

# Introduction

Digital CLIL is a collection of cross-curricular material carefully designed for ESO students, based around content areas like technology, music and science. Students will expand and consolidate their knowledge of these topics, and also undertake their own research on the internet.

The Digital CLIL material for each level of ESO centres on one main content area, which is developed over three terms. Each term, students examine different related topics, providing an exciting opportunity to learn about different subjects over the school year. Each level starts with basic grammar structures and gradually progresses in difficulty over the three terms. However, teachers may decide to use the materials in any order to match their class needs. All the Digital CLIL materials included in this CD are also accessible on our website.

Level	Topic	1 <sup>st</sup> term	2 <sup>nd</sup> term	3 <sup>rd</sup> term
ESO 1	Our World	The Earth	Around the World	Man in the World
ESO 2	Changes	Energy	Famous Contributions Towards Change	Save the World
ESO 3	People	Population	The Human Body: The Respiratory System	People and the Law
ESO 4	Waves	The Music Industry	Sound	Waves

The Digital CLIL material for each term includes:

- a ready-to-print Fact sheet with background information on each particular topic
- two ready-to-print Worksheets for each topic to use together with the Fact sheet or other resources
- complete Teacher's notes with suggestions on how to exploit each worksheet fully
- a Webquest and a list of suggested websites to consult\*
- a Teacher's edition Webquest with teaching notes, a full answer key and extra activities.

We hope you and your class will enjoy this material.

\* These websites were last accessed when this material was produced. We recommend you check the websites are running before using them in class.

# The Earth

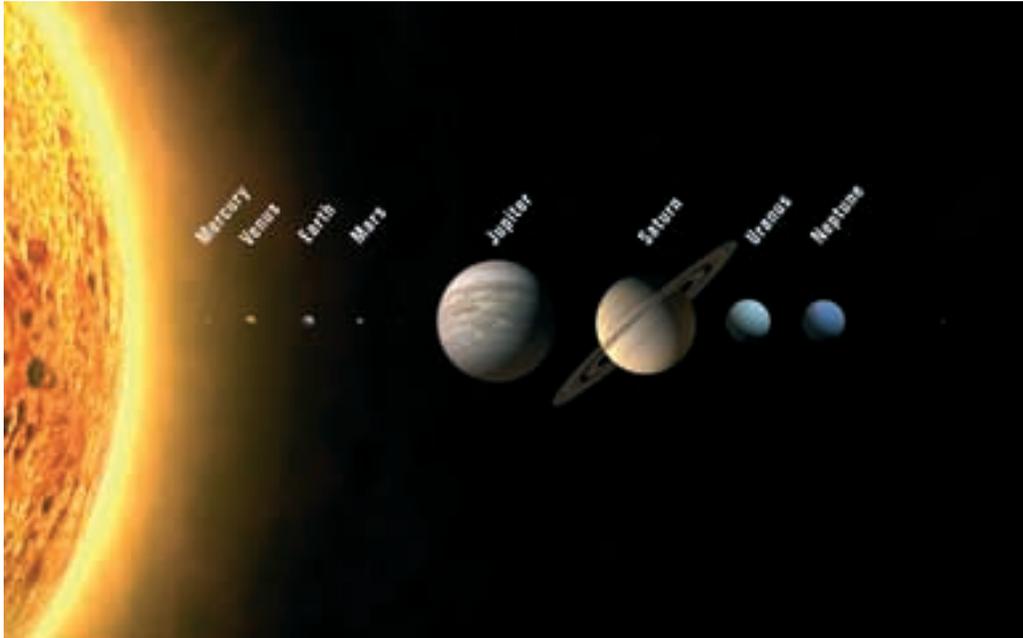
## Our Planet

The Solar System is a group of planets. These planets orbit the Sun. Our planet is the **Earth**. The Earth is the third planet in the Solar System.

The Earth revolves around the Sun and takes 365 days and six hours to complete its orbit. The

Moon is the Earth's satellite and it revolves around the Earth.

The shape of the Earth is like a sphere. Do you know why the Earth is called the Blue Planet? Because from space the Earth looks blue.



There are eight planets in the Solar System.

## The Layers of the Earth

There are three outer layers of the Earth.

The **lithosphere** is the solid surface of the Earth. Continents and the areas on the sea beds form the lithosphere. We live on the lithosphere and build our houses on it. \_\_\_\_\_

The oceans, seas, rivers and lakes form the **hydrosphere**. This layer of water covers three quarters of the surface of the Earth. \_\_\_\_\_

The **atmosphere** is a layer of gases and it surrounds the Earth. You can see clouds in the atmosphere. \_\_\_\_\_



## The Movements of the Earth

Rotation and revolution are the movements of the Earth.

The Earth turns on its own axis. The name of this movement is **rotation**. The Earth completes a full circle in 24 hours. The Earth's rotation creates day and night. It's day on that part of the Earth facing the Sun and it's night on the opposite side of the Earth.

