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# Redesigning Plastics - PART 1

The New Plastics Economy





With the



This lesson inspires creative problem solving towards 5 of the



**THE GLOBAL GOALS**  
For Sustainable Development





# WHAT IS MADE OF PLASTIC?

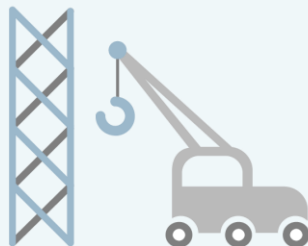
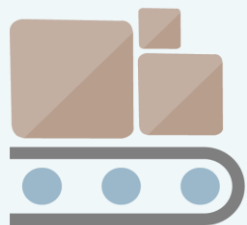


Write down as many things as  
you can!

**GO! - 1min**

# APPLICATIONS

Plastics are everywhere



# From Football to Make-up

It's all plastic



# What is it good for?

The Pros and Cons of plastics

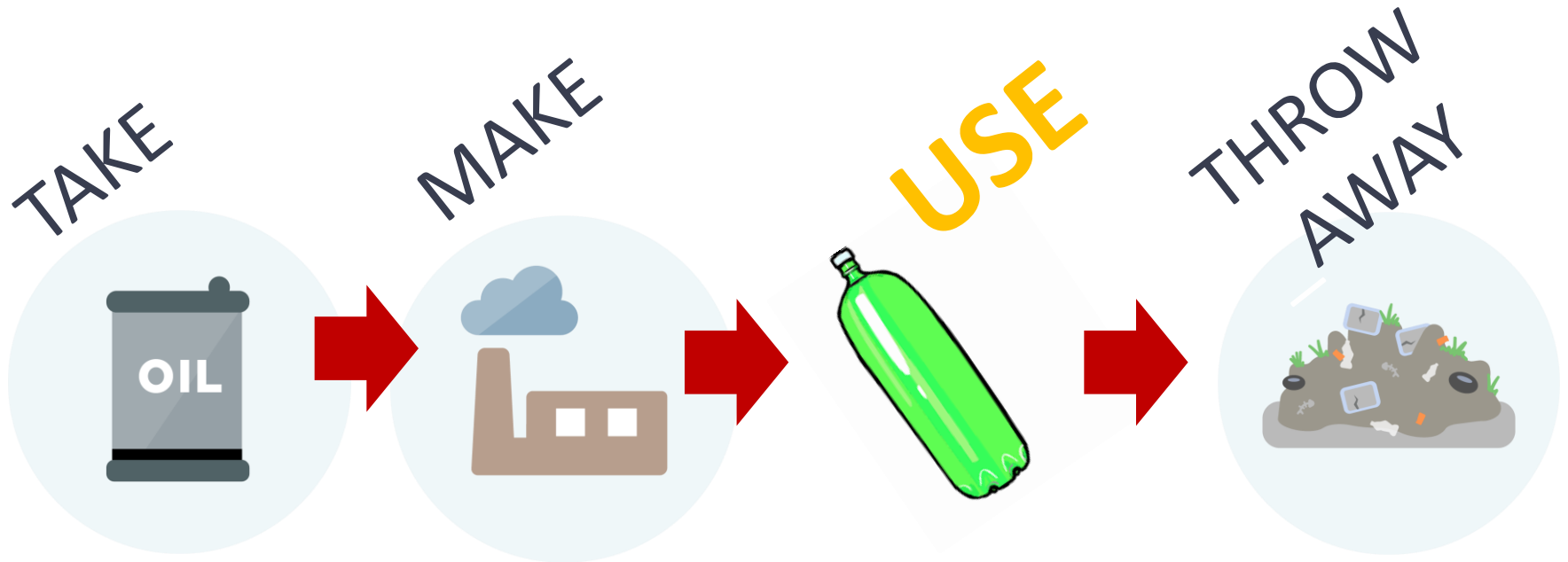


On your post-it notes:

- 1) Write down all the good things about plastic
- 2) Write down all the bad things about plastic

