

Earth in danger

1 QUIZ - HOW ENVIRONMENTALLY CONSCIOUS ARE YOU?

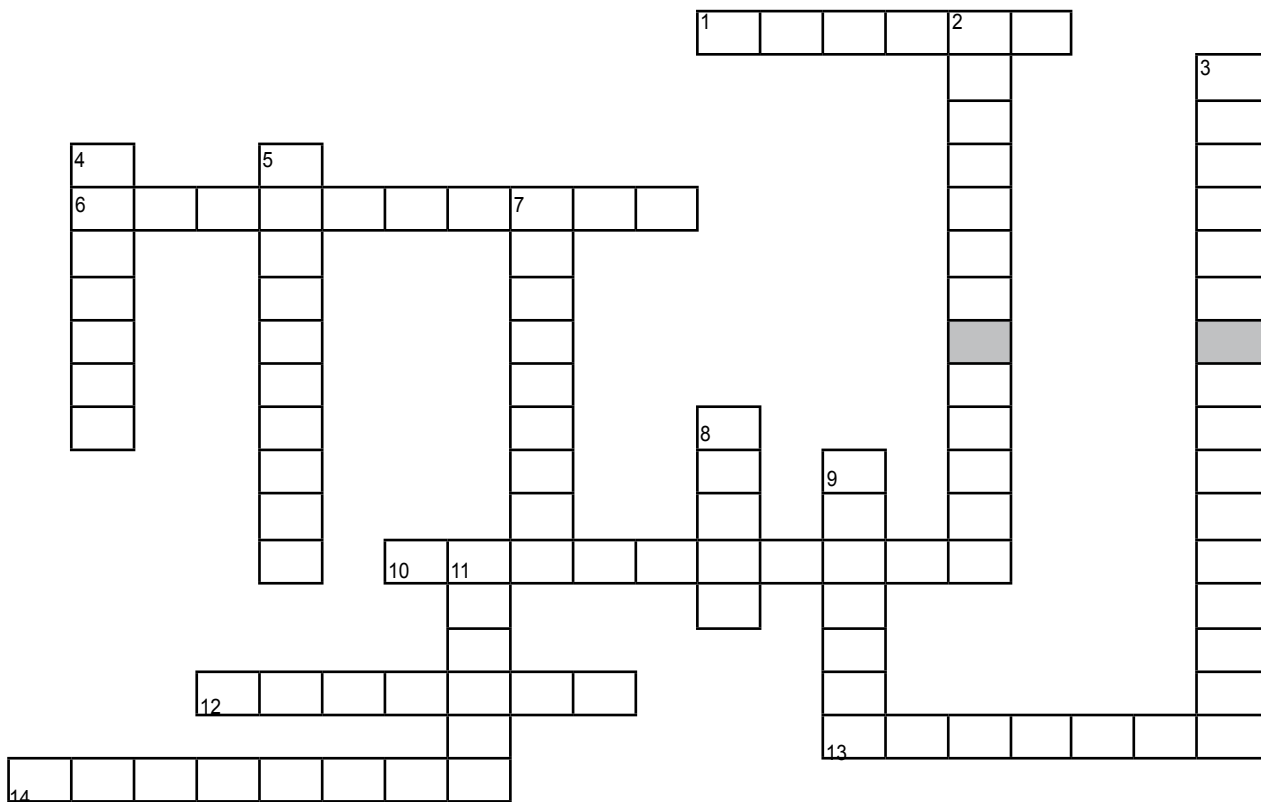
Circle your answers and then add up your points. The more points you have, the more environmentally conscious you are.

How often do you ...	always	sometimes	never
... drink bottled water?	-1	0	+1
... unplug/disconnect your TV over night?	+1	0	-1
... take a bath (instead of a shower)?	-1	0	+1
... go to school by car?	-1	0	+1
... walk or ride a bike to school?	+1	0	-1
... recycle paper?	+1	0	-1
... recycle bottles?	+1	0	-1
... give old clothes to charity?	+1	0	-1
... eat meat?	-1	0	+1

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2 WHAT DOES IT MEAN?

Write the words from the article into the crossword. The number of letters for each word and the paragraph number where the word appears are in brackets after each clue.



