

Teacher's notes

Identify the order of events

Warm up

Ask volunteers to tell you about their morning routine.

Elicit suggestions such as:

I get up at seven and drink juice.

I have coffee before I leave the house.

I have a shower and then I have breakfast.

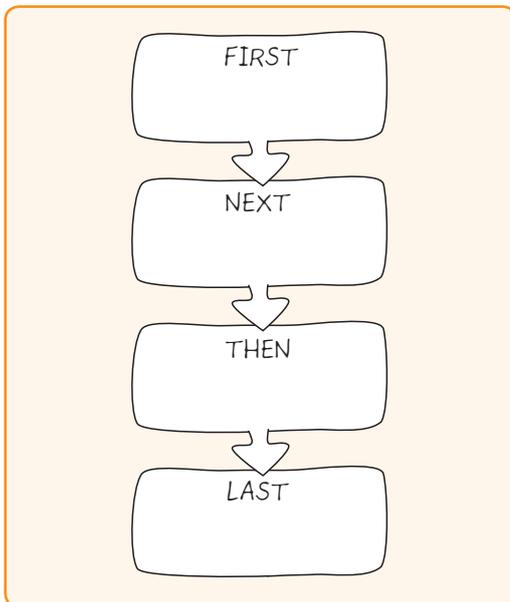
Challenge the students with questions on what they say, such as:

Do you get up at seven and drink tea? (No, I drink juice.)

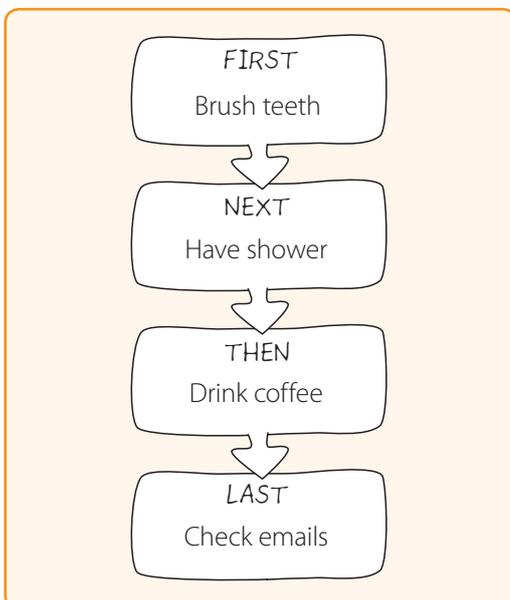
Do you have coffee after you leave the house? (No, before.)

Do you have breakfast before you have a shower? (No, I have a shower first.)

Next, introduce a flow chart. You could draw one on the board like this (it could also go horizontally from left to right, if that suits your board better):



Ask students to think of four things they do most mornings before they leave home, and create their own flow chart in order. For example:



Ask a volunteer to tell you their morning routine. Then ask if anyone has anything different. Volunteers should naturally use contrastive stress, for example:

*I brush my teeth and then shower, but I check my emails **before** I drink coffee.*

*I do the same things but I don't check my emails – I **watch** the **news** on TV.*

Explain that flow charts such as these, or numbered lists, are a good way to record and order information that you hear. Finally, point out that students have just started to practise listening for the order of events.

Using the Factsheet

Make sure students have completed and understood the Theory to practice section before starting the Worksheet.

There are two possible ways to use the Factsheet:

- 1 Give students the Factsheet before the lesson, so they can read it at home and come to the lesson prepared to do the Worksheet. If you use this approach, start the lesson by checking that all students have read and understood the Factsheet, and answer any questions.
- 2 Give students the Factsheet at the beginning of the lesson and start by working through it with the students.

Theory to practice

Possible answers

Ordinal words	Sequencing words/phrases	Cause and effect words/phrases
first/firstly	next	due to
second/secondly	initially	because of
third/thirdly	then	consequently
fourth/fourthly	subsequently	as a result of
fifth/fifthly	after that	since
sixth/sixthly	at the same time	therefore
Tenses with time words and phrases		
<p>By the time they <u>reached</u> the station, Anita <u>had gone</u>.</p> <p>After you <u>have done</u> that, <u>finish</u> the report.</p> <p><u>Once</u> he <u>had secured</u> financing, the project <u>could go</u> ahead.</p> <p>We <u>will have finished</u> <u>by</u> midnight.</p>		

Using the Worksheet

Practice

1 Choose the correct phrase to complete the sentences.

- Allow a few minutes for students to complete the task. They should work alone for this but students who finish quickly can compare answers with a partner.
- Elicit answers, making sure everyone understands why the wrong answers are incorrect. Elicit or prompt with a few example sentences for the wrong answers so that students know how to use these words/phrases properly.

