

Water is Heavy

Focus

Some people in developing countries of Africa and Asia have to collect and carry all their water sometimes long distances because they don't have water piped to their houses. Some people have had to use buckets to carry washing water out of their laundries to water gardens because water restrictions don't allow them to use outside taps or hoses. Carrying a bucket of water is hard work. What does a bucket of water weigh? Work in small groups to find out.

Materials

- several different sized containers – mug, soft drink bottle, milk bottle.
- measuring jug
- set of scales
- water

Procedure

- Weigh each container empty. Record the weights in the table below.
- Fill jug with various volumes of water; 200ml, 500ml, 1L.
- Use appropriate container and empty jug water into it and weigh again.
- Record the new weight of each container.
- Complete the table working out how much the water weighed for each test.

Hypothesis

- Predict what weight 1.5L, 2L of water would be. Write this down.

1.5L of water weighs _____ 2L of water weighs _____

- Write down the steps you need to carry out.

Results

Container	Empty weight	Added water volume (ml)	Filled weight (gms)	Weight of water (Filled – empty weight)
Mug		200		
Soft drink bottle		500		
Milk bottle		1000		
		1500		
		2000		

- Are there any differences between groups?

Conclusion

- Explain your results, writing a statement to summarise what you have learnt

EXTENSION

- Q How much water will fill a bucket?
- Q How much does a full bucket of water weigh? Calculate the weight then check it on a set of scales.