Across

1. to take in a gas, liquid or other substance (6, para 8)
6. the air round the Earth or round another planet (10, para 3)
10. causing a lot of damage or harm (10, para 5)
12. to make air, water or land too dirty and dangerous for people to use in a safe way (7, para 8)
13. a long period of time when there is little or no rain and crops die (7, para 6)
14. places that particular animals usually live in or particular plants usually grow in, for example a desert, forest or lake (8, para 8)

Down

2. places where large amounts of rubbish are taken, usually outside a town (7 + 5, para 8)
3. something that is _____ works well and uses the power supply (electricity, gas, oil, etc.) in the most effective way (6 + 9, para 9)
4. a serious illness caused by being bitten by a mosquito, usually in a hot country (7, para 1)
5. do something to help make something else happen, even if you don't want to (10, para 4)
7. substances, especially gases, that go into the air (9, para 9)
8. to use more of something than you need (5, para 7)
9. when land is underwater as a result of lots of rain or rising water levels (7, para 6)
11. subjects that people discuss or argue about, especially relating to the environment, politics, etc. (6, para 2)

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EARTH IN DANGER

by Toby Skingsley, Martin Simmonds and Talitha Linehan



1

The year is 2080, and the world is a very different place. Sea levels have risen and flooded millions of homes. London, New York and many other cities are underwater. The Earth has become a lot warmer, and heatwaves are killing crops. People are fighting because they don't have enough food or clean water. Malaria is common in Europe, and many of the animals and plants we know have disappeared forever. This sounds like the story of a Hollywood film. But it could really happen if we keep damaging the environment.

2

Many issues affect the environment but which ones could cause the biggest problems in the future? Claire Addison, 23, from Edinburgh, works for an organization called Envision in London, which teaches teens about environmental issues. "The biggest problem for our planet is climate change," Claire explains. "Greenhouse gases are causing higher temperatures around the world, which is causing ice to melt and sea levels to rise."

3

Many people talk about factories and industry but the truth is: we all cause climate change. Lots of our favourite things – like mobile phones, televisions and computers – need energy to work. Most of this energy comes from burning fossil fuels like coal, oil and natural gas, which releases carbon dioxide (CO₂), methane and other gases into the air. These greenhouse gases trap the heat from the sun in our atmosphere, which makes our world warmer.

4

- We all contribute to climate change whenever we:
- travel by car, by plane or on public transport.
 - take a bath or shower with hot water.
 - turn on the heating.
 - use electricity that comes from fossil fuels.
 - buy products that need lots of energy to make and/or come from far away.

Did you know?

The energy used on a return flight from Europe to Australia could power your house for six years!

What in the world is happening?

5

There are already signs that our climate is changing. "In Bangladesh there are more storms, which makes it difficult to grow crops," says Claire. "Flooding is becoming worse, and people are dying of diseases found in the water." Some scientists think the Earth could be six degrees warmer by 2100. That doesn't sound like a lot, but it would have disastrous effects:

6

Wild weather: There could be more drought and desert in Australia and Africa, and dangerous heatwaves in Europe. Or the Gulf Stream, which normally keeps Northern Europe warm, may change and make Europe a lot *colder*. This is not only bad for us – it can also badly affect animals and plants.

Did you know?

A warmer climate means giant snakes! Cold-blooded animals grow much bigger when the weather is warm.

Wet wet wet: Sea levels could rise, covering low-lying areas like Bangladesh, the Netherlands and Florida. Even London and New York could be flooded.

Death and disease: Malaria and other tropical diseases could spread to Europe.

Using too much?

7

Do you throw things away even though they're not really broken? Do you buy more food than you can eat, and use more water than you need? Most people don't realize how much they waste. But we're cutting down trees faster than they can grow back, using more energy than the planet can give us and producing more rubbish than nature can deal with.

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The facts

8

If we keep using more than nature can give us, there'll soon be nothing left.

Goodbye green: We've already lost two thirds of the world's forests. Every year, we cut down 160,000 square kilometres – an area the size of England and Wales! This is also bad news for climate change because forests absorb a lot of CO₂.

Did you know?

A running tap wastes around six litres of water per minute!

Helpless habitats: When we cut down trees or build new things, we destroy the natural habitats of animals.

Dirty dumps: Our rubbish dumps pollute the air and land, and our plastic ends up in the sea. There are even rubbish dumps for old aeroplanes and ships.

You can help!

9

Our homes produce around 30 per cent of CO₂ emissions. Everyone knows we can save energy by turning off lights and using energy-efficient light bulbs. But there are lots of other simple things you can do:

- ✓ Unplug your television and laptop. They use energy even when they're turned off. Always unplug your phone charger after your phone is charged.
- ✓ Turn down the heating by one degree. This can reduce your energy use by ten per cent!
- ✓ Take a short shower instead of a bath. A bath uses about 100 litres of hot water.
- ✓ Put the lids on pots and pans when you're cooking.
- ✓ Keep your fridge full. Empty fridges need more energy to stay cool.
- ✓ Don't boil more water than you need.

Did you know?

People in Britain drink 165 million cups of tea a day! If they boiled only as much water as necessary, they'd save enough electricity to power 300,000 homes for a whole year.

How to use less!

10

We need to use less. "We should live in a way that leaves enough for future generations," says Claire from Envision. Recycling more and driving less are good ways to help. But try out these tips too:

- ✓ Use things for as long as possible. It takes energy to make new products.
- ✓ If your old stuff can still be used, give it to charity instead of throwing it away.
- ✓ Eat less meat! Meat production uses lots of energy, and rainforests are destroyed to make space for cattle.
- ✓ Wash fruit and vegetables in a bowl, then use that water for your plants.
- ✓ Turn off the tap while brushing your teeth. Use a normal toothbrush instead of an electric one.
- ✓ Drink tap water instead of bottled water.
- ✓ Keep water in the fridge so you won't have to run the tap until the water gets cold.
- ✓ Take your own travel mug to the coffee shop instead of using paper cups.