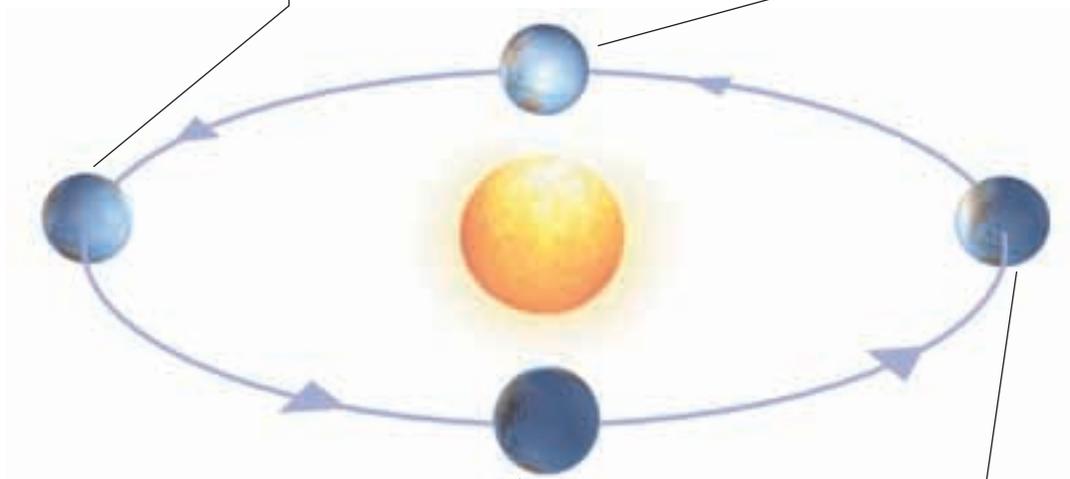
The Earth orbits the Sun. This movement is called **revolution**. The Earth completes one full circle around the Sun in 365 days and six hours. These are the 365 days of the year. As a result of the revolution, there are four seasons: spring, summer, autumn and winter. When one part of the Earth receives a lot of heat and light from the Sun, it's summer. At the same time, in another part of the Earth, the light and the heat of the Sun isn't so intense and it's winter.



The Earth turns on its own axis.

Northern Hemisphere: spring  
Southern Hemisphere: autumn

Northern Hemisphere: winter  
Southern Hemisphere: summer



Northern Hemisphere: summer  
Southern Hemisphere: winter

Northern Hemisphere: autumn  
Southern Hemisphere: spring

# The Earth

**1** Oh, no! Aliens have stolen the planets. Write the names of the planets in the correct order from the Sun.



- |                |         |
|----------------|---------|
| 1 _____        | 5 _____ |
| 2 _____        | 6 _____ |
| 3 <u>Earth</u> | 7 _____ |
| 4 _____        | 8 _____ |

**2** What objects can you find in the Solar System? Match the names with the definitions.

- |                      |   |
|----------------------|---|
| 1 The Sun            | a Small bodies made of dust, ice and rocks. They have a tail.       |
| 2 Asteroids          | b Large round objects. They move around the Sun in circular orbits. |
| 3 Comets             | c The enormous yellow star in the middle of the Solar System.       |
| 4 Natural satellites | d These bodies orbit planets.                                       |
| 5 Planets            | e Rocks floating in space.  |

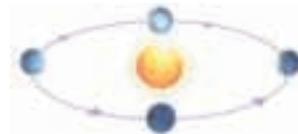
**3** Find words related to our planet in the wordsnake.



**4** The surface of the Earth has three layers, the atmosphere, the hydrosphere and the lithosphere. Where can you find these things? Write *atmosphere*, *hydrosphere* or *lithosphere* beside each picture.

- |  |                   |
|--|-------------------|
| 1    | <u>atmosphere</u> |
| cloud _____  |                   |
| 2    | _____             |
| wave _____   |                   |
| 3    | _____             |
| glacier _____  |                   |
| 4   | _____             |
| mountain _____   |                   |
| 5  | _____             |
| lightning _____  |                   |

**5** What season is it for a person in the Northern Hemisphere if it's summer in the Southern Hemisphere?



\_\_\_\_\_

\_\_\_\_\_

**6** The aliens from exercise 1 want to know more about the Earth. Write a paragraph with a description of your planet.

The Earth is the third planet from the Sun. It has ...

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# The Earth

## Warm up

- Ask students if they know what a planet is. Then ask them the name of the planet where we live. Write the word on the board.
- Ask students what they know about the Earth. Elicit things you can find on the Earth: people, animals, cities, houses, continents, etc.

- 1**
- Ask students if they know what the Solar System is. Tell students that they are going to find out more about the Solar System. Give students the Fact sheet.
  - Tell a volunteer to read the section *Our Planet* on the Fact sheet.
  - After reading the text, ask students if they know the names of any other planets apart from the Earth. Write the names of the planets on the board.
  - Tell students that they are going to complete the first activity in Worksheet 1. Explain that some aliens have stolen the planets and they have to write the names of the planets in the correct order from the Sun.

