

Climate Dice Information Tables for Parents/Carers

These tables are designed to help you talk to children about climate change in a safe and supportive way. They consist of columns showing:

- The name of each image
- Some basic information in relation to climate change
- Some good news in relation to each image - but you can find your own if you prefer (see eg [Positive News](#) and [The Good News Network](#))
- Some examples of issues that could provoke high levels of anxiety and thus should be handled with care if discussed at all (with older children).

Theme 1: Endangered Species














Image	Title	Information	Small wins	Handle with care
	Bee	<p>We need them for our food to grow. Bees are gentle, and we need to look after them.</p> <p>They're part of a flowering plant's life cycle Reasons why bee numbers are falling: pollution, climate, habitat loss, and chemicals.</p> <p>Actions we take to help bee numbers - eg plant flowers.</p>	<p>In Kenya, over 500 bee hives have been installed to encourage girls and young women to take up bee- keeping to earn a living.</p> <p>Also see Flowers</p>	<p>The numbers of bees and other pollinators are declining at an alarming rate. Without pollinators like bees, humans will struggle to grow enough food. We are the main reason bees are dying.</p>
	Cheetah	<p>Cheetahs need a very large space to live in and hunt, but people are taking their space.</p> <p>Cheetahs are a crucial part of the ecosystem.</p> <p>Cheetah numbers have decreased by 90% since 1900 and scientists are worried they will disappear altogether</p>	<p>India has been trying to reintroduce cheetahs into the country for decades — and they just had their first successful birth of four cubs in 70 years.</p>	<p>Cheetahs are 'keystone' predators. If they no longer existed, there would be a domino effect where too many herbivores lead to a negative impact on the health of their ecosystem.</p>
	Penguin	<p>Some penguins live on the ice which is melting, so finding food is hard. People are fishing more so there is less fish for the penguins.</p> <p>Emperor penguins are at serious risk of extinction.</p>	<p>Scientists have discovered nearly 20 per cent more emperor penguin colonies in Antarctica than previously thought.</p>	<p>>80% of the emperor penguin population is threatened. This is partly due to loss of Antarctic sea ice which is used as a nesting platform and foraging habitat.</p>
	Polar Bear	<p>Climate change is melting and thinning the ice, so polar bears have less hunting space.</p> <p>Without so much space to hunt, females are hungrier and don't reproduce as much.</p>	<p>Polar bears in some parts of Canada are getting fatter and more numerous according to recent survey results from two of the world's 19 polar bear subpopulations.</p>	<p>2/3rds of the polar bears could be gone by 2050. Scavengers like the Arctic fox and Arctic birds like the snowy owl depend on big kills from polar bears, and so are also under threat.</p>

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	Shark	<p>There are over 500 different kinds of shark.</p> <p>Sharks are moving to new areas because of changing water temperatures.</p> <p>Sharks are part of a delicate ecosystem needed to maintain other species.</p> <p>143/500 species of shark are at risk.</p>	<p>Zebra sharks were at risk of going extinct, but now 15 countries have joined together to breed and release 500 sharks to their native waters.</p>	<p>Some hunt sharks for their fins. Cutting off a shark's fins means it can't swim and will die.</p> <p>Sharks help to balance the marine ecosystem.</p>
	Orangutan	<p>People have cleared the forests where they live to plant palm oil trees. They are also hunted and their babies stolen to be pets.</p>	<p>The Orangutan Foundation has been successfully guarding the forests of a national park and wildlife reserve to prevent illegal activities.</p>	<p>The orangutan receives 60% of its diet from almost 200 different kinds of fruit trees, so are great spreaders of seeds.</p> <p>Fewer orangutans means their forests will struggle to provide habitat and food for other fruit eating species.</p>