# HOW ARE PLASTICS PRODUCED?

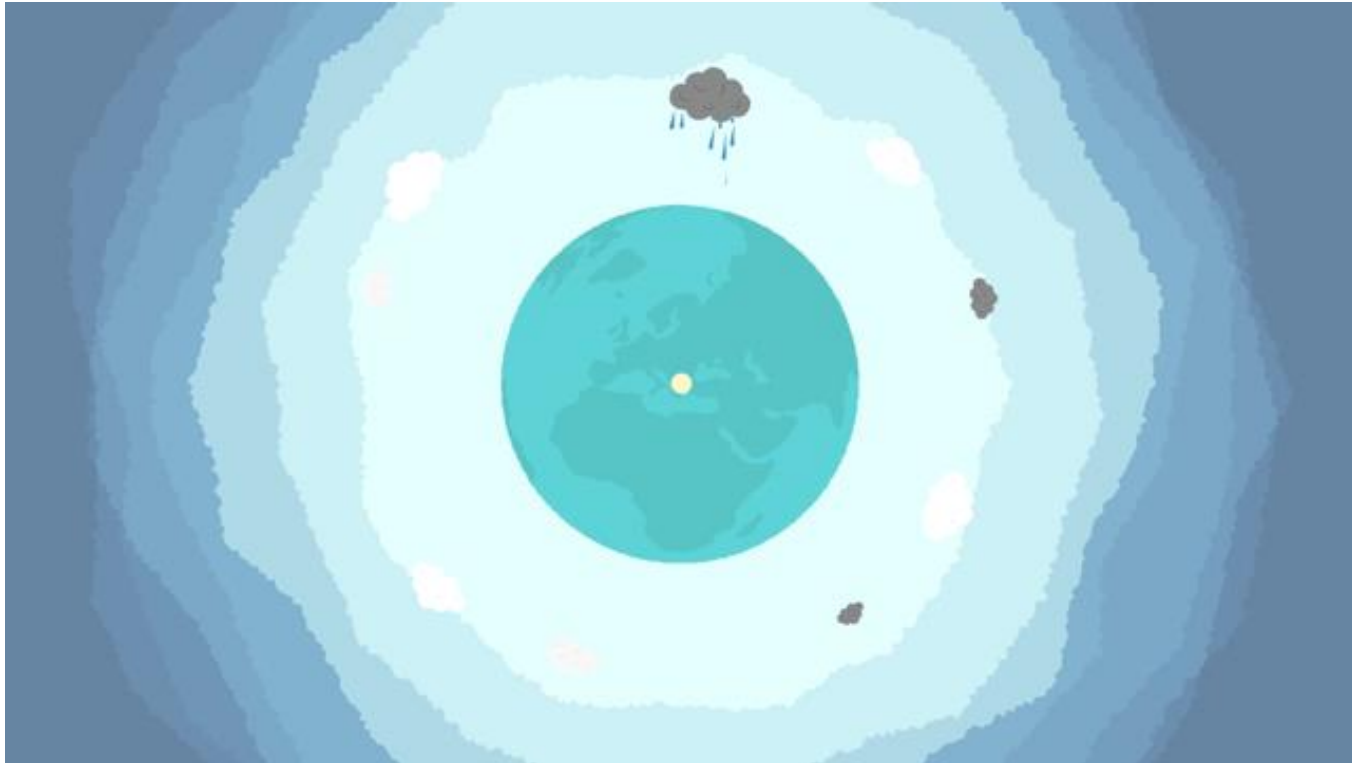
A linear system





# CIRCULAR ECONOMY

Learning from natural systems



## Quick re-cap: What do you understand from the video?



# FROM LINEAR TO CIRCULAR

## LINEAR ECONOMY



TECHNICAL & BIOLOGICAL MATERIALS MIXED UP

ENERGY FROM FINITE SOURCES

## CIRCULAR ECONOMY



ENERGY FROM RENEWABLE SOURCES

### PRINCIPLES OF A CIRCULAR ECONOMY

WASTE = FOOD  
DIVERSITY = STRENGTH  
ENERGY = RENEWABLES  
PRICE = REAL COST

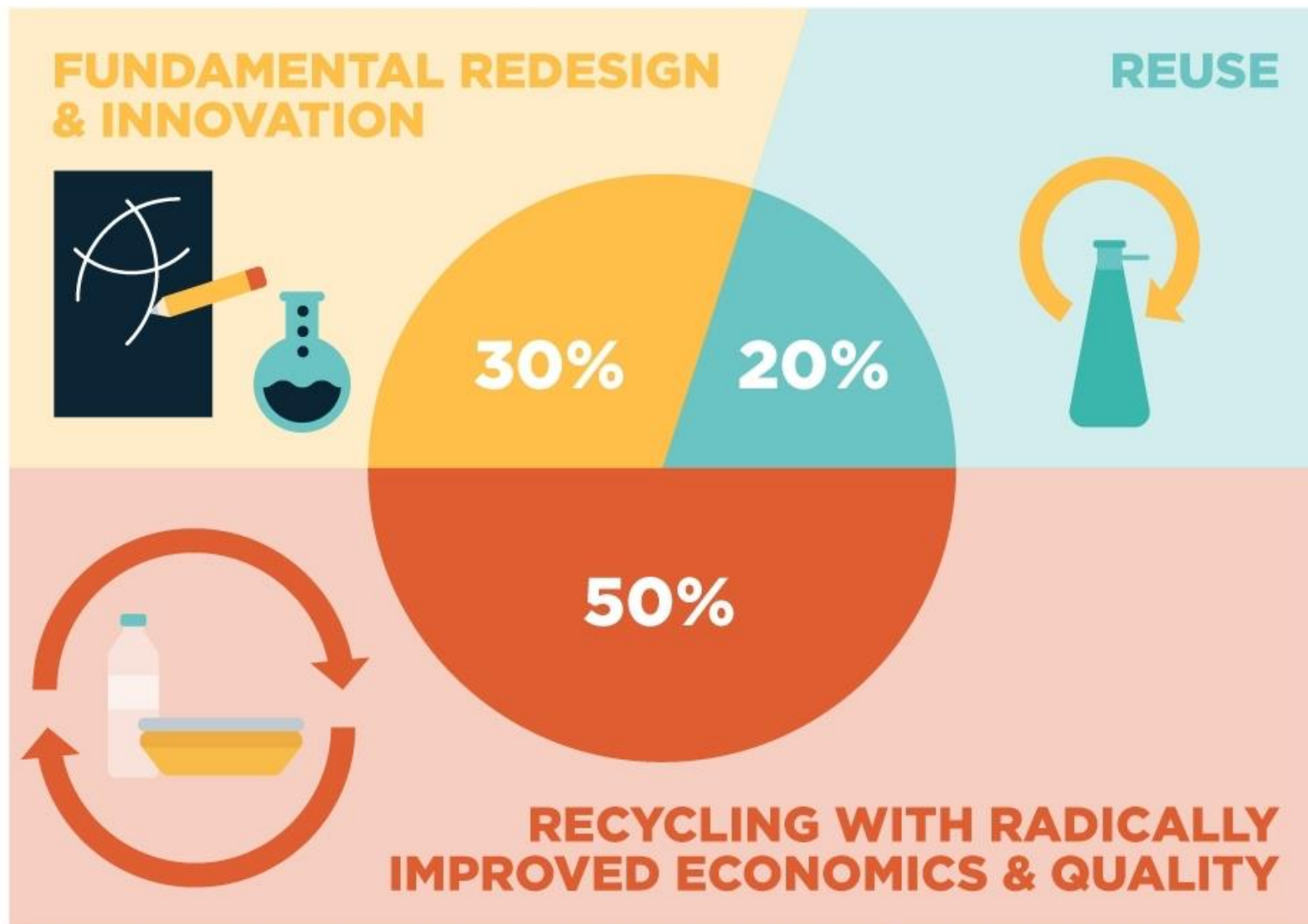
BIOLOGICAL MATERIAL  
SAFELY ENRICHES  
NATURAL SYSTEMS...



TECHNICAL MATERIALS DO NOT  
COMPOST. THE PRODUCTS ARE  
MADE TO BE MADE AGAIN...



