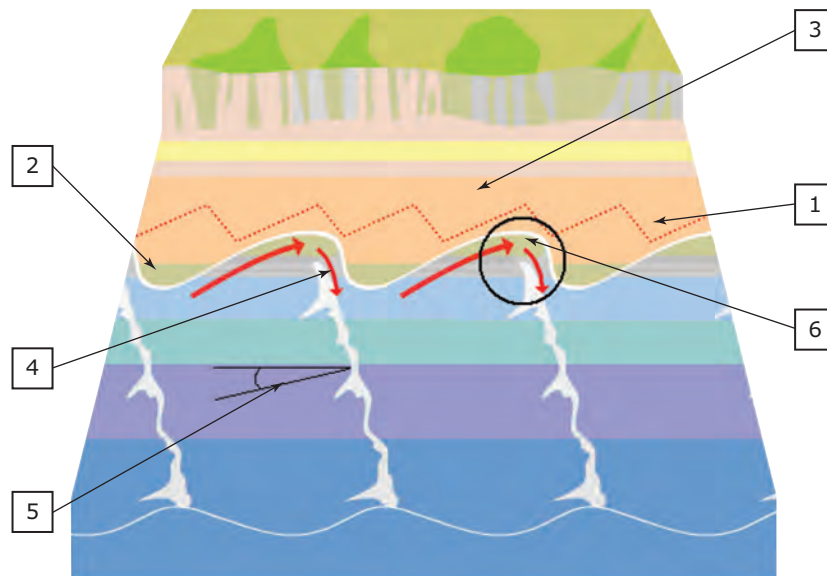


## Exercise 1

## Reading

Match the labels and explanations to the correct place on the diagram. Number 1 has been done for you.



- |   |             |  |
|---|-------------|--|
| 1 | acute angle | small stones, shells and others found lying on the beach left by the sea   |
| 2 | backwash    | angle between zero and ninety degrees                                      |
| 3 | shingle     | strip of land between the sea and the coast                                |
| 4 | shore       | rise and fall of the sea water as it hits the shore                        |
| 5 | zig-zag     | return movement of the sea water back into the sea after it hits the shore |
| 6 | swash       | in the shape of a letter Z, movement up and down                           |

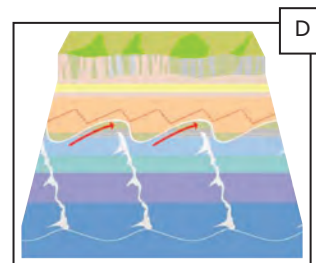
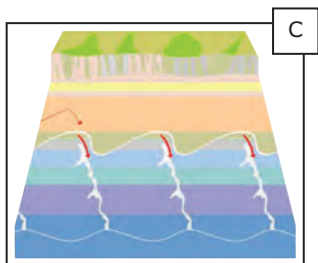
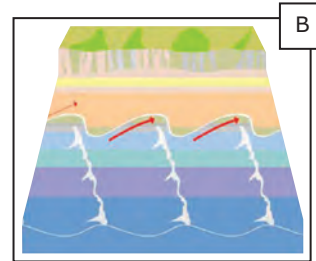
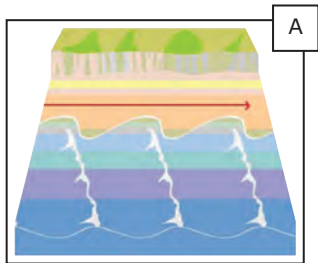
## Exercise 2

## Reading

Write the number of the correct caption (1-5) next to each picture on the next page. Number 1 has been done for you. One of the pictures has two captions.

- The mud, sand and shingle carried by the sea are called its load. This load can be carried along the shore by the process known as longshore drift.
- As this process is repeated, the material is gradually transported along the shore in a zig-zag manner.

- 3 Each backwash drags the material straight down the shore, following the slant of the beach.
- 4 The swash of each wave pushes material up and along the shore.
- 5 The waves approach the shore at an acute angle.



## Exercise 3

## Reading

Join the parts to make sentences about longshore drift.

- |   |  |  |
|---|--|--|
| <ol style="list-style-type: none"> <li>1 Load</li> <li>2 Longshore drift</li> <li>3 Waves</li> <li>4 Swash</li> <li>5 Each backwash</li> <li>6 As this process is repeated, the material</li> </ol> |  | <p>approach the shore at an acute angle.</p> <p>drags the material straight down the shore, following the slant of the beach.</p> <p>is gradually transported along the shore in a zig-zag manner.</p> <p>is the process by which the load is carried along the shore.</p> <p>is the word used for the mud, sand and shingle carried by the sea.</p> <p>of each wave pushes material up and along the shore.</p> |
|---|--|--|

Use the speaking frame to talk about longshore drift.  
Use the words in the boxes to help you.

1 **Sea action** one stop cli

mud  
sand  
shingle  
load  
shore  
process  
longshore drift

carried by  
are called  
can be carried along  
known as

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2

waves  
shore  
acute angle  
swash  
material

approach  
pushes

up and along

3

backwash  
shore  
slant  
beach

drags  
following

straight down

4

process  
shore  
zig-zag

repeated  
transported

along

gradually

## Objectives

### Science

Students look at sea action and how load is carried along the shore by the sea by longshore drift.

