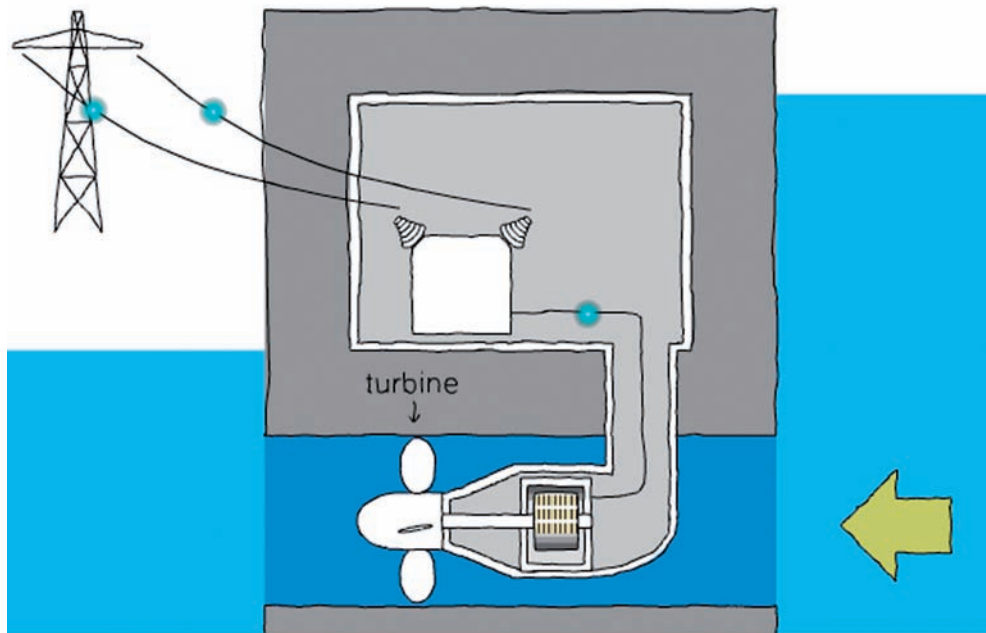


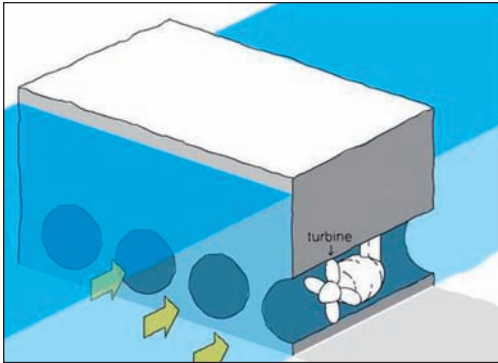
## Exercise 1

Talk about the picture with your partner. Say how tidal power stations work.



## Exercise 2

Write sentences about the pictures, using the prompts.



1. water/move/river/high tide  
pass/turbines/power station  
cause/spin

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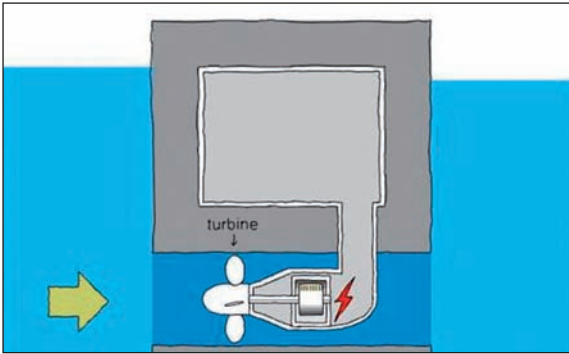
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2. turbines/spin  
drive/generator  
make/electricity

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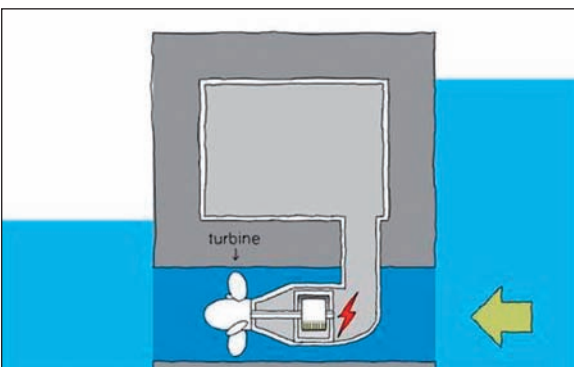
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3. low tide/come  
water/move/other way  
process/repeat

