

Mystery Objects

An exercise in questioning, talking and thinking

Mystery Objects are a great way to get students talking and thinking. They encourage observation and questioning skills, and can provide a hands-on introduction to a topic or discussion. They can also equip students with useful skills to prepare them for a museum visit.

What makes a good Mystery Object?

Good Mystery Objects give clues to their identity through their design, shape, material or age.

The objects do not have to be old or expensive; there are lots of modern mystery gadgets. Good places to look for them are kitchen, chemist and hardware shops.

Why use Mystery Objects?

- To introduce a topic.
- To introduce new scientific equipment or vocabulary.
- To explore changes in science and technology over time.

Here are some examples of objects we like...



Pee-pee Teepee



Eco wash ball



Bottle cap tripod



Silicone egg ring

Running a Mystery Object activity

Mystery Objects can be used in a variety of ways, depending on the size of group that you have or the type of skills you want to develop.

The activities work best if the objects are unknown, so don't forget to check if any students know what the objects are before you start.

If any of them do know, ask them not to give the game away and involve them in the facilitation.

Large group facilitation

Where possible, arrange the group in a circle. Begin by passing the Mystery Object around the group and ask each person in turn to make an observation about it.

For example, students could mention its colour, its age or its weight (heavy or light). Stop when you get halfway round the group and ask if anyone has worked out what the object is. If no-one gives the correct answer, carry on around the rest of the group, allowing people to make their suggestions. Recap their observations and facilitate the group reaching the answer.

Small group facilitation – 'golden envelope'

This is a good activity to get everyone involved with questioning and thinking skills, and it allows small groups to work with the Mystery Objects by themselves. You will need about seven objects for a class size of 30.

Make up a 'golden envelope' for each object, containing a card with information about it. One member of the group opens the envelope to find out what the object is and then facilitates the other member(s) of the group in finding out the answer. Each member of the group takes a turn at being the facilitator.

Facilitation questions

The questions you ask around Mystery Objects should lead the participants to work out for themselves what the objects are by building on their experiences. Always begin by asking students to **describe the object** in as much detail as possible. Use open questions to allow people to connect with the object using their senses, for example: **What does it look like? What does it feel like?**

Using closed questions can highlight a specific feature or characteristic, but you should follow up these questions by asking the students to justify their answers. This will encourage closer observation and extend their thinking. For example: **Is it old or new? Why do you think that?**

Further questions

- What material is it made from? What are its properties?
- How could the material's properties be linked to the object's use?
- What sort of person might own/use this object?
- Are there any marks or designs on it? What can they tell you?
- Does it look functional or decorative – or both? Why?
- Have you ever used something similar?
- Are there different parts? How are they fixed together?
- Is anything missing?

Other ideas for using Mystery Objects

- Run an activity in the style of the game *Call My Bluff*. Get students to make up different uses for the Mystery Objects and then get other students to guess which answer is correct.
- Ask students to bring in objects from home that they think other people won't be able to identify, and let each student take the role of facilitator.

For this activity and many more, visit [sciencemuseum.org.uk/educators](https://www.sciencemuseum.org.uk/educators)

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