



### SESSION 3 – How to tackle a ‘super-wicked problem’.

VIEW THE SLIDES in ‘SLIDE SHOW’ mode – and then all the links will work!!

Please do send us photos of your children enjoying this club!

(Resources required – Paper + Coloured pens/pencils (Optional: String + Paint))

#### Slide 2 – Challenge Review

Did you find a climate change article – what was it about?

Did you receive the Young Climate Warriors weekly challenge by email?

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#### Slide 3 – How to tackle a ‘super-wicked problem’.

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#### Slide 4 – What are the key facts about climate change that we have learnt so far?

Can you tell us some of the key facts you’ve learnt so far?

Greenhouse gases in the Earth’s atmosphere trap the heat from the sun.

Climate change / global warming is occurring because we are building up too many greenhouse gases in our atmosphere.

Carbon dioxide is a powerful greenhouse gas

Carbon dioxide is created when we burn fossil fuels.

Fossil fuels include coal, oil, and gas.

Today we are burning too many fossil fuels – in factories, power stations, cars and lorries, Climate change is making our weather more extreme and unpredictable –

We are beginning to see more rainfall and storms, more droughts and forest fires, changing seasons, shrinking sea ice and rising sea levels.

Scientists have agreed that we have just over 10 years – a decade – to solve this climate crisis.

Scientists say that we need to keep our global warming to less than 1.5 degrees.

We need to act now

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#### Slide 5 – Why do you think Climate Change is sometimes called a Super Wicked Problem?

Climate change affects lots of different people in different places in different and unpredictable ways – and the solutions are many, varied and complex.

What do you think of this way of explaining it – using these images?



(Images thanks to the InterClimate Network)

A TRADITIONAL PROBLEM can be defined and has clear solutions – like a scientific experiment –

Can you give me a suggestion? (How to re-set a broken leg. How to boil an egg. How to get from Cardiff to Glasgow by bus.)

A WICKED PROBLEM – is one that is more complicated – like (social and policy issues) the sorts of decisions that governments needs to make – how do you reduce crime rates, how can you provide the best healthcare or what is the best form of education.

A SUPER WICKED PROBLEM – some people say that Climate Change is a ‘super-wicked’ problem –

Why do you think this is?

There are lots of reasons – but here are a couple.

- VARIED SOLUTIONS – Climate change has so many varied solutions – many of which overlap, and all help towards the same goal – but how will we know the goal has been reached – it will be difficult to know when exactly enough has been done.
- WHOLE WORLD – Never before has the whole world had to tackle something like climate change. As one of the children mentioned in the video – to help solve the climate change problem we need to try and put a value on ‘standing trees’, or ‘living oceans’, or ‘clean air’, or a ‘rainforest ecosystem’
- AFFECTS LOTS OF PEOPLE – LOTS OF “STAKEHOLDERS” – Another reason why it is so complicated is due to the number of ‘stakeholders’ or ‘interested parties’ – let’s have a look at what that means.

(If you wanted to investigate further – 10 Reasons Why Climate Change Is a ‘Super - Wicked’ Problem <https://thewire.in/environment/climate-change-wicked-problem>)

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Slide 6 – Who is affected by climate change? Who can help solve climate change?

Who is affected by climate change?

There are 7.9bn people affected by climate change – the whole world population! (As well as all the animals and plants). Some people will be more affected than others – we’ll look at how climate change impacts different countries differently in the next few weeks.

Lots of different groups are affected by climate change. Can you give some examples?

(here are a few...)

- you and your family
- the Government of Madagascar
- An orange farmer in Spain
- the World Wildlife Fund protecting endangered species
- A car manufacturer in Germany
- An inuit village in the Arctic
- A rice farmer in Bangladesh



- School children in South Africa

Who can help 'solve' climate change?

And by definition – all those 'interested parties' or people are also part of the solution!!

Some people, or groups of people may be able to have more of an impact, but everyone is part of the solution.

