

Katie Williams
2205543

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Why is Climate Change a threat to humankind?



(Harwood, M, no date)

Save our Earth today to survive tomorrow!

In recent years we've seen a worldwide increase in environmental concern. "A collaborative drive for action has resulted from an inclined knowledge of issues such as climate change catastrophe, ozone layer harm, deforestation, and biodiversity" (IPCC, no date).

Are YOU playing YOUR vital role in preventing climate change?

Long-term shifts in temperature and weather trends over a period are referred to as "climate change" (United Nations, no date). These shifts may be natural, such as

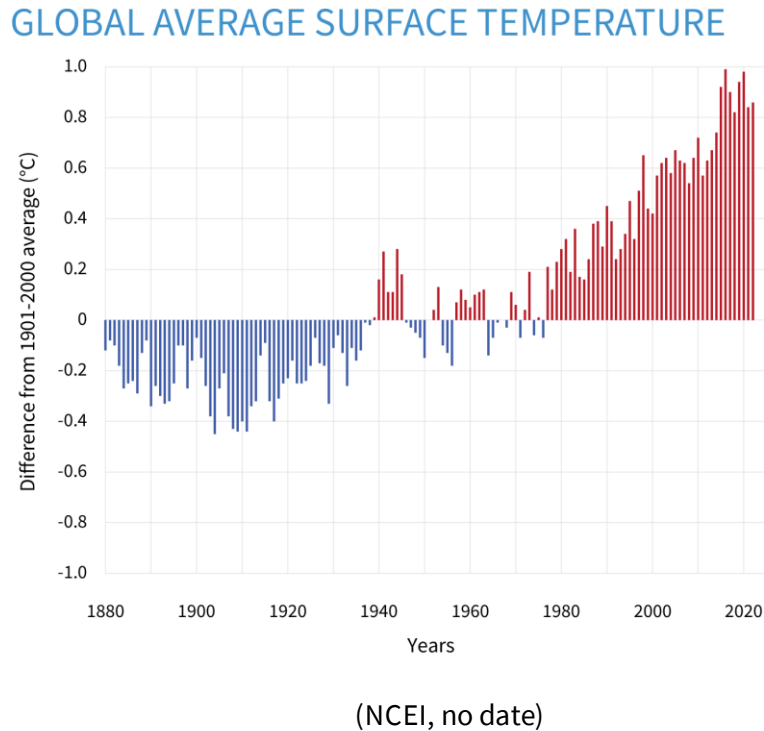
differences in solar activity. Since the 18th Century, anthropogenic changes such as industrilisation, pollution, urbanisation and deforestation all play a major part in causing Earth's temperature to rise. Human activities are primarily a mitigating factor to climate change mainly due to the use of fossil fuels like coal, gas and oil (United Nations, no date). These fossil fuels are non-renewable and currently supply approximately 80% of our world's energy (ClientEarth Communication, 2022). Climate change helps to mitigate the socioeconomic factors that influence people's ability to live healthy lives (WHO, 2021).

According to the Intergovernmental Panel on Climate Change (IPCC, 2021) "pollution from fossil fuels is the primary source of climate change". In 2018, fossil fuels accounted for 89% of worldwide CO₂ pollution alone (IPCC, 2021).

What's the evidence?

The Intergovernmental Panel on Climate Change (IPCC) states, "Since systematic scientific assessments began in the 1970s, the influence of human activity on the warming of the climate system has evolved from theory to established fact" (IPCC, 2021).

The climate graph (NCEI, no date) below displays that the average surface temperature has risen significantly over the past 140 years. The traffic you see daily on our roads is powered by fossil fuels. When these burn it produces pollutants which can in turn produce carbon dioxide (a greenhouse gas) which can contribute to the rising of our Earth's temperatures.



The climate graph (NCEI, no date) the average global temperature has increased by 0.08 Celsius (0.14 Fahrenheit) Lyndsey & Dahlman (2023) since 1980. This slight annual increase in temperature may seem minute but it is contributing to huge effects on climate change.

The additional heat in the latter years is causing extreme variations in the weather. The last decade has been the warmest decade recorded to date. This will ultimately reduce habitats for plants and animals, with more animals becoming extinct. As Earth's temperatures rise, ice is being forced to melt rapidly which can lead to increasing sea levels, floods, and coastal erosion. (Igini, 2022).

Everyone is entitled to reside in a pollution-free, healthy atmosphere. (Climate & Clean Air Coalition, no date).

As Sir David Attenborough once quoted “What happens next is up to us all, I truly believe that together we can bring about the transformative change that is needed”
(Buys, 2022).

