described in column 3 (the table in Part 1), how much water the paper towels absorb and your prediction?

m) Why might people want to know about the absorbency properties of paper towels?