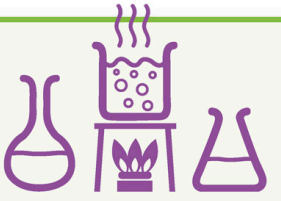
49 Describing a process

When the thing receiving the action is more important than the person or thing doing the action, you can emphasize it using the present simple passive.

New language Present simple passive
Vocabulary Science experiments
New skill Describing a process

49.1 KEY LANGUAGE THE PRESENT SIMPLE PASSIVE

When it is unimportant, or not known, who or what does an action, English uses the present simple passive. The passive also has the effect of emphasizing the action.

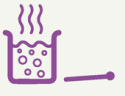


In the experiment, water is heated until it boils.

It is not known or not important who heats the water.

49.2 FURTHER EXAMPLES THE PRESENT SIMPLE PASSIVE

The water is not stirred in this experiment.



Use "not" to form negatives of the present simple passive.

A thermometer is suspended above the water.

After two minutes, the temperature is taken.

The results are recorded on the chart.

49.3 HOW TO FORM THE PRESENT SIMPLE PASSIVE

SUBJECT	"IS / ARE"	PAST PARTICIPLE	REST OF SENTENCE
Water	is	heated	until it boils.

The thing that receives the action.

Present simple of verb "to be."

The past participle describes what happens to the subject.

49.4 FILL IN THE GAPS BY PUTTING THE VERBS IN THE PRESENT SIMPLE PASSIVE

The water *is frozen* **(freeze)** to make ice to use in the experiment.

1 

The liquid _____ **(heat)** for several minutes until it starts to boil.

2 

The plant cells _____ **(observe)** using a state-of-the art microscope.

3 

Static electricity _____ **(generate)** when you rub a balloon against your hair.

4 

The chemicals _____ **(add)** slowly to the water to start the reaction.

5 

The temperature of the salt water _____ **(take)** using a thermometer.

6 

Two beakers _____ **(fill)** almost to the top with a mixture of oil and water.

49.5 REWRITE THE SENTENCES USING THE PRESENT SIMPLE PASSIVE

We heat the liquid for 10 minutes.
The liquid is heated for 10 minutes.

1 We do not remove the liquid from the heat.

_____

2 We leave the liquid to cool in a glass jar.

_____

3 We observe crystals forming in the jar.

_____

4 We measure the size of the crystals.

_____

5 We do not pour oil into the water.

_____

6 We boil the water to make steam.

_____

7 We dissolve salt in the water.

_____

8 We do not mix the oil and water together.

_____

9 We record the results of the experiment.

_____

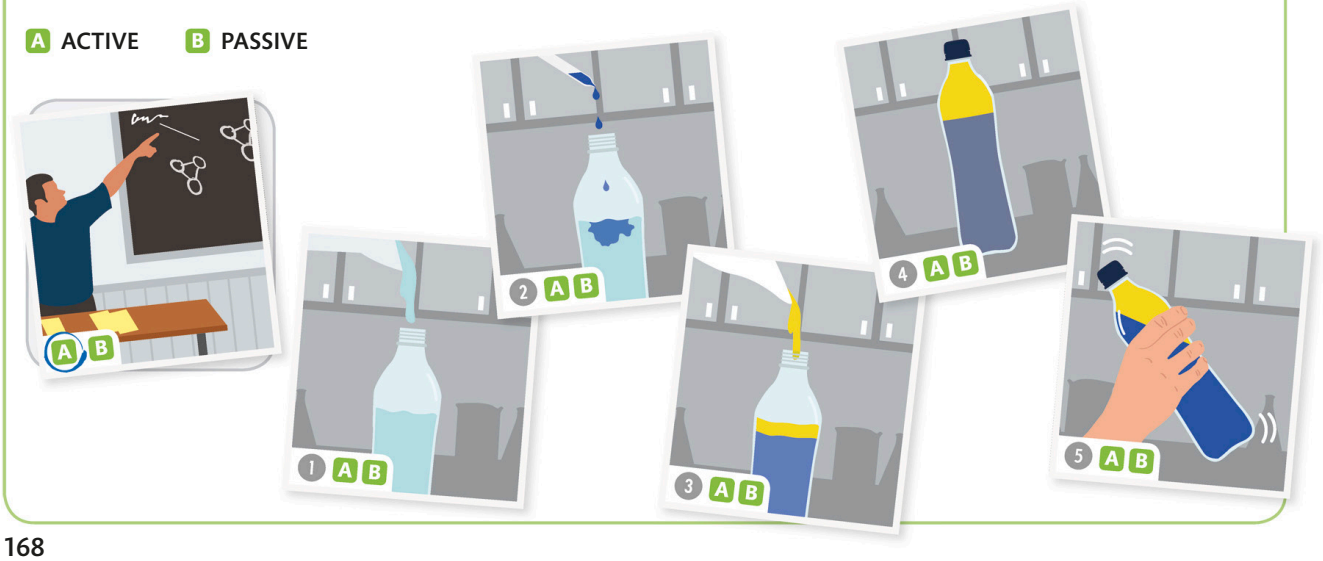
49.6 SAY FULL SENTENCES OUT LOUD, FILLING IN THE GAPS BY PUTTING THE VERBS IN THE PRESENT SIMPLE PASSIVE