Answers

- a Secondly,
- b After that,
- c because of
- d then
- e since
- f Consequently,

2  **Number the highlighted verbs in the order that they happen.**

- You might want to do the first item together as a class. Establish that the safety cover has to be removed first (although it is mentioned second).
- Students can do this exercise in pairs.
- Allow a few minutes before checking answers.

Answers

- a** 2 / 1
- b** 2 / 1
- c** 1 / 2
- d** 2 / 1
- e** 3 / 1 / 2
- f** 2 / 1 / 3

3  **01 Listen to some short extracts (a–f). Number the items in the correct order (1–3).**

- Tell the class they are going to practise listening to three events/actions being presented at a time. Their job is to number them 1–3, as they did in Exercise 2.
- Ask students to look at the items. Make sure they know all the words. Point out the boxes where students have to add the numbers.
- Play  **01**. Play it a second time if students ask you to.
- After checking answers, ask students which keywords and phrases helped them to identify the correct order of events (see the transcript).

Answers

- a** 2 / 3 / 1
- b** 3 / 1 / 2
- c** 1 / 3 / 2
- d** 3 / 2 / 1
- e** 2 / 3 / 1
- f** 3 / 2 / 1

Transcript  **01**

- a** First of all, conduct a visual check for any sparking. Then, only touch the switches with the back of the hand. You should, of course, be wearing protective gloves and rubber-soled shoes for all of this.
- b** We will begin the design stage as soon as we have completed our market research. Then we should be able to go into production next April.
- c** The animal's first priority is to secure a source of food. Then it sets about finding a mate, but not before it has prepared a shelter away from predators.
- d** You will need a special receipt book, which you can get from the bookshop on campus. Next, fill in the amount, sign it, and take it to the registrar's office.
- e** The metal is melted down. After that, it undergoes a process to remove impurities. Finally, it is pressed into thick sheets, which are rolled and stored.
- f** The treaty was delayed due to the fighting that had broken out the week before. And that was as a result of the government's refusal to take action.

4   **02 Listen to an extract about biomimicry. As you listen, answer the questions. Compare your answers with a partner.**

- Students may already be familiar with the piece on biomimicry. If so, reassure them that they will be listening for something very different this time.
- Allow a few minutes for students to read the questions and prepare to listen. They can discuss the questions at this stage if they want to.
- Play  **02**. Students can discuss the answers during and after listening.
- Play the recording a second time if students really want you to. However, since it is a long piece, you may wish to play it only once here. Students could listen again in Exercise 5.
- When checking answers, allow for a variety of different expressions. The main thing, of course, is that students get the events in order.

Suggested answers

- a** After – as the train exits the tunnel.
- b** The lecture on birds.
- c** The front of the train is now 50 feet long / mimics the beak of the kingfisher / is long and pointed / does not allow a cushion of air to build up.
- d** You don't actually feel anything when a mosquito pierces your skin. You only experience pain afterwards – this is irritation caused by the mosquito's saliva. / The mosquito is able to bite you without you noticing due to the serrated design of its mouthparts.
- e** A company (called EvoLogics) studied dolphin communication for eight years.
- f** Thanks to the unique nature of its shell, which is covered in tiny bumps. Its bumps collect humid air from the desert's morning fog, which becomes droplets of water. These droplets then roll down the beetle's neck and into its mouth.

Transcript  **02**

Eiji Nakatsu was one of the chief engineers for the Shinkansen rail network in Japan, the network of 'bullet' trains that connects Tokyo with other major cities. One of the challenges Nakatsu had to solve was a problem of noise caused by the high-speed train. When a train enters a tunnel, a cushion of air builds up in front of it. And when the train exits the tunnel, the air rapidly expands. The cushions of air created by the Shinkansen trains caused such a loud noise as they exited tunnels that they disturbed residents a quarter of a mile away.

While trying to find a solution to this problem, Nakatsu thought back to a lecture on birds he had been to some years previously, and in particular he remembered what he had learnt about kingfishers. When a kingfisher spots a fish, it leaves its perch and dives into the water at great speed. You might think that this sudden change in pressure would cause a loud splash and scare the fish away. But a kingfisher's beak is pointed, wedge-shaped in fact, which allows it to enter the water with almost no splash. There is very little noise at all.

The science, Nakatsu realized, was very similar. It was all about the change in pressure. So, he designed the front of the Shinkansen trains in the shape of a kingfisher's beak. The front of the train is nearly 50 feet long. Consequently, the trains make a lot less noise.

