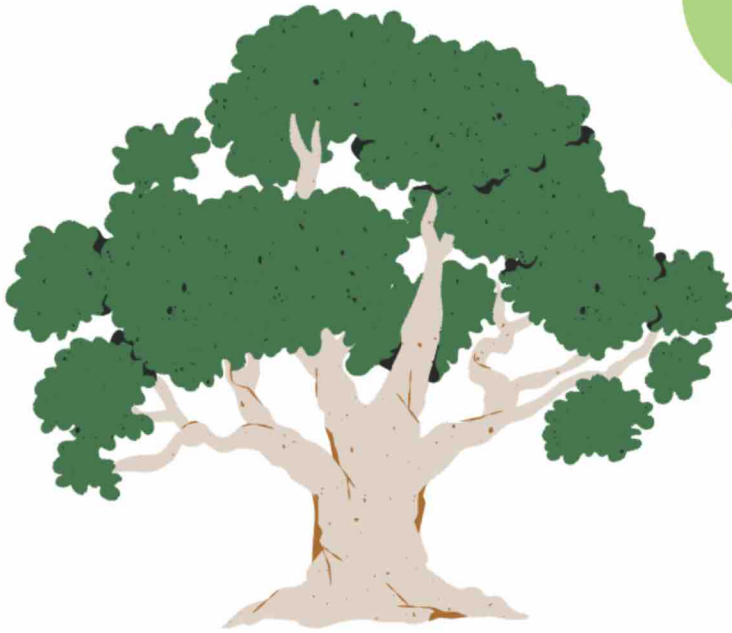


Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Planting trees.



Pros:

The tree canopy also provides shade underneath it.

Trees provide habitats for wildlife.

Trees lock away carbon as they grow, which helps reduce the greenhouse effect.

WHY?

Water evaporates from the trees leaves cooling the air around the tree (transpiration).



Cons:

They take a very long time to grow.

They may need lots of watering when they are young.

Leaves might need clearing in the Autumn.

Older trees might need maintenance to keep them safe.

They require lots of space (an oak tree needs to be planted at least 30 metres from a building)

To think about:

How much do trees cost? Look up young and mature trees.

Where could you plant trees near your school buildings?

Who would care for the trees?

Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Adding a water feature such as a pond.



Pros:

The pond provides a habitat for wildlife.

Children can study nature and do pond dipping.

It provides an attractive place to relax.

To think about:

How much would it cost to build and stock a pond?

Where abouts in your grounds would be a good, safe, place for a pond?

Who could look after the pond during the summer holidays?

WHY?

Evaporation from the pond cools the water and the air around the pond.



Cons:

The pond will need maintenance.

It may be a safety hazard and need a fence around it.

Water will need topping up if it's a very hot summer.



Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Fitting shade sails in the playground.



Pros:

They are waterproof so also provide cover for wet play times.

They can be put away when not in use.

They can be specially designed to allow a breeze to pass through.

They can look nice and colourful in the playground.

If they are placed carefully in front of classroom windows, they can provide a double cooling effect.

WHY?

They create shade to protect pupils from heat and the harmful UV rays that cause sunburn.



Cons:

They can cost a lot of money to install.

They need maintenance which also costs money.

If they are badly designed or fitted they can actually trap heat.

To think about:

Where would you position shade sails in your school and why?

Could you design an attractive shade sail for your school?

Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Painting walls, roofs, car parks and playgrounds white.



Pros:

The rooms inside the painted buildings are cooler and more comfortable in hot weather.

You can paint designs - it doesn't all have to be one colour.

It's quite quick and simple to do.

Paint can be applied to large surfaces which could have a big impact.

To think about:

Can you measure and calculate the area of black tarmac floor covering you have at your school?

Can you estimate the area of roof that might be suitable for painting white?

WHY?

The sun reflects off the white surface which can keep buildings and air cooler. Black tarmac heats up in the sun and this heats the air.



Cons:

It might be quite expensive to buy the special paint and pay a decorator.