The temperature of the water *is recorded* **(record)** every five minutes.

1. The water _____ **(remove)** from the heat once it has boiled.
2. The chemicals _____ **(pour)** into a test tube to start the reaction.
3. When the substance _____ **(mix)** with water, it changes color.
4. The reaction between the chemicals and the water _____ **(observe)**.
5. The mixture _____ **(cool)** for approximately one hour until it sets.
6. The water _____ **(stir)** for 5 minutes until all the salt dissolves.
7. The two substances _____ **(place)** in a test tube together.
8. The results _____ **(estimate)** before the experiment takes place.

49.7 LISTEN TO THE AUDIO AND MARK WHETHER EACH ACTIVITY IS DESCRIBED IN THE ACTIVE OR PASSIVE VOICE

A ACTIVE **B** PASSIVE



49.8 READ THE ARTICLE AND ANSWER THE QUESTIONS

Chemistry Now

The Scientific Method is used to help us answer questions or solve problems. It has six stages:

Stage 1 **Asking a question:** A question is posed. For example, does grass grow quicker under green or red light?

Stage 2 **Research:** Research is carried out, for example using books, journals, and articles.

Stage 3 **Hypothesis:** The results of the research are used to predict the answer to the question. This prediction is called a hypothesis.

Stage 4 **Experiment:** Now a test or process is designed so that the hypothesis can be tested. For example, grass seeds are grown under red light and under green light. The growth is observed and noted. In this way, the growth rates of the grass under different conditions can be compared.

Stage 5 **Analysis of the results:** The results of the experiment are recorded and analyzed.

Stage 6 **Conclusion:** The results are reviewed to check whether or not they support the original hypothesis.

What is the first stage of the Scientific Method?

- **Asking a question** ☑
- **Solving a problem** ☐
- **Answering a question** ☐

1 What are scientists least likely to use when carrying out their research?

- **Books** ☐
- **Articles** ☐
- **Newspapers** ☐

2 What do scientists generally use to form a hypothesis?

- **A test or process** ☐
- **Results of their research** ☐
- **A questionnaire** ☐

3 How do scientists test whether or not a hypothesis is correct?

- **They research the hypothesis** ☐
- **They grow grass seeds** ☐
- **They design an experiment** ☐

4 What stage of the Scientific Method comes after the experiment?

- **Analyzing the results** ☐
- **Checking the results** ☐
- **Recording the hypothesis** ☐

5 What do scientists do in the final stage of the Scientific Method?

- **Prove the original hypothesis** ☐
- **Review the results** ☐
- **Disprove the hypothesis** ☐

49 CHECKLIST

Present simple passive ☐ **Aa** Science experiments ☐ Describing a process ☐