### Answers

- |           |           |
|-----------|-----------|
| 1 Mercury | 5 Jupiter |
| 2 Venus   | 6 Saturn  |
| 3 Earth   | 7 Uranus  |
| 4 Mars    | 8 Neptune |

- 2**
- Tell students that the Solar System is made up of the Sun and the planets but there are more things. Ask them if they can name any other things that can be found in the Solar System.
  - Explain that in this activity they are going to learn about other things in the Solar System. Ask a volunteer to read the example. Ask the class if they agree with the definition. Finally, ask the class to match the rest of the things in the Solar System with their corresponding definition. They can use a dictionary, an encyclopaedia, the internet or any other reference material to find the answers.

### Answers

- |     |     |
|-----|-----|
| 1 c | 4 d |
| 2 e | 5 b |
| 3 a |     |

- 3**
- Tell students to find words related to our planet in the wordsnake. They can find all the words in the Fact sheet.

### Answers

- orbit
- lithosphere
- continent
- gases
- atmosphere

- 4**
- Tell students to read the information about the three outer layers of the Earth on the Fact sheet. Explain that in these three layers we find things we are very familiar with.
  - Read the example with them. Highlight the fact clouds belong to the atmosphere.
  - Ask students to look at the other pictures and then to write the name of the layer where we can find them.

### Answers

- 1 atmosphere
- 2 hydrosphere
- 3 hydrosphere
- 4 lithosphere
- 5 atmosphere

- 5**
- Ask students if they know why there is day and night. Explain that it is because of a movement of the Earth called rotation. Tell them to read the first two paragraphs in the section *The Movements of the Earth*.
  - Then tell them that there is another movement of the Earth and it makes seasons possible. Ask them if they know why. Then ask the students to read the second paragraph.
  - Tell students that there are two hemispheres in the world. Ask them if they can name them (Northern and Southern Hemisphere). Ask them if they know in which hemisphere their country is. Then elicit the name of more countries in each hemisphere.
  - Ask students to complete activity 5.

- 6** • What season is it in the Northern Hemisphere?

**Answer**

winter

- 7** • Tell students that they have to write about our planet. Encourage them to find information on the internet or in any alternative reference material and write a paragraph.

**Answers**

*Students' own answers*

**Did you know?**

The Earth is the only planet in the Solar System which doesn't have the name of a mythical God.

# The Earth

## Background information

The atmosphere is made up of mostly gaseous materials. Air isn't one gas but a mixture of gases. It's made up of 78% nitrogen, 21% oxygen and 1% other gases.

There are three layers of the Earth:

- The crust: This is the external layer. It's made of rocks and minerals. The oceanic crust is below the oceans, and the continental crust is the rocks which form the continents.
- The mantle: This is about 2,900 km thick. It's also made of rocks.
- The nucleus: It's the innermost layer. There are two sections: the outer core which is liquid, and the inner core which is solid.

## Warm up

- Write the first letter of the planets on the board. Ask students to come to the board and complete the names of the planets.
- Tell students that in this worksheet they are going to learn about the inside of the Earth.

- 1**
- Ask students to work in pairs or in groups. They have to find out how much they know about the Earth. Tell them to complete the quiz.
  - Once they have completed the quiz, tell the students to check their answers using reference books or the internet. Finally, check the answers with the whole class.

## Answers

- 1 c
- 2 a
- 3 b
- 4 c
- 5 a

- 2**
- Tell students to look at the drawing. Ask them what they think it is.
  - Then tell the class that this drawing shows the layers of the Earth. The numbers show the distance between the surface and the centre of the Earth. Ask them if they know the names of the layers in their own language. Then tell students that they need to find the names of them in English. They can use a dictionary or surf the internet.

- Optional: Ask students to find some information about each layer. Tell them to write a short paragraph. Then ask volunteers to come to the front of the class and read their paragraphs.

## Answers

- 1 ocean crust
- 2 continental crust
- 3 mantle
- 4 nucleus

- 3**
- Ask students if they have ever visited a cave and if so, to tell the class about it. If none of them have visited a cave, ask students if they have read books, watched films or read about the interior of the Earth. Do they think the interior of the Earth is similar to what we can see outside?
  - Tell students to write a story about a journey to the centre of the Earth. Ask them to write about the differences they find in the three layers.
  - Optional: Tell students to draw a picture of them travelling to the inside of the Earth. They can also illustrate their story with photos they find on the internet or elsewhere.

## Answers

*Students' own answers*

### Did you know?

TauTona is the deepest mine in the world. It's a gold mine located in South Africa. It's almost 4 km deep. It may seem quite deep but as the center of the Earth is at a distance of over 6,000 kilometres, it's like scratching the Earth's surface.