First Level. Primary 3. Lesson 3. Support Material: Measuring Lung Capacity

Resources: (per class)

* Large plastic container
* Plastic tubing
* Water
* Masking tape
* Marker pen
* Measuring jug
* Fish tank

Ask the children to plan an investigation into how much air their lungs can take in (inhale) in one breath. Ask the children to predict and make comparisons of the lung capacities of the children in the class (and any adults that are present).

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| 1. | Place masking tape on one side of the large container. **Note:** A 2-litre bottle will be large enough for younger children. |
| 2. | Fill the large container to the top with water using a measuring jug and label the masking tape at the 250 ml, 500 ml and 750 ml mark etc. |
| 3. | Invert the large container over a larger tank of water, being careful not to let any air into the container (if the bottle has a cap, it’s best to remove this underwater). |
| 4. | Insert a piece of plastic tubing fully into the neck of the large container. |
| 5. | Having recorded the level of the water against the scale on the side of the bottle ask the test subject to take a deep breath and blow steadily into the tubing until all the air in their lungs has been expelled. **Note:** If the apparatus is to be used by a number of children, prepare a solution of disinfectant to clean the end of the tube between uses. |
| 6. | Record the level of the water against the scale on the side of the bottle and find the difference between this and the starting level – this is the lung capacity. |