Many, many people are all trying to do something about it – and everyone has different ideas about what they think is best solution.

Do you remember in Session 1 – we looked a few of the groups of people ' who can make light work' – International organisations, governments, businesses, communities, scientists, engineers, designers, farmers, financiers, campaigners, teachers, and individuals are all working to help combat climate change.

Who else could you add to this – maybe someone who is sitting in your classroom?

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Slide 7 – Anyone you forgot?

Did you guess who else we could include on the list ...

ME ... WE ... US

You might already be helping as part of a community group?

Maybe you've helped plant trees with scouts or cubs or brownies?

Maybe your school has been part of a 'no idling' campaign – asking drivers to turn off their engines whilst waiting?

Maybe you're part of a community scheme – swapping items of clothing with friends?

Individuals and how they respond, the decisions they make a big difference.

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Slide 8 – What characteristics do we need to become Young Climate Warriors?

(Any positive characteristics will help! – Resilience, courage, patience, creativity)

I'm sure you've all heard of Greta Thunberg

What do you know about her?

Swedish. Born 3 Jan 2003. First learnt about climate change aged 8. First struck outside the Swedish Parliament, before the elections, in September 2018 – and then started the movement 'Fridays for future'.

In September 2019, she sailed to America on a carbon emissions free yacht for a United Nations conference, and that month – millions of protestors around the world marched in 163 countries.



WATCH the video – (click the link on the slide in 'slide show' mode)



Greta Thunberg, at Climate Summit, December 2018. – under 1 minute.

<https://www.youtube.com/watch?v=CAJuX7xed8o>

One of her most famous quotes – ‘You are never too small to make a difference!’

The fact that you’ve chosen to do this Climate Change Club – means you’re probably just a little bit like Greta – and you think that you too can make a difference!

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Slide 9 – Start small ... and build up.

Think back to before school today ... what did you do, what habits have you got into?

Maybe act out some of the habits, for your classmates to guess?!

To make changes to the way we do things we need to think about what we do, much of which is based on habits.

Which of these habits could have an impact on climate change? And could we change those habits?

Examples – What habits have you formed? Which could impact climate change?

Brushing your teeth – before breakfast, after breakfast?

Do you switch the tap off in between brushing? (climate change impact)

Do you hang up the towel when you’ve washed your face? – keep it clean so it needs less washing? (climate change impact)

Do you put on clean clothes from the cupboard – or check yesterday’s ones (obvs not underwear!) – and if they’re clean enough wear them? (climate change impact)

Do you put your pyjamas under your pillow, leave them on a chair, or on the floor?

Do you open your curtains before leaving the room, or immediately when you get out of bed? (climate change impact)

Do you switch the light off when you leave your room? (climate change impact)

Do you finish your bowl of cereal (or swill some down the sink?) (climate change impact)

Do you remember your water bottle, so you don’t need to use a plastic throw-away one? (climate change impact)

Do you switch off the radio / tv before leaving the room? (climate change impact)

Do you walk to school, or jump in the car (climate change impact)

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Slide 10 – Abstract Art

Solutions often need creativity – they need people to ‘think outside the box’, they need to motivate people to take action, to apply themselves to finding solutions.

Art can be a way of communicating. Art can allow time for contemplation and consideration.



Create a work of art that shows some of the many strands that make up the 'climate change' problem. (think back to the 'super-wicked' ball of string)

You'll need

A selection of coloured felt pens (or coloured string, paint)

The more colours and lines you use the better! Maybe add a 'key' to show that each colour represents?

Slide 11 - Challenge for the week!

See if YOU can change one of your 'before school' habits to help combat climate change.

Take-away points from this session:

- The solutions to climate change are many, varied, and complex – it could be described as a 'super-wicked problem'.
- EVERYONE is affected by climate change, some more than others. EVERYONE can help solve the problem.
- 'You are never too small to make a difference'
- Changing habits can help reduce our impact on climate change.