

DESIGN

UNIT 2

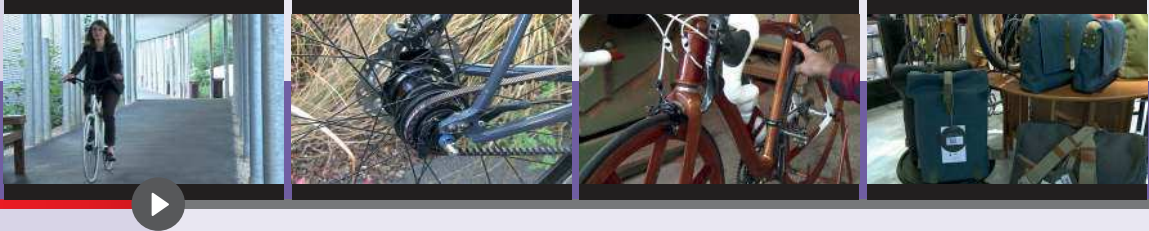
UNLOCK YOUR KNOWLEDGE

Work with a partner. Discuss the questions.

- 1 What is happening in this picture? Do you think this is the most important technological advance of recent years? Why / Why not?
- 2 Do you think that the products we use every day are better now than in the past? Is there any way in which products in the past were superior?
- 3 What types of shopping (clothes, shoes, electronics, household items, etc.) would you avoid doing if you could? How much extra would you be willing to pay to avoid it or them?



WATCH AND LISTEN



ACTIVATING YOUR KNOWLEDGE

PREPARING TO WATCH

1 You are going to watch a video about bicycle design. Before you watch, circle the statements you think are true about cycling in your country. Explain your answers to a partner.

- 1 Cycling is more popular today than it used to be.
- 2 Cycling is a fashionable way to travel.
- 3 Cycling is the best way to get around a city.
- 4 People care what their bicycles look like.
- 5 There are too many different bicycle designs to choose from.

2 Look at the diagram and discuss the question with your partner.

How could a designer make each part of a bicycle special or luxurious?



GLOSSARY

fashion statement (n) something that you own or wear in order to attract attention and show other people the type of person you are

classic (adj) having a simple, traditional style that is always fashionable


gap in the market (n) an opportunity for a product or service that does not already exist

personalize (v) to make something suitable for a particular person

accessory (n) something added to a machine or to clothing that has a useful or decorative purpose

status (n) the amount of respect, admiration, or importance given to a person, organization, or object


WHILE WATCHING

- 3  Watch the video. Number the main ideas in the order you hear them.

- _____ A Japanese designer has started making luxury bicycles instead of boats.
- _____ Hermès have launched two designer bicycles.
- _____ Hermès' designer bikes are extremely popular.
- _____ People are using bicycles to show how much money they have.
- _____ Shops in Paris sell a variety of expensive cycling products.

- 4  Watch again. Complete the sentences.

- 1 Hermès started making designer bicycles because there was a _____.
- 2 The Japanese artisan thinks it is the first time that the whole world _____.
- 3 Paris shops are increasing their sales by _____.
- 4 These days bicycles are becoming a showcase for _____.

- 5  Watch again. Answer the questions.

- 1 What are the special features of Hermès' 'Le Flâneur Sportif'?
- _____
- 2 How much does Hermès' 'Le Flâneur Sportif' cost?
- _____
- 3 How much do some designer bikes cost in Tokyo?
- _____
- 4 What material does the Japanese artisan make bicycles from?
- _____
- 5 What examples are given of cycling accessories sold in Paris?
- _____

DISCUSSION

- 6 Work in a small group. Discuss the questions.

- 1 What kind of people do you think buy the designer bicycles you saw in the video? Why?
- 2 What other kinds of cycling accessories do you think that cycling shops sell? How might they be made luxurious or personalized?
- 3 Do you think that the bicycles you saw in the video would sell well where you live? Why / Why not?
- 4 Think of another type of product that people use to show off their wealth. What are the features of an expensive model of this type of product?
- 5 Are status symbols important to you? If so, which one(s) would you like to have? Why? If not, why not?

