



## Lesson 4: School Summer Climate Action Challenge, Part one

### Introduction



*Teacher notes: 10 minutes*

As a team, we are going to design a climate action challenge for the whole school to participate in during the summer term next year.

Our first step is to undertake research into what our topic should be for this challenge. We are looking for something that people can do to make a difference in a relatively short period of time (2 months). To help us with this, we are going to start with an 'audit' of our use of energy during a school day.

We are going to 'walk through' your typical day at school and build a map of your day on a large piece of paper as we go to help you visualise and record your thinking. (This would be good to do as a group but can also be done individually). At each point in your day we are going to identify the points where you are dependent on fossil fuels.







The two main ways your day will be dependent upon fossil fuels is:

	If some form of energy is being used directly in what you are doing (electricity; oil; gas; petrol)
	Where you are using materials that require some form of energy/ element of fossil fuels to be used in their manufacture (e.g. pumping of water; heating of natural materials; materials made from oil – plastics etc.)

Have 3 different coloured pencils/ pens available – black to draw your map; red to mark on the map and describe moments when energy is being used directly; blue to mark on the map and describe moments when you are using materials that require use of energy in their manufacture.


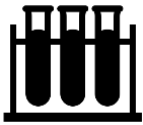



### Exercise 1; Beginning and End of the School Day

Teacher notes: 20 minutes

	<p>Start your map with how you arrive at school – do you walk; get dropped off by car; catch the bus; ride your bike...?</p>
	<p>Now draw the entrance to the school on your map and think about what you see and do as you walk through the school gates. Mark on the map moments when you think energy is being used. Is there a buzzer? Are there cars in the carpark that have brought your teachers in? Are there lights on outside so you can see?...</p>
	<p>Walk into the school building...what do you see and do? Does it feel warm or cold? Are the lights on? Is there a bell to call you to assembly or class?...</p> <p>Add the entrance to the school building and all the 'energy moments' onto your map – don't forget to label each of them with what they are and use the colour coding (red for energy being used; blue for materials that have used energy in their manufacture)</p>
	<p>Arrive in your first classroom for registration...what do you see and do? Do you have an individual desk and chair that you sit down at? What are these made of?...</p> <p>Add your first classroom to the map and all the 'energy moments' with labels...</p>
	<p>Arrive in assembly...what do you see and do? What materials are being used that have required some form of energy in their manufacture?</p> <p>Add your assembly hall to the map and all the 'energy moments' with labels...</p>
	<p>Think about leaving school. Is there anything else you notice that uses energy at the end of the day? Add it to your map...</p>






## Exercise 2: Lessons

Teacher notes: 20 minutes

	<p>Now let's focus on your lessons. Add to the map the classrooms where you learn...</p> <p>What materials and equipment do you and the teachers use in these lessons?</p>
	<p>Add the science labs and the materials and equipment used there...</p>
	<p>Add the playing fields and sports halls you use – and the materials and equipment you use there...</p>
	<p>Add the places where you learn about art and drama – and the materials and equipment you use there...</p>
	<p>Add the places where you learn about computing and technology – and the materials and equipment you use there...</p>

### Exercise 3: Lunchtime and breaks

Teacher notes: 20 minutes

	<p>The lesson bell has rung for lunch – think about your lunchtime. What do you do? Where do you have lunch? Do you have a school meal or bring your own? Think about the place where you eat – add it to your map and the energy used in that space. What materials are you using that will have required energy to make them?</p>
	<p>Think about the making of these school meals and add the school kitchens to your map. What do you think might use energy in these kitchens? What materials are used that will have required energy to make them?</p>
	<p>What food and drink are you consuming during lunchtime and breaks? What is your typical lunchtime meal? Think about where these originally came from and what energy might have been consumed to get them to your plate and cup. What are they packaged in? Add these thoughts to your map.</p>
	<p>What kind of activities do you spend your time on during lunch and break times? And where? Add these thoughts to your map.</p>
	<p>And what about when you use the bathroom? Add these to your map and the materials that are used that will have required energy to make or supply them?</p>



## Concluding the lesson

*Teacher notes: 5 minutes*

Step back and look at the map you have prepared. You have created a visual 'audit' of how the school uses energy directly and through using materials that require energy/ fossil fuels to make them.

The more energy used in total that is generated from fossil fuels, the larger our carbon footprint.

In our next lesson, we are going to investigate areas of current activity that the school could do differently and in a more environmentally friendly way by:

- Using less by changing the ways things are done
- Using materials that use less energy in their manufacture
- Using more sources of energy that are renewable
- Offsetting your carbon footprint by creating new natural environments (woodland)