Theme 2: Getting Around

Image	Title	Information	Small wins	Handle with care
	Walking	Benefits of walking, health/planet. Least damaging of any way of getting around. Makes you happier and healthier. Remind of road safety.	£200 million will be spent across England to make it safer to walk and cycle, with better crossings and junctions. https://www.gov.uk/government/news	Walking may be not a viable option for those with accessibility barriers or needs.
	Bicycle	Benefits, health/planet. Sustainability. Small carbon footprint. Pros and cons of riding a bike (not always a bike lane)	There are now more people cycling than driving in the City of London, with cyclists making up 40% of traffic at peak times.	Cycling safely is problematic where appropriate cycling infrastructure is not in place. Many car drivers are impatient with cyclists.
	Public transport	Sustainable. Pros and cons of travelling by bus and train. Trains use less energy, have fewer emissions and are quieter, buses sometimes pollute but reduce number of journeys.	Luxembourg has made all public transport free for the past three years which encourages people not to use their cars.	Not all places, especially rural areas, have adequate access to public transport. The cost of public transport could be too high for some.
	Sailing boat	Sailing boats were first invented in Egypt more than 6000 years ago. They use wind power (although some may have an engine too). They do not pollute and have zero carbon footprint.	Engineers are working hard to develop cars with a built-in wind turbine to power them.	
	Car	Diesel cars are very polluting but electric cars much less so. Many cars use fossil fuel. Cars produce air pollution, which is toxic. The pros and cons of electric cars	There's been a massive increase in the number of electric vehicles on sale in the UK with more than 40% of models now available as plug-ins.	The school run often leads to dangerous parking attitudes and idling of engines. There is a clear link between air pollution and disease and death.
	Aeroplane	Aeroplane pollution. Planes use fossil fuel. Planes are the biggest polluters. Sustainable Tourism	Norway is developing electric powered planes and has promised all its short flights will be on electric aircraft by 2040	Per-person emissions from the odd flight every few years pales in comparison with those who take regular business flights or own private jets.

Theme 3: Issues

Image	Title	Information	Small wins	Handle with care
	Plastic	<p>Discuss the problems with plastic eg long lasting, littering the earth and sea. What to do with plastic we do use. Other materials to use instead.</p> <p>The consequences of plastic pollution including micro plastic as appropriate.</p>	The Ocean Cleanup has just reached a milestone of 200,000 kilograms, or 220 tons of plastic removed from the ocean in the area known as the Great Pacific Garbage Patch.	A 2022 study identified microplastic particles in 11 of 13 samples of human lung tissue. Microplastics have also been found in maternal and fetal placental tissues, breast milk and blood.
	Air pollution	<p>Air pollution can make us ill. Main causes are emissions from vehicles, heating our homes, making electricity and chemical production.</p>	In September 2021, China pledged not to build any new coal-fired power projects overseas. Earlier this year, similar commitments came from top coal financiers South Korea and Japan.	Air pollution in both cities and rural areas is causing fine particulate matter which result in strokes, heart diseases, lung cancer, acute and chronic respiratory diseases.
	Global warming or Climate Change	<p>Meaning: the Earth is getting hotter. That means the weather is changing and some countries are having less rain while others are having too much. Greenhouse gases trap the heat that would normally escape and this causes the planet to heat.</p>		'The language used by scientists is increasingly powerful. Words like 'unequivocal', 'unprecedented' and 'threat' now regularly appear in research papers. Language once perhaps only associated with media reports.
	Fossil fuels	<p>Types of fossil fuels and what they're used for: Oil, coal, natural gas. Meaning of non-renewable.</p> <p>Contribute to global warming,</p>	Humans are set to use less oil, coal and gas to produce electricity this year than last year – the first ever annual drop in the use of fossil fuels to generate electricity not caused by a pandemic or a global recession.	Many of our economic systems are built on the back of fossil fuel use, making it difficult to escape using them directly (e.g. fuel for cars) or indirectly (e.g plastics) without systemic change. Some families, especially in rural areas, rely on oil to heat their homes
	Ice melting	<p>Most ice is around the North and South poles. Climate change is melting the ice which will affect the animals that live there. Reduced glaciers, sea level rises (as appropriate).</p>		Sea-level rise increases the risk of coastal flooding during storms. Some smaller settlements on the coast may need to be abandoned.



Farming meat

More greenhouse gases are produced by the rearing of cows and pigs than all the cars, planes and boats combined. When forests are cleared to make way for animals for meat, billions of tonnes of carbon dioxide are released into the atmosphere.

