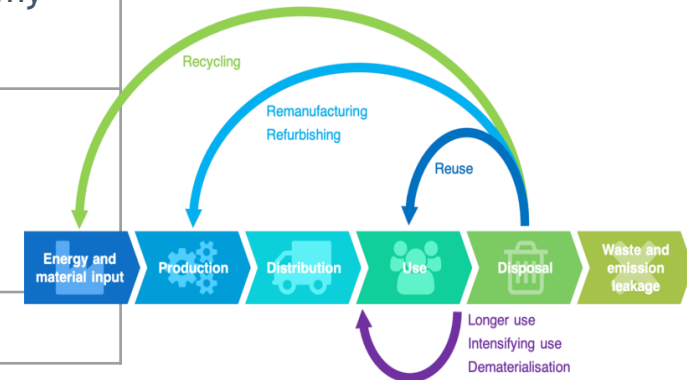


LEVEL	1
LEARNING OUTCOME	L03 The Student can take into account the principles of life cycle thinking and circular economy in relationship to new and existing businesses.
SPECIFIC LEARNING OUTCOME	Students understand the principles of life cycle thinking and circular economy and can evaluate the importance as well as give alternative suggestions for development
KEYWORDS	LCA, life cycle thinking, linear economy, circular economy
INTRODUCTION	You will learn basic knowledge about life cycle thinking and circular economy
HOW TO WORK WITH THIS MATERIAL	<ul style="list-style-type: none"> • Read the theory • Do the exercises
TIMING	approx. 3 hours



Introduction and theory:

- These exercises will help you to understand how companies do life cycle analysis (LCA) about their products. When companies use life cycle analysis (LCA) for their product, they look at five stages: sourcing, production, distribution, consumption and the end of life. The most sustainable life cycle is of course circular. There is a professional tool for companies to do LCA (ISO 14040:2006). This tool can be used for example for planning, developing and marketing.
- These tasks also help you to understand the difference between linear and circular economies. You will get knowledge about a circular



economy and understand why it is more sustainable than a linear economy.

Exercise 1: Understanding Life Cycle Thinking: Case fruit juice

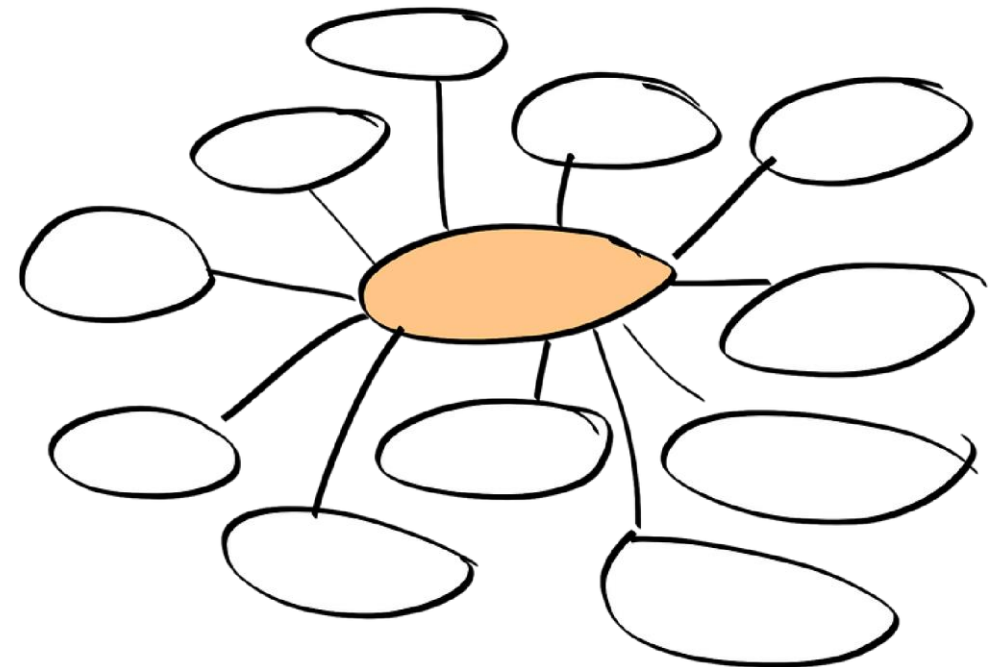
Step 1:

Watch a 3 minute video about "Understanding Life Cycle Thinking».



Step 2:

Make a mind map explaining what is LCA.
Do it on paper or use online tools.