# Three strategies to transform the global plastic packaging market



# An example combining this

A new way of doing business?

- 1) Keep materials in the loop
- 2) Nothing becomes 'waste'





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## Redesigning Plastics - PART 2

The New Plastics Economy





# DESIGN CHALLENGE

Small groups, big change



What process did they go through  
to get to you?



# DESIGN CHALLENGE

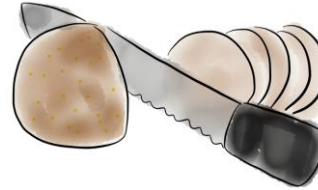
The potato journey

1



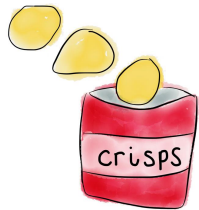
Potatoes were grown, then harvested

2



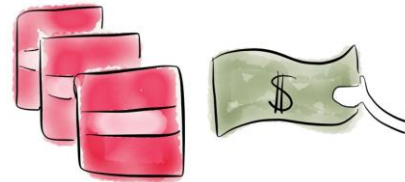
They were taken to a factory where they were baked, sliced and processed.

3



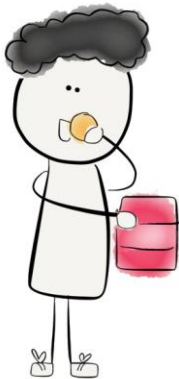
The crisps were baked then put into a bag

