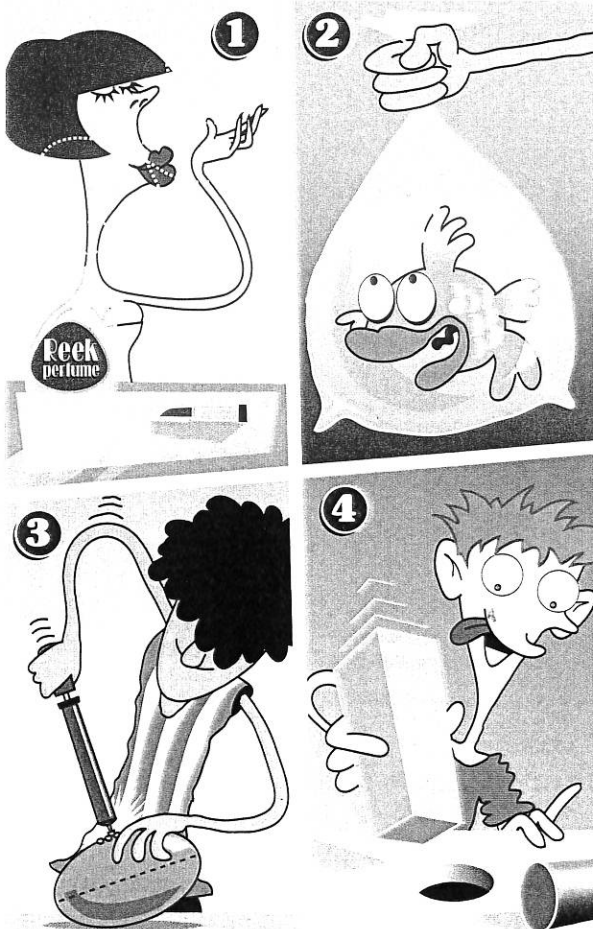




Check!

- In which state would a substance be if it had:
 - no fixed volume?
 - a fixed volume and shape?
 - a fixed volume but took the shape of its container?
- Each of the cartoons below illustrates at least one property of matter. Which shows that:
 - a solid has a fixed shape?
 - a liquid can be made to have any shape?
 - a gas can be compressed?
 - a gas does not have a fixed volume?

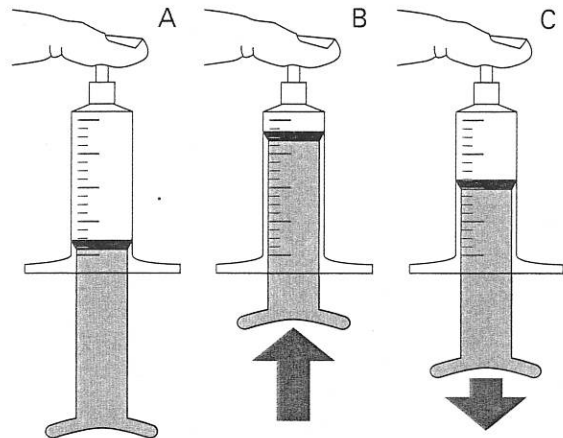


- How many kilograms are there in 2000 g, 100 000 g, 1530 g?
 - How many grams are there in 2 kg, $\frac{1}{2}$ kg, 6.7 kg?

- Look at the data table below.

	mass (g)	volume (cm ³)
Object A	39	6
Object B	54	20
Object C	6	5

- Which object has the greatest mass?
 - Which object has the greatest density?
- Look at the diagrams below. Suppose you keep your finger over the end of the syringe, starting in position A. You push in the plunger to B, then pull it back to C. In which position is the air in the syringe most dense? Explain your choice.



- It is easier to float in sea water than in fresh water. Use your knowledge of density to explain this.
- A balloon filled with helium rises when you let it go. A balloon filled with carbon dioxide sinks. Explain the difference.
- In each of these pairs, which is the object, and which is the material it is made from? Describe the properties of each substance that make the object useful. Record your answers in a table with three columns.
 - window / glass
 - styrofoam / coffee cup
 - plastic / ruler
 - aircraft / aluminium
 - bank note / polypropylene plastic