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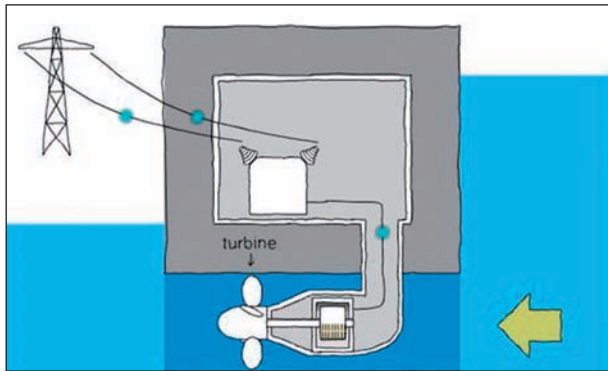
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4. electricity/send/pylons/  
cables/homes/country

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## Exercise 3

Complete the gaps using the words in the box.

low tide    pylons    tides    turbines    drive    high tide    mouths

1. The energy in \_\_\_\_\_ can be harnessed to produce electricity.
2. Tidal power stations are usually built near the \_\_\_\_\_ of rivers.
3. As water moves up the river at \_\_\_\_\_, it passes through \_\_\_\_\_ in the power station, causing them to spin.
4. As the turbines spin they \_\_\_\_\_ a generator, which makes electricity.
5. When \_\_\_\_\_ comes, the water starts to move the other way and the process is repeated.
6. Electricity is sent via \_\_\_\_\_. and cables to homes around the country.

## Objectives

**Science**

Students learn how tidal energy can be used to make electricity.

**Language**

Skills: Speaking, listening, reading and writing

Grammar: Present simple tense

Vocabulary: Nouns: *energy, tides, electricity, power stations, river mouth, turbine, generator, pylons, cables*

Verbs: *harness, produce, spin, drive*

**Activities**

<b>Activities</b>	<b>Language skills</b>
Students study a diagram and discuss how they think tidal power produces electricity	Speaking; vocabulary; present simple tense
They watch the animation and check if they were correct	Listening; reading; vocabulary
They look at a picture sequence and write captions using prompts	Writing; vocabulary; present simple tense
They do a gap-filling activity	Reading; writing; vocabulary
(Groups only:) They give an oral commentary on the animation	Speaking; vocabulary; present simple tense

**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. Introduce some key vocabulary (see above) but do not go into detail. Then ask the students to work in groups and do exercise 1 on the worksheet: they talk about the picture of a tidal power station and say how they think tidal power is used to produce electricity. They can do this in English or their first language. Monitor and help. When they have finished, ask a group to report on how they think the process works. Encourage the class to respond, but do not explain the whole process to students at this point.

- 2 [Slides 2 and 3] Play the animation. Ask the students to listen and watch carefully to see if they were right about how tidal power is used to produce electricity. Check that they have understood the whole process.
- 3 [Slide 4] Students work in groups and do exercise 2 on the worksheet: they write sentences about the pictures using the prompts. Monitor and help. Check the answers with the whole class. (See answer key.)
- 4 Students work individually and do exercise 3 on the worksheet: they complete the gaps. Check the answers with the whole class (see answer key) or replay the animation.

### With groups (one group studies tidal power and then presents it to the class)

(Typical situation: students arranged in groups around computers eg, in a language lab)

- 1 [Slide 1] Students work in their group and do exercise 1 on the worksheet: they talk about a picture of a tidal power station and say how they think tidal power is used to produce electricity. They can do this in English or their first language.
- 2 [Slides 2 and 3] Students play the animation and listen and watch carefully to see if they were right about how tidal power is used to produce electricity.
- 3 [Slide 4] Students work in their group and do exercise 2 on the worksheet: they write sentences about the pictures using the prompts. They can check their answers using the answer key.
- 4 Students work individually and do exercise 3 on the worksheet: they complete the gaps. They can check their answers using the answer key or replay the animation.
- 5 [Slide 5] The group gets ready to give an oral commentary on the animation. They can rehearse once or twice if they wish. Play the animation without sound; students give the commentary.

**Tidal power****Worksheet answer key****Exercise 2****Suggested answers:**

1. As water moves up the river at high tide it passes through turbines in the power station, causing them to spin.
2. As the turbines spin they drive a generator, which makes electricity.
3. When low tide comes, the water starts to move the other way and the process is repeated.
4. Electricity is sent via pylons and cables to homes around the country.

**Exercise 3**

1. tides
2. mouths
3. high tide
4. turbines
5. drive
6. low tide
7. pylons