UNDERSTANDING
MAIN IDEAS

UNDERSTANDING
DETAIL

LISTENING

LISTENING 1

PREPARING TO LISTEN

USING YOUR KNOWLEDGE

- 1 You are going to listen to a presentation on current and future uses for 3-D printing. Before you listen, work with a partner. Discuss which of the items in the photos you think were produced by a 3-D printer. Then discuss the questions below.



- 1 All these items were made with a 3-D printer. Does that surprise you? Why / Why not?
 - 2 What kind of objects cannot be created with a 3-D printer today?
- 2 Read the definitions. Use the correct forms of the words in bold to complete the sentences below.

customize (v) to make or change something to fit a user's needs

downside (n) disadvantage

drastically (adv) severely; with very noticeable effect

fabric (n) cloth; material for making clothing

foundation (n) the thing on which other things are based

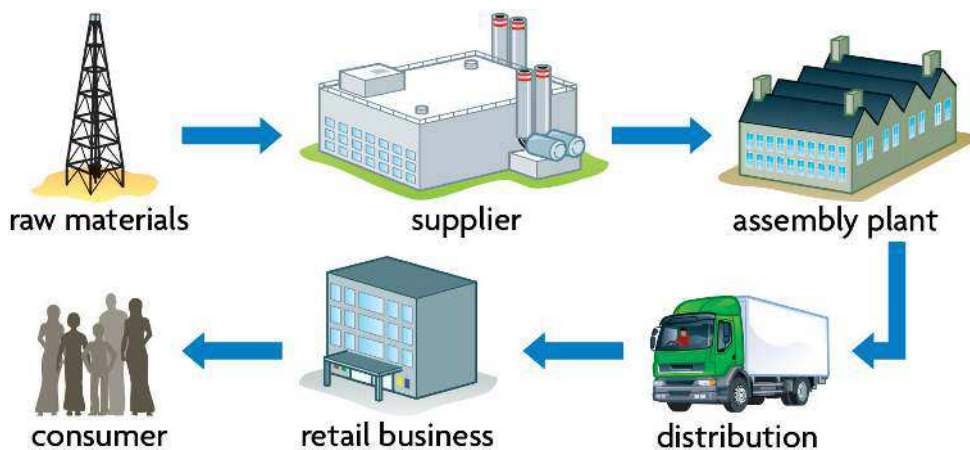
junk (n) things of no use or value

mass production (n) the process of producing large numbers of one thing in a factory

rejection (n) the failure of the body to accept a new body part that has been put in during surgery

- 1 When computers go out of date, they become _____ that has to be thrown away.
- 2 You can _____ the software so that it only includes the functions that you need.
- 3 Early 3-D fashions used a flexible plastic instead of the _____ you find most clothing is made of.
- 4 With a 3-D printer, I can print just about everything. The _____, however, is that it is much more expensive than a traditional printer.

- 5 The maths skills that you acquire in secondary school provide a _____ for the more advanced work you do at university.
- 6 Kidney transplants have a very high success rate these days; the chances of _____ during the first year are only seven percent.
- 7 The market for compact disc players dropped _____ in the early years of the 21st century, as the public switched to MP3 players, and later to streaming.
- 8 The _____ of cars began in the early twentieth century. Prior to that, cars had been produced to order.
- 3 Work with a partner. Look at the diagram of a supply chain. Discuss what happens at each stage.



