WHAT'S THE MOST PLANET FRIENDLY WAY TO FLY IN THE FUTURE?

Flying is particularly harmful as it releases lots of carbon in a very short space of time. Flying (especially at high altitudes such as in long flights) is even more damaging due to the contrails (trails of exhaust fuels and soot) which heat the earth and can last for hours. Flying in the UK contributes around 15% of harmful greenhouse gases like carbon. This is a big amount for something many of us don't do that often. A plane trip for one person to Spain and back from the UK releases half a tonne of carbon into the atmosphere.

OUESTION:

Positive climate action you can take: encourage vour family to go on holiday in the UK and avoid getting on a plane

If you have to fly, think about taking as little baggage as possible, avoiding flying at night (this increases the damage as it boosts the warming effect) and doing as few stops as possible.

Positive climate

and family to look

at using solar power

for heating or other

household items like

Find out who supplies

Are they a sustainable

company who make

their electricity from

don't use carbon?

renewable sources that

your school/home

fridaes.

electricity.

action you can take:

encourage your school

• Why is flying so bad for the planet?



HOW CAN THE SUN AND A BROKEN FREEZER ACTUALLY HELP TO KEEP FOOD FRESH?

Engineers are creating solar (sun) powered fridges to help prevent food going to waste in countries such as Nigeria. This reduces the amount of carbon being released by electric powered fridges and prevents old freezers ending up in landfill. UK households waste an average of 7 million tonnes of food every year.

The food currently wasted in Europe each year could feed 200 million people. This is due to strict rules about sell by and use by dates on food and customers wanting their fruit and vegetables to look perfect. Many people in the UK are also used to having as much food as they want and so are more likely to waste food they haven't got around to eating or leftovers. Food is wasted in Nigeria due to the heat and a lack of fridges and electricity to keep food fresh.

- Find one reason why food is wasted in the UK and one reason why food is wasted in Nigeria.
- How much food is wasted by UK households each year?



HOW FAR CAN YOUR POO TRAVEL?

This 40-seat 'Bio-Bus' runs on biomethane gas, powered only by sewage (poo) and food waste. The bio bug car works in exactly the same way and only needs poo from 70 homes for a year's worth of use. A large non-electric car releases 200g carbon for every kilometre it travels.

- What the best form of transport for the environment?
- Can you estimate how much carbon you produce on a trip to school in your car?

Positive climate action

vou can take: can vou swap some car journeys for walking, cycling or the train?

Can you encourage your family to think about next time you have to

choosing an electric car

FANCY SNACKING ON A SMOKY BBQ CRUNCHY CRICKET?

Eating a more plant-based diet also helps to feed the worlds hungry as nearly 40 per-cent of food grown is fed to animals for meat production. This amount could feed 4 billion people. One hamburger contributes up to 6kg of carbon into the atmosphere. This takes place due to trees being cut down for meat production and the energy and resources used to process this meat. In fact, eating meat does bigger damage to the planet than planes, cars, boats and trains combined.

OUESTION:

• Name 3 reasons why eating less meat and dairy will help the planet.



HOW CAN YOU PLANT A TREE FROM THE COMFORT OF YOUR SOFA?

Why are trees so important? They remove thousands of tons of carbon every day and protect wildlife. A ten year-old tree absorbs 22kg of carbon per year. One google search uses on average 5 grams of carbon emissions. Looking at a webpage with pictures or videos uses 0.2 grams of carbon every second. The internet and email have saved huge amounts on paper and other physical resources. The carbon emissions from charging and running laptops, tablets, streaming videos etc is adding up though. Ecosia have planted over 120 million trees in the last twelve years through people using their free search engine.

QUESTIONS:

- How much carbon does a ten year-old tree absorb in a year?
- Can you estimate how many internet searches (5 grams each) you do in a year?



HAVE YOU HEARD OF THE GREAT GREEN WALL?

The African-led project to build a 'great green wall' is aiming to bring back 100 million hectares of damaged

trees.

