



DO YOU KNOW?

Lesson Plan

Level 1

3D PRINTING

CEFR Pre-A1 Level

YLE Starters

LESSON OBJECTIVES

Vocabulary

- Technology: machine, microscope, printer (n), print (v), 3D
- Materials: concrete, metal, plastic, paper
- People: astronaut, doctor, scientist
- Animals: elephant, tortoise, wasp, bird
- Parts of the body: beak, heart, jaw, shell, teeth, thumb, arm
- Adjectives: cold, flat, hard, soft, strong
- General: bridge, earth, human, idea, internet, layer, thing, tomorrow
- Places: International Space Station

Grammar

- Can / cannot

Skills

- Reading: for specific information, understanding a process
- Writing: categorizing information about 3D printing
- Listening: for specific information
- Speaking: asking and answering questions about 3D printing and its uses

Resources

- Do You Know? 3D Printing book
- Visit www.ladybirdeducation.co.uk for
 - Reading Activities
 - Video Activities
 - Audiobooks
 - Video clips

LESSON PLAN

Timing: 40–60 minutes

Before reading: 10 minutes

During reading: 20 minutes

After reading: 10 minutes.

Before reading

- Show pupils the cover picture and ask: *What can you see?* Establish that the face is a 3D printing. Read out the title, and check pupils' understanding.
- If possible, hold up some examples of 2D printing. Show pupils the cover picture again and ask: *Is this printing the same as 3D printing? Why/why not?*
- Ask pupils to find more examples of 3D printed objects in the book, for example, the bridge and boat on page 12, and the shoe on page 16.
- Show pupils the Contents page and explain its purpose, using L1 if necessary. Choose some headings, and ask pupils to find the pages they relate to. Have a race to see who can find them first.
- Show pupils the pictures on pages 4–5 and go over the vocabulary. Ask: *Which pictures show people/machines?* Mime some of the vocabulary items. Ask pupils, without looking at their books, to guess the meanings. Award points for correct guesses.

During reading

- Read out or play the audio recording up to page 17 and ask pupils to follow the text in their books. Pause to complete the *Think!* and *Look!* activities to check understanding.
- Continue with the audio recording to the end of the book. After each section, ask questions which focus on *can* and *cannot*. For example: *Can you eat 3D printed food? Can people use a 3D printed heart?*



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- Divide pupils into pairs. Hand out the video worksheets. Check that pupils understand the tasks. Play the videos, pausing after each one to give pupils time to answer. Check their answers.

After reading

- Ask pupils to do the quiz on pages 30–31 individually. Check their answers.
- Ask: *How many 3D printed things can you find in the book?* Get pupils to help you make a list.
- Divide pupils into Teams A and B. Each team writes down five questions with *can* for the other team to answer. For example:
Can you 3D print things in concrete?
How can 3D printers help astronauts?
Award points for correct questions and answers.
- Work through some or all of the activities on the reading worksheets.
- Choose one or more of the *Find Out!* activities or the projects, and set as homework.

DIFFERENTIATION

Extra support

Draw a table with three columns and a heading at the top of each: *What you can 3D print? What you can print with? Who does 3D printing help?* Ask pupils to find the information to help you complete the table.

Extension

Fast finishers can design a 3D printing project to make a useful gift for a relative or friend. They can say how their gift will help that person, and what material they will use, then present their design to the class.