The Story of your Breakfast
A Transition Cambridge Workshop
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Information on workshop

This workshop is designed for years 7, 8 & 9. It can be adapted for GCSE classes by further discussion on the impacts of energy use on the environment. This will be better suited for geography and biology GCSE classes.

Things that will be needed:

1. Set of large food production cards 1-19 x1
2. Set of small food production cards 1-19 x4 (or one set per smaller group)
3. Set of breakfast food/environmental impact cards x1
4. Set of Bread Cards of different loaf types.
5. Recipe cards/gardening cards/transport cards – to inspire trying out new skills. (optional)
6. Samples of homemade cake/bread (optional).
7. Examples of the loaves on bread cards. Particularly good is surprising them with a loaf with a really long best before date e.g. 5 months and then reading out all the ingredients. (optional)

Aims

1. To introduce the idea that everything uses energy and that oil is the major source of energy.
2. To demonstrate that energy use has an impact on the environment.
3. To introduce the main areas of energy use in relation to food production.
4. To present skills that can be used to reduce energy use and that they can be fun.

Plan

Ask who knows what uses oil?
Petrol for transport, factories that make things to make electricity.
What uses electricity?
Aim- To introduce idea that everything uses energy.
Ask if they know what climate change is. With this age group you should expect a few answers, use the glossary definition to clarify.
Ask if they know what peak oil is. Most will not have heard of it, give definition from glossary and say that both climate change and peak oil are both interlinked because require us to use less energy.
Congratulate them that they know so much already and state that this workshop is not going to lecture them on what climate change is, there will be no graphs, because they already are so informed. Instead you are going to be talking about your breakfast!

Ask what they had for breakfast that day. Give out the breakfast cards to those that give that item as their answer, ask them not to turn it over.
Ask if they think lots of energy was used to make their breakfast and what it was used for. Ask them to turn over the breakfast cards and read out the impact.
Ask if they are surprised that that their breakfast has such a big impact. Tell them they are going to play a game that might help explain it.
Tell them you had white toast this morning and you are going to get them to figure out what energy was used to make it.

Different stages of energy used- Give the cards out to the class one per person, but not in their order. If you have too many students, some can pair up. If you are going to have too few students, find out ahead so you can pair up the cards beforehand into order. Get the students to read the cards out loud to the class in turn, again, not in order.

These will all be on cards with a bit more information about that process on the back of the card.
1. Fuel for machinery for mining phosphates for fertiliser to grow wheat.
2. Fuel to transport fertiliser to farm.
3. Sterilising water for irrigation (watering the wheat)
4. Fuel to transport wheat to mill.
5. Electricity for machinery to mill wheat into flour.
6. Electricity for machinery to remove husks and bleach flour to make it white.
7. Fuel to transport flour to bakery.
8. Electricity used for machinery to make preservatives. (To make bread last longer)
9. Fuel to transport preservatives to bakery.
10. Electricity used in baking factory to mix and bake bread.
11. Fuel used to extract oil for making packaging.
12. Electricity used to make plastic out of oil for packaging.
13. Fuel to transport packaging to bakery.
14. Fuel to transport bread to supermarket depot.
15. Fuel to transport bread to supermarket.
16. Fuel to transport bread home.
17. Electricity used for toaster.
18. Fuel to transport packaging as rubbish to landfill.
19. Fuel used for machinery to landfill rubbish. (To compact and bury the rubbish)

Ask the class to put themselves in the right order of events to get to you eating your toast in the morning. It will work best if you and the teacher can help the students who are finding it hard. Give the teacher a copy of the end plan beforehand. The students can do this by standing round the room in a line or horseshoe shape and lie the cards on the floor in front of them. Get them to read out the cards in the order in front of them. Discuss as a group why they had trouble, and if they haven’t found the right order, you can get them to change it now.

Now split the class into 4 groups. Each group will be given a smaller set of the same cards. Each group will also get a bread card stating a different type of loaf. They will then have to put the cards in the right order, taking out the cards that are no longer relevant. If some groups finish earlier it might be good for them to think about if other stages would need to be put in instead. Get one person from each group to say the order and what processes are no longer needed. Then get them to discuss what the main processes are that can be removed. Get them to tell you and put them on the board. Hopefully these are the main ideas that should come out:

2. Processing- Preservatives, adding bleaching
3. Packaging- energy used to make and dispose of.
4. Transport- in the process- supermarket depots, local shops, making at home.
5. Transport- to get it home; car, bike, walking etc

Ask how we can avoid these things. Hopefully these are the main ideas that should come out:

Our own skills-
2. Cooking- Saving all the processing and all the transport needed for it.
3. Cycling and walking- Go to the shops by cycling or walking or by bus.
4. Recycling or reusing – Mending things or giving to charity etc.

At the end discuss how this is all part of what Transition Cambridge is about. Give out recipe cards for cakes and bread and give out samples. If any other projects in place such as a school allotment or after school group, let the students know.
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