

SUSTAINABILITY

YEAR 6

Autumn 2



LESSON 3

What is a life cycle assessment?



Do Now – Retrieval practice

1) What does this symbol represent?



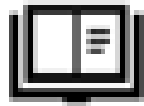
2) What are the three R's for supporting sustainability?

a) _____

b) _____

c) _____

3) Give two examples of synthetic materials.





Read the following passage about the two types of cup that we will assess.

Coffee shops in the UK have recently started giving a discount when customers bring their own mug. The takeaway cups that they use are made of a mixture of paper and plastic that is difficult to recycle. To decide whether to recommend the use of a certain item over another they look at the environmental impact of that item over its lifetime including: how it is made; how it is used and how it is disposed of.



What do scientists consider when performing a life cycle assessment?

	 <p>Coated paper cups</p>	 <p>Reusable travel mugs</p>	Judgement
Raw materials	Wood is non-renewable	Crude oil is a finite	
Amount of material required?	Smaller	Larger	
Reusable?	Can only be used once	Can be reused many times	
Biodegradable	Can be broken down naturally by the environment	Cannot be broken down naturally so will exist for a very long time in landfill	
Recyclable	Cannot be recycled so must be disposed of in landfill	Could be recycled into another useful material	

Scientists estimate that a reusable travel mug needs to be used **between 20 and 100 times** to be better for the environment than a coated paper cup, you are going to write an evaluation of these two cups and decide which one is better.



Evaluate the use of coated paper cups compared with reusable travel mugs.

Plan:

Coated paper cups are better because...	Travel mugs are better because...
Overall I think that _____ is better because.....	

Write:



Should we be angry when people use cups that are hard to recycle?

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