Are you prepared to take the adaptations urgently required to save our planet? and prevent climate change?

Exploring the skills needed to successfully promote dealing with Climate Change in education



(CBEEN, no date).

Education is a critical element in hastening the transition to a more viable, sustainable future. Improving and developing children's views and opinions on climate change education can help the progression to a more sustainable future.

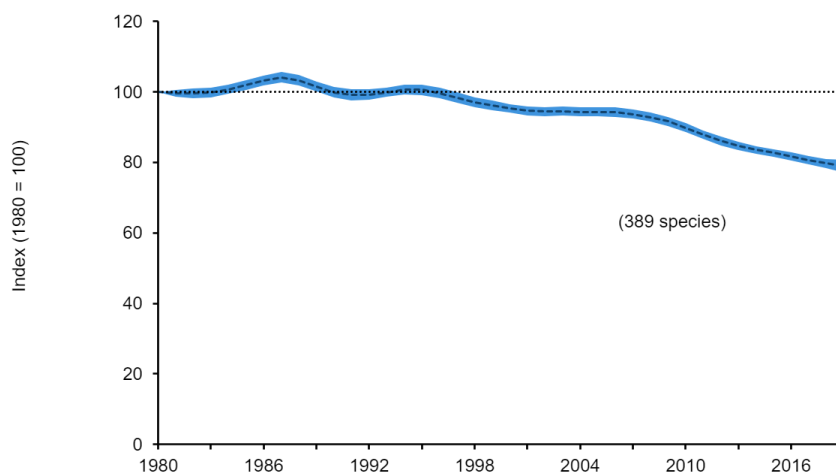
As educators, we are positive role models to children within our care, through the process of modelling, children imitate behaviours observed by observational learning (Bandura 1986, 1977). By displaying and promoting resilience to children we can prepare them for contemporary problems in our world such as climate change. Giving effective praise to children when children turn the lights off by saying 'thank you for helping to save our planet' can influence children to repeat the process. Eating healthy in front of children can boost healthy eating habits and nutrition in children (Meskell, L. 2014).

Increasing intrinsic motivation and cognitive skills in their educational setting can facilitate children to engage with learning regarding biodiversity (Bolkan & Goodboy, 2015).

Climate change education can help motivate children to modify their attitudes and habits. It has the potential to inspire children to act. Get involved at your school today! (United Nations, no date).

Continuing to build and strengthen children's critical thinking abilities and awareness of climate change and the environment in which they live we can reduce global warming and improve overall academic performance. Schools build opportunities for children to put their knowledge and skills into action through interventions such as growing vegetables, planting trees, and increasing biodiversity setting (Department for Education, 2021). Collaborate with Welsh Government and potentially reverse the decrease in pollinators in Wales.

Change in the distribution of UK pollinators, 1980 to 2019.



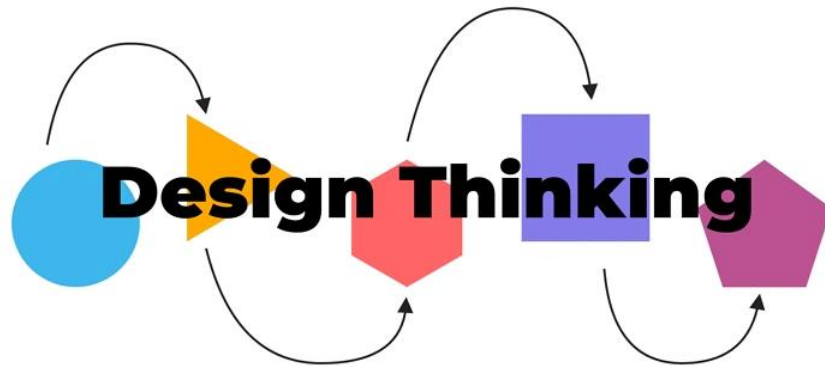
(GOV.UK, 2023)

Pollinators, such as bees have decreased over the past ten years due to habitat loss caused by adverse weather conditions and climate change. Undoubtedly, this will have a huge effect on crops and produce as pollination from bees is paramount in many food and plant life cycles. As educators, we will ensure that safe habitats like wildflowers and fruit trees are planted to rebuild their species (GOV.WALES, 2013). Our fresh local produce could be in danger and potentially result in hunger if we don't preserve the bees.



Can you plant some plant
pollinators at your school
today?

Exploring the merits and shortcomings of implementing Design Thinking to deal with contemporary challenges within education.