Exercise 2: Life Cycle Assessment (LCA): Case day cream jars

Step 1:

In the supermarket, there are plenty of products. We need to make many daily choices when we pick up a product from the market shelves. It is hard to figure out which one is the most environmentally friendly.

For example,
Would you choose a day cream jar that is made of glass or plastic as a more sustainable option? Why?

Step 2:

Watch 3 minute video
"Understanding Life Cycle Thinking" to understand how companies analyse their products to make them more sustainable



Step 3:

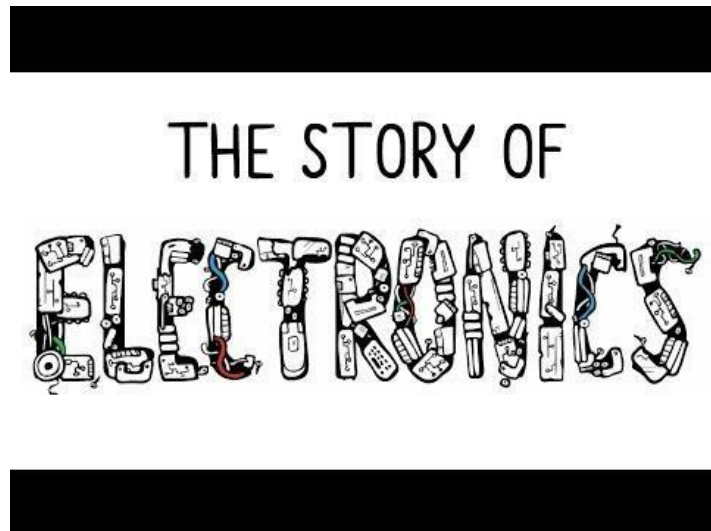
Answer the questions.

According to LCA,
which one of the day
cream jars (plastic or
glass) is more
sustainable? Why?

Exercise 3: Understanding linear economy: The story of electronics

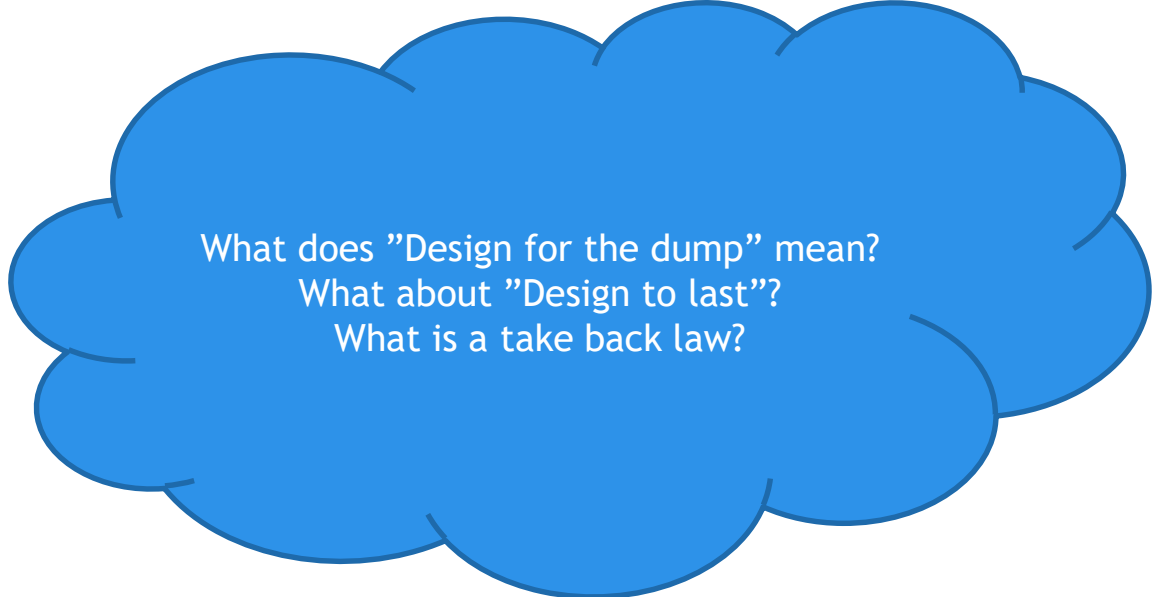
Step 1:

For understanding why linear economy is a bad idea, watch 8 minute video "The story of electronics".



Step 2:

Answer the questions or discuss.

A large, blue, cloud-like thought bubble with a black outline. Inside the bubble, three questions are listed in white text.

What does "Design for the dump" mean?
What about "Design to last"?
What is a take back law?