WHILE LISTENING

- 4 2.1 Listen to the presentation. Circle the best summary of each main idea in the presentation.
- 1 a Replacement body parts are routinely printed.
b Methods of printing replacement body parts are in development.
- 2 a Fashion designers are using 3-D printing in their collections.
b 3-D printing is widely used in the production of fashion items.
- 3 a Mass production will be more profitable with 3-D printing.
b Manufacturing small quantities could be profitable with 3-D printing.
- 4 a 3-D printing will totally change the manufacturing process.
b 3-D printing will benefit everybody who works in manufacturing.
- 5 a We do not know if 3-D printing will increase or decrease waste.
b 3-D printing will reduce the amount we throw away.

USING YOUR
KNOWLEDGE

LISTENING FOR
MAIN IDEAS

SKILLS

Using a table to take notes on main ideas and detail


When a speaker makes the structure of upcoming information clear, it can be helpful to use the same structure as you take notes. Using a table to capture this structure helps you separate the main ideas from the detail. This makes it easier to review and study your notes later. Listen for signposts like numbers (e.g. *There are two ...*), and phrases that indicate that a main idea is coming (e.g. *the most important ...*). Don't try to write down everything you hear. You want your table to provide an outline of the talk, not everything the speaker said.

TAKING NOTES ON MAIN IDEAS AND DETAIL

5  2.2 Listen to an excerpt from the presentation and complete the table.

AM (Additive Manufacturing) disrupts two elements of manufacturing:	
(1) _____	(2) _____
parts made as a single piece	won't need ⁽⁵⁾
(3) _____	or ⁽⁶⁾
stronger	fabricated on demand
(4) _____ -	reduce ⁽⁷⁾
reduced fuel consumption =	short supply chains
cost savings	

LISTENING FOR DETAIL

6  2.1 Listen to the presentation again. Write *T* (true), *F* (false) or *DNS* (does not say) next to the statements. Then correct the false statements.

- _____ 1 3-D printing is a very new technology.

- _____ 2 3-D printing can create body tissue which is a perfect match for the patient.

- _____ 3 Clothing is printed using natural fibres, like cotton.

- _____ 4 Most 3-D fashions will probably be printed in developing countries.

- _____ 5 There has been a lot of opposition to 3-D printing from manufacturers.

- _____ 6 One man printed several parts of an aeroplane and assembled them himself.

_____ 7 3-D printing will reduce the need for companies to hold items in stock.

_____ 8 3-D printing may help criminals to escape from prison.


7  2.1 Listen again. Take more detailed notes on the presentation.

POST-LISTENING

SKILLS

Reviewing and organizing your notes

After a lecture, while the information is still fresh in your mind, rewrite your notes in an outline structure. This helps you understand the main ideas and details of the lecture. Doing this can also help you reflect critically on the content of the lecture, which is difficult to do while you are listening.

8  2.1 Use your answers from Exercises 4–7 to make a set of notes. Start by listing the main ideas (1, 2, 3, etc.) and supporting details for each main idea (a, b, c, etc.). Leave space to add more details. Listen to the presentation again. Check that your notes are accurate and add more detail if necessary.

1. Methods of printing replacement body parts are in development.

a. can create body tissue ...

b.

2.

a.

b.

3.

9 Work with a partner. Complete the tasks.

- 1 Use your notes from Exercise 8 to recap the talk on 3-D printing. Include only the main points and important details. Present it aloud to your partner.
- 2 As you listen to your partner's presentation, write down any important details that your partner included that you missed. Add them to your notes.
- 3 Whose recap do you think was more accurate and complete? Does the order of main points make a difference? Were the details presented with the relevant main points?

PRONUNCIATION FOR LISTENING

SKILLS

Word stress

In words with more than one syllable, one syllable is stressed more than the others. A stressed syllable is generally longer, louder, and higher in pitch than an unstressed syllable.

down-side (n) ad-van-ce (v) con-sum-er (n)

Although stress is sometimes difficult to predict, there are some rules. For example, always stress the syllable that comes directly before these suffixes: *-ical, -ion, -ity, -logy*.