Part of Brazil's Amazon rainforest is being farmed sustainably without cattle. Farmers are replanting the forest with local crops.

Giving up meat may not be an option for some families.

Beef is by far the most carbon-intensive meat.

Theme 4: Nature










Image	Title	Information	Small wins	Handle with care
	Flowers	<p>Flowers are beautiful. They provide food for lots of wildlife. Why we should plant more flowers.</p> <p>Flowers are being affected by the changing climate.</p>	Two farmers in Oxfordshire have left space around their fields for wildflowers to grow and have left some fields as grassland to encourage wildflowers such as cowslips and bee orchids to return.	Imported flowers may involve anything between 3x and 67x the emissions as British-grown flowers. This is when you account for transportation, heating and electricity for growing.
	Trees	<p>Why we need to plant trees - produce oxygen, important habitat. Benefits of tree planting for other wildlife.</p>	The Wildlife Trust recently started a 100 year project to protect and enlarge Britain's temperate rainforests, using a £38 million donation.	Planting trees alone is not a solution to climate change, and we must take care to plant species that are suitable and native to the local environment.
	Mountain	<p>They are permanent and don't move. Great for exploring. Great for nature. Mountains store water, stopping rising water levels</p>		Climate change is impacting mountain areas by increasing risk of hazards such as avalanches, river floods, landslides, debris flows and lake outburst floods.
	Water	<p>Can symbolise the sea, rivers, lakes and water of any kind. Water is essential for life. Discuss too much water (flood) and too little (drought) and their consequences. Importance of saving water but also water pollution.</p>	After 10 years of talking, there is now an agreement to make 30% of the world's oceans into protected areas by 2030.	Flooding is one of the biggest threats in the UK. Flooding events are becoming more extreme in the UK. Many families live in flood risk zones.
	People in harmony with Nature	<p>In the past, before people built towns and cities, people lived with Nature and didn't damage it. Some people still live like that. Indigenous people are those who first lived in a country or area. Discuss what it means to live with Nature.</p>	In Canada, 6.5 million acres of land are now protected for the Łutsël K'é' Dene First Nation who have lived in this region for countless generations.	Be aware of conservation efforts that do not work with the land or Indigenous people. An example is 'fortress conservation'.

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	Vegetables	<p>Meaning of vegetarian Meaning of vegan. Why some people choose to be vegetarian. We should all eat plenty of vegetables even if we still eat some meat. Introduce idea of organic farming (grown without use of chemicals, pesticides etc)</p>	<p>44% of UK households that have a garden, allotment or balcony are now growing their own fruit and vegetables.</p>	<p>Be sensitive around promoting esp vegan diets to young children. Be aware of cultural and other issues.</p>

Theme 5: Making a Difference

Image	Title	Information	Small wins	Handle with care
	Recycling	<p>Explore refuse reduce, reuse, recycle. Discuss and practise the process of recycling. Some of what we separate is not recycled.</p> <p>Need for alternative packaging</p>	A charity called Community Furniture Aid won an award for collecting unwanted furniture and household items that would have been thrown away, and using them to furnish homes for people who have nothing.	Recycling can be challenging where access to facilities is a barrier, e.g. living in flats.
	Campaigning	<p>Meaning - working with other people to change something important. Examples: demonstrating, writing letters, TV programs, petitions, contacting politicians</p> <p>Talk about notable campaigners: Suffragettes, Nelson Mandela, Greta Thunberg, Martin Luther King, Rosa Parks, Malala Yousafzai.</p>	Unicef has published toolkits, developed by young activists, young designers and UNICEF experts, to provide them with the knowledge, tools, and resources to participate in global youth climate action and advocate for change.	There is an increasingly hostile political environment against campaigning, protests and activism. However, doing these things in a responsible manner is a democratic right.
	Conserve energy	<p>Main sources of energy in most uk homes - gas, electricity, oil, solid fuel.