Exercise 4: Circular economy

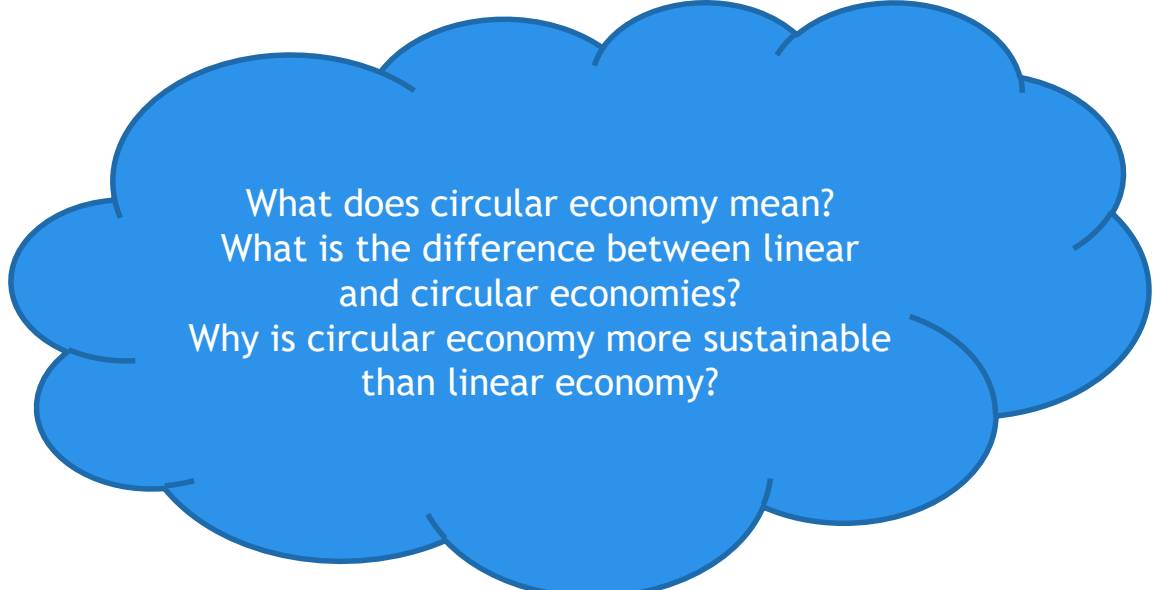
Step 1:

Now you know why the linear approach is not a good idea in the long term. Watch the 4 minute video "Explaining the Circular Economy and How Society Can Re-think Progress".



Step 2:

Answer the questions or discuss.

A large, blue, cloud-like thought bubble with a white outline, containing three questions.

What does circular economy mean?
What is the difference between linear and circular economies?
Why is circular economy more sustainable than linear economy?

Exercise 5: Business Models for the Circular Economy

Step 1: Now you should understand the difference between linear and circular economies. The next step is to understand how the circular economy approach works in business life and what sort of business models a company can use. First, see what the five business models for circular economy are, then watch the Finnish examples about circular businesses.



Five business models for more circular economy:

- Using more sustainable and renewable materials
- Recycling materials
- Making the product last longer
- Selling services rather than products
- Sharing products

The logo for RePack, featuring the word "RePack" in a bold, sans-serif font with a stylized arrow pointing to the right, and the website "originalrepack.com" below it.

RePack
originalrepack.com

Repack is selling reusable packaging

<https://www.repack.com>

Marimekko (design) is making loncel-fiber from birch

<https://www.aalto.fi/en/news/from-birch-to-poppies-how-the-fabric-was-created-for-marimekkos-unique-shirt-dress>

Bike rental <https://www.10bikes.fi/>

GlobeHope (design) is making ecological products made of recycled materials; leftovers and textile waste <https://globehope.com/>

Lindström is selling work uniforms as a service

<https://www.sitra.fi/en/cases/work-uniforms-service/>

Exercise 5: Business Models for the Circular Economy

Step 2:

What circular economy business model the company is using?

Draw a line to right company.

Using more sustainable and renewable materials

Recycling materials

Making the product last longer

Selling services rather than products

Sharing products

ReBack

Bike Rental

Lindström

Marimekko

Globe Hope

Step 3:

See local business examples from Kurikka, Finland and try to find examples from your own country and region!



<https://sway.office.com/dDw7FmzSJDpZJBA?ref=Link>



<https://sway.office.com/hs3KMm5u0jk44YnT?ref=Link>



<https://sway.office.com/W6R47CUFihePie9c?ref=Link>