Positive climate

action you can

take: encourage

your school/ family

to switch to Ecosia's

free search engine

and help plant more

land, create 10 million jobs and store away 250 million tonnes of carbon. All by 2030. It will help to feed millions of people who have limited access to food.

How big is it exactly? Once its finished, it will be 5000 miles long and 9 miles wide.

HOW DOES A STRAW HOUSE HELP TO STOP CLIMATE CHANGE?

QUESTIONS:

- Find a map and see if you can locate all the countries the great green wall will be built in.
- Can you estimate how many trees they might plant?

carbon and store it!

Most houses in the UK are built with bricks

but to build a two-bedroom brick house

means around 80 tonnes of carbon are

released into the atmosphere. Houses

built with straw release zero carbon into

the atmosphere, in fact they even collect

Most homes need radiators or other forms

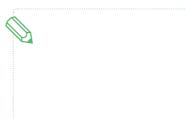
of heating to keep them warm which are

powered by gas - this releases carbon.

Straw houses are so well insulated they

need very little heating and so don't

produce much carbon either



Positive climate action

family about how you

can insulate your house

better so you need less

energy to keep it warm.

house only when you

thermostat down and

on instead?

putting another jumper

Think about heating your

need to. Can you turn the

you can take: talk to your

OUESTION:

Positive climate

action you can

friends, family and

school community

about this amazing

and urgent project.

take: tell your

How much carbon is used to build a straw house?



Positive climate action vou

can take:

encourage

your family

and school

'meat free

Mondays'.

Try out a

vegan recipe.

to introduce

POSITIVE CLIMATE ACTION PUPIL ACTIVITY SHEET

HOW CAN ICE AGE ANIMALS IN THE ARCTIC HELP LOCK AWAY HUGE AMOUNTS OF CARBON?

The arctic has a layer of 'permafrost' -soil and rock containing vast amounts of carbon and methane that stays frozen all year. It is thought that the carbon in the permafrost is 4 times the amount of carbon ever released by humans. The permafrost has been described as a 'sleeping giant' in our climate system. If it wakes up (i.e. starts melting due to global warming) the earth will get much hotter and there could be runaway climate change with devastating consequences. Pleistocene Park hopes to also soon be home to woolly mammoths, cave lions and Siberian tigers who will also help to keep the permafrost intact.

Positive climate action

you can take: tell your friends and family about what the permafrost is and why the animals in Pleistocene Park are important.

OUFSTIONS.

- What is the permafrost?
- Why must we stop it from melting?



CAN SEAWEED FIGHT CLIMATE CHANGE?

Seaweed acts as a carbon sink - storing large amounts of carbon safely away. It's been used in the past in small amounts for things like

Positive climate action you can take:

plant a tree in your garden or school grounds which will help store carbon away just like seaweed.

medicine and toothpaste but is now being grown in much bigger farms as a source of fuel (to power a car for example).

Seaweed can also be used to make plastic free packaging, textiles and other biodegradable goods. It's a great sustainable food source and can be enjoyed in foods like sushi and laverbread.

OUESTION:

 Why could seaweed help fight climate change?



HOW CAN GROWING COCOA HELP PROTECT THE PLANET?

The average amount of chocolate eaten by people in the UK is 8kg a year. It can take an entire year for a cocoa tree to grow enough beans to make five chocolate bars (around 240g of chocolate).

Hundreds of thousands of acres of rainforest have been cut down for cocoa trees damaging the planet and affecting the animals that once lived there. Farmers are now using a new approach to growing cocoa by planting them in the shade of existing trees rather than cutting them down. This is improving the quality of the soil and helping the

Positive climate action you can take: buy Fairtrade

chocolate. This is shade grown and means the people growing the cocoa have been paid and treated fairly.

cocoa trees to live and produce beans for much longer. Not only that, they lock in more carbon!

QUESTIONS:

- How many chocolate bars are made from a year's worth of cocoa beans from one tree?
- Find two reasons why growing cocoa in the shade of other trees is good for the planet