### Language

Skills: Speaking and reading

Grammar: Present simple tense, present simple passive, (*get* + participle)

Vocabulary: **Verbs:** *approach, pushes, carried, drags*

**Nouns:** *zig-zag, backwash, slant, acute angle, swash, shingle, load, shore, longshore drift*

**Adverbs:** *gradually*

**Prepositions:** *up and along, straight down*

## Activities

Activities	Language skills
Students say what they know about longshore drift	Speaking; vocabulary; present simple tense
They label a diagram of longshore drift	Vocabulary
They order a set of pictures showing the sequence of events in the process of longshore drift	Speaking; reading; vocabulary; present simple tense; present simple passive; ( <i>get</i> + participle)
They watch the animation and check their answers	Reading; vocabulary
They read and join up phrases to describe the process and show the sequence of events	Reading; vocabulary
(Groups or pairs) They give an oral commentary on the animation	Speaking; vocabulary; present simple tense; present simple passive; ( <i>get</i> + participle)

## Procedure

### With the whole class

(Typical situation: whole class watching the presentation and animation on an interactive whiteboard or projector.)

1. [*Slide 1*] Introduce the topic. Ask the class to look at the diagram of the process of longshore drift in exercise 1 on the worksheet. Ask students questions to help them say what they know about the process of longshore drift, but do not go into detail. Introduce some key vocabulary (see above). Then get the students to do

exercise 1 in pairs: they label the diagram. Monitor and help. When students have finished, check answers with the whole class. (See answer key.)

2. Ask the students to continue working in pairs to do exercise 2 on the worksheet: they match the pictures with the correct caption. Monitor and help, but do not give students the answers.
3. *[Slides 2 and 3]* Play the animation. Tell the students to watch carefully and check whether they numbered the pictures correctly. Students check their answers in pairs. (See answer key.)
4. *[Slide 4]* Tell students not to look at exercise 2 while they do the next exercise. Students continue to work in pairs and do exercise 3 on the worksheet: they join the phrases to describe the process and show the correct sequence of actions. Monitor and help. Then check answers with the whole class. (See answer key.)
5. *[Slide 5]* Tell students to work in pairs and practice talking about how the process of longshore drift works using the speaking frame in exercise 4. One student talks while the other listens and checks notes. When the first student has finished they swap roles.

### **With groups (one group studies longshore drift and then presents it to the class)**

(Typical situation: students arranged in groups around computers e.g. in a language lab)

1. *[Slide 1]* Students work in their group and do exercise 1 on the worksheet: they label the diagram. When students have finished, they can check their answers with the answer key.
2. Ask the students to do exercise 2 on the worksheet: they match the pictures with the correct caption. Monitor and help, but do not give students the answers.
3. *[Slides 2 and 3]* Play the animation. Tell the students to watch carefully and check whether they numbered the pictures correctly. Students can also use the answer key to check their answers.
4. *[Slide 4]* Tell students not to look at exercise 2 while they do the next exercise. Students do exercise 3 on the worksheet: they join the phrases to show the correct sequence of actions. They can use the answer key to check their answers.
5. *[Slide 5]* The group gets ready to give an oral commentary on the animation. They can rehearse it once or twice if they wish. Encourage them to use the speaking frame in exercise 4 to help them prepare and also during their presentation. Play the animation; students give the commentary. Encourage students to distribute speaking roles equally in their group. They may talk about one or two slides each depending on how many students there are in their group. The original PPT has been provided here so that you have the option to use the slides without the text which appears in the animation.

### **Language focus**

Though 'get + participle' doesn't appear in this text, it is common in the language of processes and so you may wish to introduce it and use it here depending on the level of your learners.

## Answer Key

### Exercise 1

- |   |             |  |
|---|-------------|--|
| 1 | shingle     | small stones, shells and others found lying on the beach left by the sea   |
| 2 | acute angle | angle between zero and ninety degrees                                      |
| 3 | shore       | strip of land between the sea and the coast                                |
| 4 | swash       | rise and fall of the sea water as it hits the shore                        |
| 5 | backwash    | return movement of the sea water back into the sea after it hits the shore |
| 6 | zig-zag     | in the shape of a letter Z, movement up and down                           |

### Exercise 2

A 1, B 5 and 4, C 3, D 2

### Exercise 3

- |   |   |   |
|---|---|---|
| 1 | Load                                      | is the word used for the mud, sand and shingle carried by the sea.            |
| 2 | Longshore drift                           | is the process by which the load is carried along the shore.                  |
| 3 | Waves                                     | approach the shore at an acute angle.   |
| 4 | Swash                                     | of each wave pushes material up and along the shore.                          |
| 5 | Each backwash                             | drags the material straight down the shore, following the slant of the beach. |
| 6 | As this process is repeated, the material | is gradually transported along the shore in a zig-zag manner.                 |