# What is time?

1. **How long does a minute last?**
   
a. How many seconds are there in 1 minute?

b. How much time had passed when you thought 1 minute was over?

c. Why is it good that we have made agreements about time?

d. What instruments do you know for measuring time?

2. **Make an hourglass**

You are going to make an hourglass.

**What do you need?**

- 2 bottles
- sand
- card
- scissors
- tape
- pencil
- stopwatch
What are you going to do?

1. Look at the materials and the drawing. How can you use these materials to make an hourglass? Draw it in the box below.

2. Write down how you are going to use the materials and how you are going to fix them together.
3 Show your design to your teacher.

4 Did your teacher think it was a good design?

Now you are ready to make your hourglass!

5 Try out your hourglass. Turn it over. Does your hourglass work?

\[ \text{yes / no, because} \]

6 Does your hourglass not work properly? Check the following points:

- Is the sand dry enough? \[ \text{yes / no} \]
- Are the bottles dry enough? \[ \text{yes / no} \]
- Is the hole in the card too big, or too small? \[ \text{yes / no} \]

Change your hourglass if necessary.

7 Take the stopwatch. Turn over the hourglass and start the stopwatch.

How long does it take for all the sand to fall to the bottom?

\[ \text{seconds} \]

3 Use your hourglass

a How long did your partner take to reach the finish line?

b Is it difficult to measure an exact time using an hourglass?

c Why / why not?