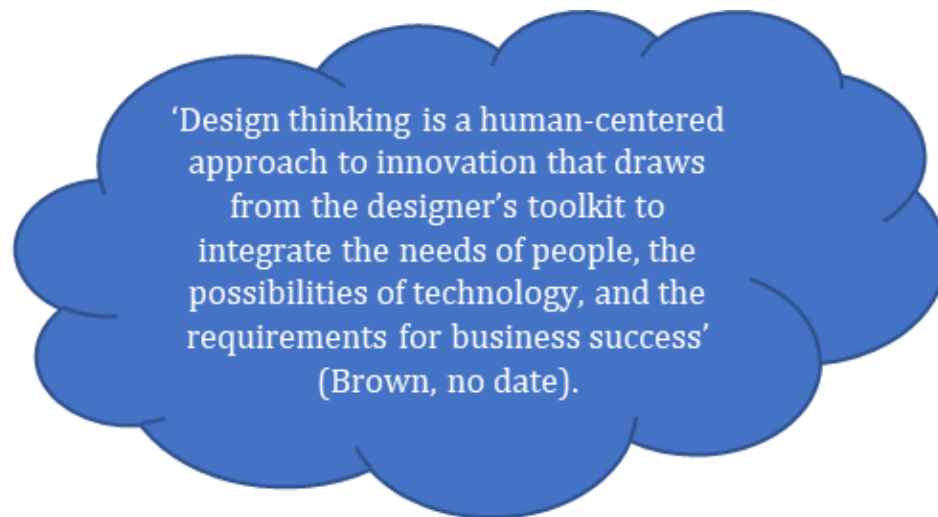
(Angelic, L, 2023)

Can Design Thinking help prepare children for contemporary challenges of the future?

As we advance into the 21st century, we are faced with challenges daily, some more contemporary than others. Design thinking can skills such as empathy, collaboration, facilitation and continuous creativity of prototyping and testing into children's education will significantly improve and motivate school engagement and build a foundation for children to innovate in their later life. (Dam, 2023). Design thinking skills are paramount for creativity in the 21st century according to (Robinson K, 2011).

'Design thinking develops creativity, sensitivity, refines and strengthens social ties' (Mootee, 2013, p. 64).

You must visualise the problem from the client's perspective. With design thinking attributes like empathy, understanding and research, interviews and brainstorming can be utilised to gain a better understanding of the client's issues from a human standpoint (Dam, 2023).

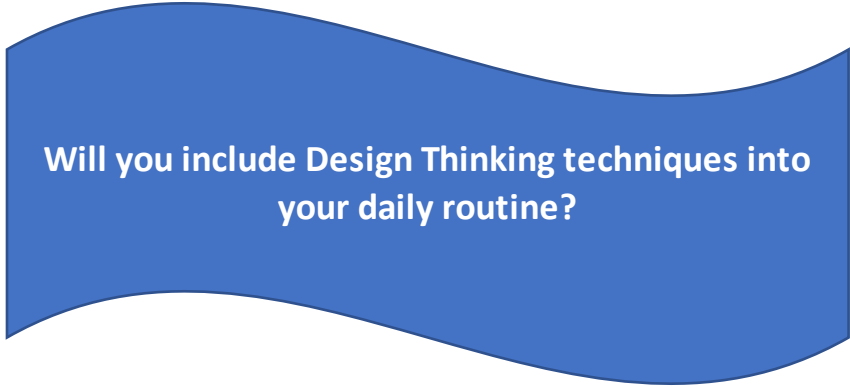


By working collaboratively, researching reasoning and investigating with their peers can develop and create innovative solutions within a learning environment through design thinking when integrated within education (Barton, 2015). Once these fundamental skills are embedded children can tackle contemporary challenges with a creative, human-centric mind, to facilitate new innovations for their intended audience (Plattner et al., 2015).

What are the flaws?

Teachers often lack the correct training, which can consequently lead to adversities whilst delivering the design thinking approach (Anastasiadis *et al.*, 2020) and could potentially result in less learners inspired to infuse design thinking in their learning (Panke, S. 2019). Without the correct support and encouragement from colleagues while applying design thinking within the classroom will undoubtedly affect the child's overall academic performance (Baniya, S. et al. 2019). Ensuring the correct resources were available to deliver an effective lesson was shown to be a huge time constraint for teachers (Retna, K.S. 2016).

Taking these restrictions of design thinking into account and building on them can inevitably be advantageous for innovative solutions in the 21st century (Alibaba, 2023).



Will you include Design Thinking techniques into your daily routine?

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