



THE INCREDIBLE SHRINKING MACHINE

“

If the smallest thing is nothing then the biggest thing must be something.

”

Adam (10-years-old)

1. The Chair

Begin by placing a chair in the middle of the room.

Now tell them to imagine that the chair is a futuristic machine that shrinks things and people to any size. Describe this as evocatively as you can.

Next, invite a volunteer to enter the ISM. Ask them how small they want to be shrunk. Then have them sit in it, do some pretend actions at 'the controls' and make a special noise as they shrink! Ask them to step out and describe the world as they see it – ask questions to encourage them if necessary such as, 'What's the carpet like?' or 'What's your journey to school like?' etc.

Repeat this with two or three volunteers.

2. The ISM Adventure

Next, ask each of the class members to imagine that the chair they are sitting in is one of these ISMs. Then ask them to think (have a few of them say) what size they would like to be. You then move to the controls and tell them that you set them to the requested size. You press 'Go' and when they reach the size of whatever they requested then you press 'Stop', 'but the machine malfunctions,' you tell them, 'and keeps going. No matter what you do it will not stop, you just keep getting smaller and smaller and smaller...'

Task Question 1:

- ✓ What is going to happen?

Further Questions:

- ✓ How small will you get?
- ✓ Will you continue to get smaller for ever?
- ✓ Is there a size where you can't get any smaller?
- ✓ Will you disappear?
- ✓ If so, what does 'disappear' mean?
- ✓ Does it mean 'no longer exist' or does it mean 'can't be seen'?

3. The smallest thing

Once that enquiry has been allowed to develop, set the class the following task:

Task Question 2a:

- ✓ Think of the smallest thing you can.

Task Question 2b:

- ✓ Think of the biggest thing you can.

List the suggestions then ask the teacher to say which of the things listed was the smallest/biggest, e.g. 'atom' 'cell' 'dust' etc.

Then set the children the task of thinking of something even smaller/bigger. Examples I have heard include, 'heaven' 'god' 'nothing' 'something' 'universe' 'atom' etc.

4. Ten Things (optional)

Ask the class to list 10 things they know are in the room but that they cannot see (even if they look). Examples, 'thoughts' 'air' 'heat' 'germs' 'god' etc.

5. Introduce Democritus (see The If Machine 'Get Stuffed: Fun With Metaphysics').