tech-no-log-i-cal cog-ni-tion poss-i-bil-i-ty tech-no-lo-gy

10 Underline the stressed syllables in the words below.

- | | | |
|---------------------|-------------------|---------------------|
| 1 a tech-no-lo-gy | b pro-cess | c ob-ject (n) |
| 2 a com-pu-ter | b soft-ware | c sce-nar-i-os |
| 3 a dra-ma-tic | b bi-o-med-i-cal | c re-search (n) |
| 4 a at-tracts | b pos-si-bil-i-ty | c cus-tom-iz-ing |
| 5 a pro-duc-tion | b fa-cil-i-ties | c in-dus-try |
| 6 a el-e-ments | b foun-da-tion | c man-u-fac-tur-ing |
| 7 a en-tre-pre-neur | b fac-to-ries | c as-sem-bled |

11  **2.3** Listen to the excerpts from the talk to check your answers in Exercise 10.

DISCUSSION

12 Work with a partner. Discuss the questions.

- The speaker mentions the disruptive power of AM several times. What do you think the long-term consequences might be for the clothing industry? For example, what would happen if all clothing could be printed at home?
- Use your imagination to think of an application for 3-D printing that was not discussed by the speaker. Share your ideas with another pair of students or the class.



LANGUAGE DEVELOPMENT

USING CAUSE-AND-EFFECT PHRASES

VOCABULARY

To express a cause using a phrase

What's more, **by printing it as one piece**, he created a part that was five times stronger than the original part and 83% lighter.

What's more, he created a part that was five times stronger than the original part and 83% lighter **by printing it as one piece**.

Notice that, although the subject is not expressed in the cause-and-effect phrase, you can infer it. Such phrases can only be used if the inferred subject is the same as the subject of the whole sentence – in this case, *he printed it as one piece*.

To express an effect using a phrase

The blouses appear on shelves the following week, **encouraging the trend**.

This is a reduction of a non-defining relative 'comment' clause:

The blouses appear on shelves the following week, **which encourages the trend**.

1 Complete the sentences with a phrase that explains the cause.

- 1 _____, manufacturers ensure that consumers buy new items on a regular basis.
- 2 _____, clothing companies encourage people to buy new clothes more often.
- 3 _____, the team completed the project just before the deadline.
- 4 _____, they were able to find a better design for the product.
- 5 _____, manufacturers can print small quantities and keep costs low.

2 Rewrite each non-defining relative clause as a phrase expressing the effect.

- 1 Clothing can be made very cheaply today, which makes it psychologically easier to throw things away.

- 2 AM makes it easier to complete all production steps in one place, which leaves assembly plants in developing countries out of the process.

- 3 AM even has the potential to be used to print human organs, which gives hope to those on transplant waiting lists.



3 Complete the sentences with a phrase that expresses an effect. Use your own ideas.

1 Clothing companies respond immediately to consumer preferences,
_____.

2 Thousands of people throw away their mobile phones every year,
_____.

3 Many resourceful consumers have made their own repairs independently,
_____.

4 The cost of consumer electronics has dropped significantly,
_____.

4 Write three sentences using phrases for cause and/or effect about a situation in your own life. The sentences can be on any topic.

By working on my essay last weekend, I was able to hand it in on time.

_____.

_____.

_____.

DEGREE EXPRESSIONS

Sometimes you need to measure the amount or degree of something against a standard. When the amount or degree does not match the standard, use the adverb *too* + an adjective or adverb for the degree and the *to* + infinitive form of the verb for the standard.

The cost of printing is **too high to make this practical.**
degree standard

When the amount or degree does match the standard, use an adjective, adverb, or verb + *enough* for the degree and the *to* + infinitive form of the verb for the standard.

The costs **have fallen enough to make these scenarios more than a dream.**
degree standard

5 Complete the degree expressions in the sentences with your own ideas.

1 My phone is too old _____.

2 Some consumer electronics are cheap enough _____.

3 _____ to be used with the latest software.

4 _____ are not comfortable enough to wear all day long.

5 Some video games are too complicated _____.

