Challenge 1

FIND OUT?

About plastic recycling in your local town / city / area

What type of plastics can be recycled?

How can you recycle them?

What sort of plastics cannot be recycled and why not?

Where does the plastic go next and what happens to it?

What sort of things can be made from recycled plastic?



Challenge 2





Challenge 3 WHAT IF?

What if global warming caused the ice caps to melt and the sea level rises?

Check it out on this interactive map here:

<http://ngm.nationalgeographic.com/2013/09/rising-seas/if-ice-melted-map>

What problems would this cause – for you, for your family, for your community, for the world?

What could / should be done to stop this happening?



Challenge 4



Challenge 5

Match the clue to the formula and the composition. The first one has been done for you.

|  |  |  |
| --- | --- | --- |
| Clue | Formula | Composition |
| 1) 1p and 2p coins contain some of this | Au | One atom of calcium, one atom of carbon and three atoms of oxygen |
| 2) Over 70% of your body is made of this | CaCO3 | One atom of copper |
| 3) This gas will make a popping sound with a glowing splint | CO2 | One atom of gold |
| 4) This metal is attracted by a magnet | Cu | One atom of iron |
| 5) This metal is used to make jewellery | Fe | One atom of oxygen joined to two atoms of hydrogen |
| 6) You breathe in more of this gas than you breathe out | H2 | One atom of sodium with one atom of chlorine |
| 7) You breathe out more of this gas than you breathe in | H2O | Two atoms of hydrogen joined together |
| 8) You can write on a blackboard with this | NaCl | Two atoms of oxygen joined to one atom of carbon |
| 9) You might put this on your chips | O2 | Two atoms of oxygen joined together |

Challenge 6

TABOO

You need two players for this game.

DO NOT LET YOUR PARTNER SEE THIS SHEET.

Try to describe the following items to your partner without saying any of the “taboo” words. If they get it right, give it a tick and move on to the next one.

|  |  |  |
| --- | --- | --- |
| GasTaboo words – solid, liquid, particles | DiffusionTaboo words – particles, move, spread | AtmosphereTaboo words – Earth, gas, air |
| OxygenTaboo words – breathe, air, gas | OzoneTaboo words – oxygen, layer, hole | PolymerTaboo words – many, chain, long |
| MoleculeGas, element, atom | StarchPolymer, bread, potatoes |  |

Now, think of some more examples from this topic, including the taboo words to use with them.

E.g. plastic, recycling, global warming

What taboo words would you use?

Challenge 7 Can you find out the raw materials which are used to make these man-made materials?


Challenge 8

Climate change – advantages and disadvantages

<http://www.tes.co.uk/teaching-resource/Energy-World-Activity-Cards-6117402/>