You have to keep the paint quite clean for it to work.

It might wear off and need repainting.

Paints sometimes have polluting ingredients in them.

The reflected light can hurt people's eyes.

More environmentally friendly alternatives such as green roofs are available.

Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Changing the timing of the school day.



Pros:

You will be able to be more comfortable and learn better in a cooler classroom.

You might get to go home earlier.

It might help with traffic problems if people aren't all travelling to work and school at the same time.

WHY?

The coolest temperatures are early in the morning and the warmest temperatures are in the afternoon.



Cons:

Some students (especially teenagers) are known to be less effective at learning early in the morning.

You might have to get up earlier!

It could be very difficult for parents if they have to get to work, if they have children at different schools, or if they use before and after school clubs etc.

It might be difficult for some teachers to change their working hours.

To think about:

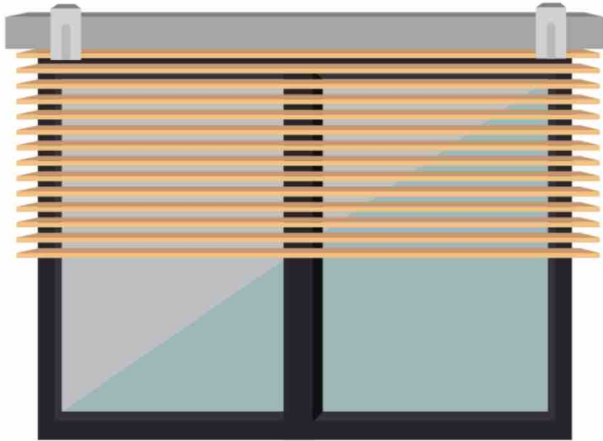
Can the timing of the whole school day be changed when the weather is hot?
Could the timing of certain activities (for example sports day or PE lessons) be changed to first thing in the morning?

When the weather is hot, could you take measurements of the temperatures throughout the day to provide evidence for changing the timetable?

Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Fitting blinds to windows



Pros:

You will be able to be more comfortable and learn better in a cooler classroom.

They are relatively easy and inexpensive to fit.

They are easy to use.

WHY?

They can prevent too much sunlight entering the classroom and heating the room up.



Cons:

Blinds can trap heat inside the classroom if they are the wrong type, colour, or if they are closed at the wrong time of day.

They may interfere with good ventilation inside the classroom.

They can break and need replacing after lots of use.

To think about:

Does your school already have blinds or curtains fitted in any of its classrooms? You could carry out an experiment on a hot day to find the effect of closing the blinds versus leaving them open at different times of the day.

Investigate the area of windows still needing blinds and calculate how much it would cost to buy and fit them.

Discuss the pros and cons of some possible heatwave solutions for your school.

WHAT?

Learning to spot signs of heat stroke.



Pros:

Knowing the early warning signs can stop people from becoming ill from extreme heat.

If pupils learn the signs as well as teachers, then they can help look out for each other at home as well as at school.

To think about:

How much would it cost to train teachers to recognise heat related illnesses? Could you carry out a survey or quiz with your class or teachers to see who knows some or all of the symptoms of heat stress? You could make a poster to help -expel to recognise the signs. (See lesson 2) Could you find out how to help someone suffering from heat stress?

WHY?

Heat exhaustion and heat stroke can both be really dangerous to people's health.

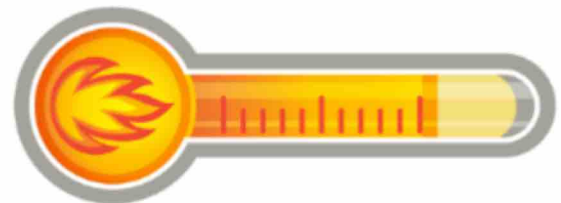


Cons:

Some of the symptoms of heat exhaustion or heat stress could actually be something else.

The symptoms can be hard to recognise.

This doesn't help treat the illness - only recognise it.



Discuss the pros and cons of some possible heatwave solutions for your school.