My next example of biomimicry is also from Japan, where microengineers have created a minute needle just one millimetre long and with a diameter of 0.1 millimetres. Not only is the needle incredibly small, but it has been designed in a way which makes it painless. And how did these engineers come up with the design? They imitated the mouth of a mosquito. You may think that a mosquito bite is painful, but that is actually just the irritation caused by the mosquito's saliva, which it injects into you. You don't actually feel anything as it pierces your skin. If you did, you would simply brush it off, or kill it. The mosquito is able to bite you without you noticing due to the intricate, serrated design of its mouthparts.

From the mosquito to a very different animal. Did you know that dolphins can communicate with each other up to distances of 25 kilometres? They do this by employing several frequencies to transmit signals to each other. A company called EvoLogics studied dolphin communication for eight years and developed a way to detect underwater earthquakes and transmit the information as part of a tsunami warning system. Small transmission devices called modems are now being used as an early warning system for tsunamis in the Indian Ocean.

And finally, from the Indian Ocean to an environment with very little water. Some of the poorest areas in the world also suffer from severe water shortage, and finding a way to provide water to the people of these countries is one of the world's biggest challenges today. One animal that has been forced to overcome a similar challenge is the *Stenocara* beetle, which lives in the Namib Desert in Southern Africa. This beetle copes in these very dry conditions thanks to the unique nature of its shell, which is covered in tiny bumps. These bumps collect humid air from the desert's morning fog, which become droplets of water. These droplets then roll down the beetle's neck and into its mouth. This remarkable design has been copied by many companies hoping to solve the challenge of harvesting water in dry areas. One example is Warka Water, a company that has designed nine-metre-tall structures which collect fog and in ideal conditions can collect 100 litres of water overnight.

5  **In pairs, discuss the things that helped you answer the questions in Exercise 4. What can you remember about the way the information was presented? Note down any words or phrases that helped you understand things in the correct order.**

- Allow a few minutes for students to discuss and note down what they remember. If you only played  02 once in the previous exercise, or if students really want to hear it again, you can play it again here.
- When checking answers, make sure students understand that they are example of signposting, and that listening for these words and phrases will help them in future when they are trying to understand the order of events.

Answers

The relevant sections of  02 are given here. The keywords and phrases are underlined.

- When a train enters a tunnel, a cushion of air builds up in front of it. And when the train exits the tunnel, the air rapidly expands. The cushions of air created by the Shinkansen trains caused such a loud noise as they exited tunnels that they disturbed residents ...
- Nakatsu thought back to a lecture on birds he had been to some years previously ...
- So, he designed the front of the Shinkansen trains in the shape of a kingfisher's beak. The front of the train is nearly 50 feet long. Consequently, the trains make a lot less noise.
- You don't actually feel anything as it pierces your skin. If you did, you would simply brush it off, or kill it. The mosquito is able to bite you without you noticing due to the intricate, serrated design of its mouthparts.
- A company called EvoLogics studied dolphin communication for eight years ...
- This beetle copes in these very dry conditions thanks to the unique nature of its shell, which is covered in tiny bumps. These bumps collect humid air from the desert's morning fog, which become droplets of water. These droplets then roll down the beetle's neck and into its mouth.

Reflect

6 **Without looking back at your Factsheet, see how many words or phrases you can remember. Add them to the table. Remember to listen for them to help you identify the order of events.**

- Finish the lesson by encouraging students to reflect on what they have learnt.
- Point out that the checklist is the same one they filled in on the Factsheet, but tell them that you don't want them to copy it as the purpose here is to test their memory.
- Allow a few minutes for students to add words or phrases to the list. They can find them on the Worksheet. They may also come up with others of their own. They should work alone – at least initially – to help them reflect on what they have covered in the lesson. They can then compare notes with a partner.

- Ask for suggestions for each category. You may wish to write them up on the board for everyone to see. Encourage students to add anything to their lists that they have not already written. Remind them of tone of voice, and the contrastive stress they used in the Warm up.
- Finally, remind students to listen for these words and phrases in future to help them listen for the order of events.

Possible answers

These suggestions appear in the answers to Theory to practice. Students' answers may vary.

Ordinal words	Sequencing words/phrases	Cause and effect words/phrases
first/firstly	next	due to
second/secondly	initially	because of
third/thirdly	then	consequently
fourth/fourthly	subsequently	as a result of
fifth/fifthly	after that	since
sixth/sixthly	at the same time	therefore
Tenses with time words and phrases		
<p>By the <u>time</u> they <u>reached</u> the station, Anita <u>had gone</u>.</p> <p>After you <u>have done</u> that, <u>finish</u> the report.</p> <p><u>Once</u> he <u>had secured</u> financing, the project <u>could go</u> ahead.</p> <p>We <u>will have finished</u> <u>by</u> midnight.</p>		