

# Water Beads – Worksheet

By Louise Lopes based on the workshop by Vicky Tzioumis and Tom Gordon

## Introduction:

You have been commissioned by the government to investigate strange objects found. They are small round clear balls. They were found in water and so were given the name “water beads”. You must investigate them so that you can report back your findings, including some potential uses for them.



## Part A

### Question:

**Aim:** Explore the properties of water beads.

Do they bounce? Do they absorb light? Are there any other properties?

### Conduct:

Have a play with the beads. Make as many **OBSERVATIONS** as you can and record them below:

When you can make no more observations, write ONE of your observations on the board. Choose one that is not already listed.

### Part B

Question:

You will be given additional ingredients and materials. You will need to think of a question and devise your own experiment.

What will be your **independent** variable? \_\_\_\_\_

What will be your **dependent** variable? \_\_\_\_\_

What will be your **control** variables?

Write an Aim and Hypothesis:

Plan:

Describe how you plan on doing your investigation:


Conduct:

Record your results:

A large, empty rectangular box with a thick black border, intended for recording experimental results.

Analyse:

Represent your data graphically **OR** make a drawing of what happened **OR** work through any calculations you have planned to make:

A large, empty rectangular box with a thick black border, intended for graphical representation, drawings, or calculations related to the analysis.

Problem-Solve:

**Present your findings to your class.**

Write a short report on what water beads are by incorporating what you have learnt from your experiment, other groups' experiments and any scientific theory discussed with your teacher:

Can you think of any real-life applications for water beads? Can you think of any commercial, environmental or design uses?

**Evaluate** the reliability of your experiment. Do you believe you were successful? Was there any human error? Are there any ways that the experiment could be improved?

Conclusion:

What is your conclusion? Were you able to achieve your Aim? Were your predictions correct?



References:

Image 1 –

Image 2 –

Image 3 – Professorwayneholt, <[commons.wikimedia.org/wiki/File:Wholesale\\_water\\_beads\\_blue.jpg](https://commons.wikimedia.org/wiki/File:Wholesale_water_beads_blue.jpg)>

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