Did you know?

Greenhouse gases aren't completely bad. Without them, the sun's warmth would escape and the earth would be covered in ice!

Population zero

What would nature do if we disappeared and didn't use up any more resources? Without humans, plants and wild animals would take over our cities. Within five years, parks would be overgrown and plants would cover our roads and buildings.

After 500 years, our cities would be covered by forest. After 1,000 years, Manhattan would look like an area of countryside. And 10,000 years after we disappeared, there would be very little to show that we had ever existed.

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3 FIND THE INFORMATION

Answer these questions in note form. Then use your notes to retell the article.

1. Name three negative things that could happen if the Earth continues to get warmer.

2. What are fossil fuels, and what happens when we burn them?

3. How much warmer might the Earth's temperatures become by the end of this century and why is this a bad thing?

4. Name six things you can do to use less energy at home.

5. Why is eating meat bad for the environment?

6. What size area of trees is cut down every year and what effect does this have on the environment and nature?

4 OPPOSITES

1. What are the opposites of these words from the article?

- a. full _____
- b. less _____
- c. warmer _____
- d. turn down _____
- e. turn off _____
- f. unplug _____
- g. throw away _____
- h. put on _____

2. Use four of the opposites you have written to complete these sentences

- a. Why don't you _____ your coat; it's very warm in here.
- b. Can you _____ the volume; I can't hear what the actors are saying.
- c. Quick, _____ the TV; it's time for my favourite programme!
- d. Read this letter and then _____ it in a safe place.

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5 WEBQUEST

Our impact on nature is called our 'ecological footprint'. To find out what your footprint is, go to <http://footprint.wwf.org.uk>.

Do the online test. Think about your family and the people in your house and answer the questions. Compare your family's ecological footprint with that of another student's family.

Which two companies or organizations run the website?

What other information does the website offer you?

6 ENVIRONMENTAL POSTERS

Using the information from the article and the information from the webquest, work in groups and make one of these two environmental posters:

- **Earth in danger!**

Include information about what is happening to our climate and how the future could be if we do not change our habits. Add facts, figures, website links, pictures, etc.

- **Save our planet!**

Include information about what we can do to stop our negative impact on the planet. Add facts, figures, website links, pictures, etc.

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KEY

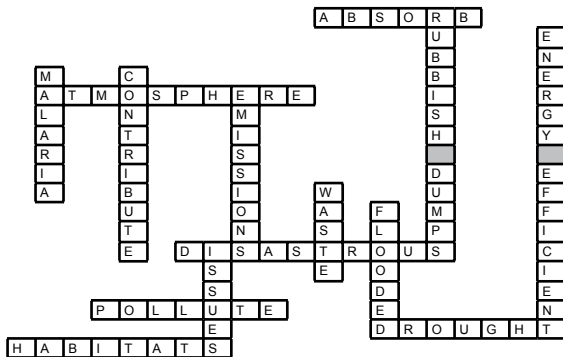
2

Across

1. absorb
12. atmosphere
10. disastrous
12. pollute
13. drought
14. habitats

Down

3. rubbish dumps
3. energy efficient
4. malaria
5. contribute
7. emissions
8. waste
9. flooded
11. issues



3

1. Any three of the following: sea levels could rise and flood millions of homes; many cities could go underwater; heatwaves could kill crops; people could fight because they don't have enough food or clean water; malaria could become common in Europe; many animals and plants could disappear.
2. Fossil fuels: coal, oil and natural gas
What happens when burnt: they release carbon dioxide (CO₂), methane and other gases into the air. These greenhouse gases trap the heat from the sun in our atmosphere, which makes our world warmer.
3. Temperature: six degrees warmer by 2100
Why this increase is a bad thing: there could be more drought and desert in Australia and Africa, and dangerous heatwaves in Europe. The Gulf Stream, which normally keeps Northern Europe warm, may change and make Europe a lot colder.
4. Any six of the following: unplug your television and laptop; unplug your phone charger after your phone is charged; turn down the heating by one degree; take a short shower instead of a bath; put the lids on pots and pans when you're cooking; keep your fridge full; don't boil more water than you need.
5. Meat production uses lots of energy and rainforests are destroyed to make space for cattle.
6. Size: 160,000 square kilometres
Effect: causes climate change because forests absorb a lot of CO₂

4

- a. empty
 - b. more
 - c. colder
 - d. turn up
 - e. turn on
 - f. plug in
 - g. keep
 - h. take off
-
- a. take off
 - b. turn up
 - c. turn on
 - d. keep