4



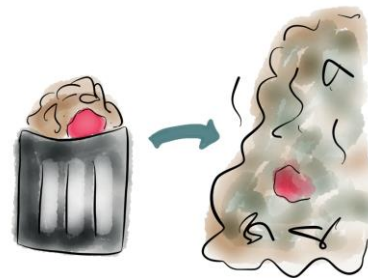
I bought them at the shop

5



Then I ate them

6

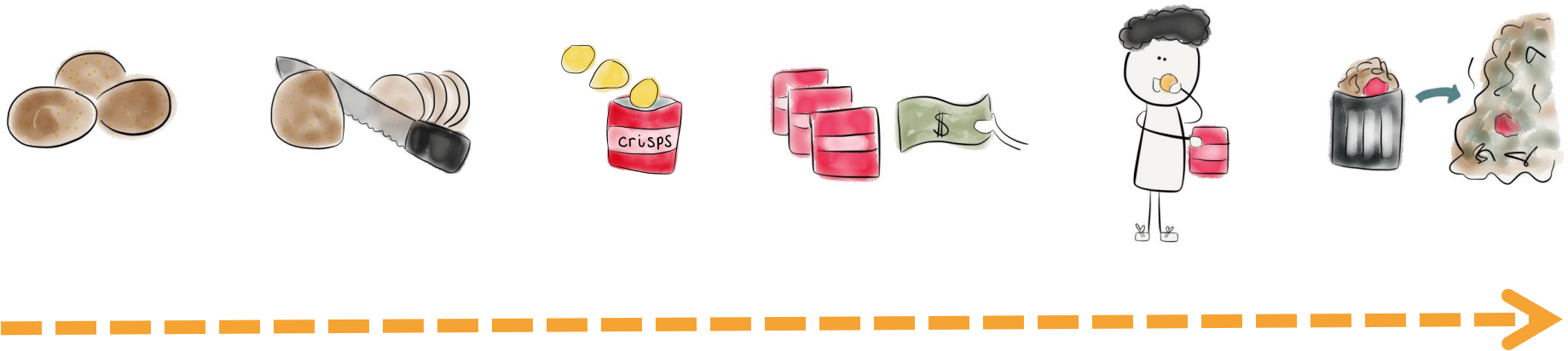


The packet will go to the dump



# DESIGN CHALLENGE

The linear story

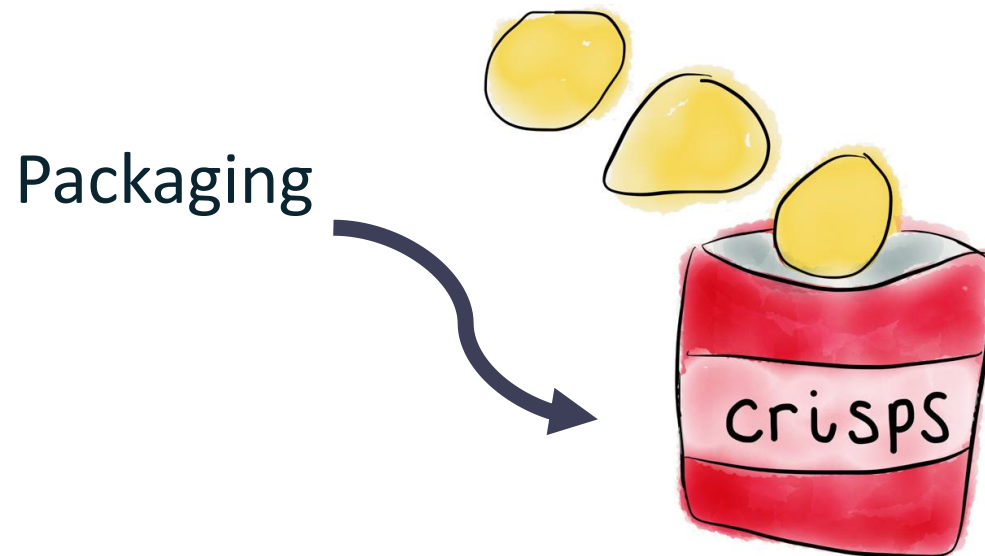


# DESIGN CHALLENGE

Small groups, big change



## How might we re-design packaging?



Packaging

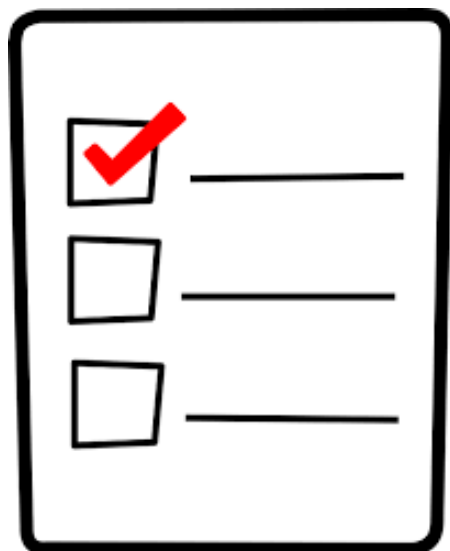
# LET'S REDESIGN

Here's an example from real life



# What can be done to make the circular economy a reality for plastics?

Now that you have learned about plastics, list all the steps that can be taken to improve the plastics system...

A graphic of a checklist inside a rounded rectangle. It contains three items, each with a square checkbox and a horizontal line for text. The first checkbox is checked with a red checkmark, while the other two are empty.



# ELLEN MACARTHUR FOUNDATION



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