</p> <p>Reasons to save energy. Many people all making small changes can make a big difference.</p> <p>Light pollution and its impact on wildlife.</p>	The City of London, where there are many skyscrapers, is considering asking for all unnecessary lights in buildings to be turned off at night	It may be necessary for important items or lights to be left on for accessibility reasons. Houses which are poorly insulated may require more energy to heat.
	Conserve/protect water	<p>Protecting water (quality and quantity). Different ways to reduce water usage (see Small Wins)</p> <p>Exploring times we use water. Is it always necessary?</p> <p>Why bottled water is bad for the environment (uses fossil fuels in production + discarded bottles).</p> <p>Also discuss pollution of rivers, the sea etc.</p>	<p>In 2022, an Early Years setting won an Eco Schools award for saving water.</p> <p>Scientists are working on ways to obtain water from air, using solar panels for the energy they need.</p>	Some power showers on their full setting can use as much water in a few minutes than half a tub of bath water.

Image	Title	Information	Small wins	Handle with care
	Renewable energy	<p>Introduce meaning of renewable energy. Types of renewable energy. The benefits of solar energy - lots of new ideas about where they could be placed.</p> <p>Discuss where they might see solar panels or wind turbines.</p>	<p>Wind energy is now so cheap in the United Kingdom that energy bills could start to go down. In Switzerland, there are plans to install solar panels between train tracks to increase energy production.</p>	<p>Although the price is falling fast, renewable energy for homes is still unaffordable for many families. They definitely save on household bills in the long-run, but the up-front costs are still high.</p>
	Protect soil	<p>Soil is a living ecosystem and needs to be protected. Soil is needed for the food we eat, but also for other creatures. There are fewer birds because there are fewer worms in soil that has been starved. There are more organisms in one teaspoon of soil than there are people on Earth!</p>	<p>Community Supported Agriculture projects involve farmers working directly with the people who will eat the food they produce. This means there is a connection between the person growing the food and the people eating it.</p>	<p>Contaminated soils (e.g. old industrial land, sewage overflow sites etc) cause water pollution and are harmful to wildlife.</p>

Theme 6: Concepts







Image	Title	Information: all children	Handle with care
	Equality	<p>What it means to be equal. Reasons we need equality. Explain the idea of Fair Trade. Explore Fair Trade items and where in the world they come from. Explore equality in more detail including advantaged/ disadvantaged areas of the world and different impact of climate change.</p>	<p>People living on floodplains, coastlines, or in areas prone to severe storms are more vulnerable to extreme weather. Those living in poverty may be less able to prepare for or respond to extreme events. Those whose voices are ignored or marginalised tend to have contributed the least to climate change. We call this 'climate injustice'.</p>
	Carbon footprint	<p>Meaning of greenhouse gases (ie what humans are putting into the air and causing the planet to heat up). Meaning of carbon footprint (how we measure the amount of greenhouse gases each person, or city or country adds). We all have a carbon footprint but it's hard to measure. Comparing activities that leave a high and low carbon footprint.</p>	<p>A large proportion of an individual's carbon footprint is a result of living in a system built on fossil fuels.</p>
	Peace	<p>Discuss meanings of peace - no wars, but also being calm and without any disturbance. Extend discussion to what is needed for peace - eg justice, fairness.</p>	<p>War is one of the biggest threats to making progress against climate change</p>
	Time passing	<p>People all over the world are working hard and as quickly as possible to find ways to stop the world getting any hotter. Companies and governments not acting quickly enough. Talk about young people such as Greta Thunberg who are pushing for change.</p>	<p>Scientists have calculated that we have more-or-less ran out of time to keep climate change to the safest possible level. However, every effort counts, and we still have time to create a world with a stable climate we can adapt to.</p>
	Love	<p>Symbol of love known across many countries</p>	<p>We feel anxious about climate change because we care and when we care we can act.</p>

Image	Title	Information: all children	Handle with care
	House/home/shelter	<p>Image can be used for any kind of building but also symbolic of somewhere to live.</p> <p>Talk about different kinds of homes, including the fact that Earth is home to all of us and we should care for our home.</p> <p>Shelter is one of the fundamental human needs.</p>	<p>Increasingly, refugees are fleeing areas due to impacts of climate change, or their situation has been made worse by climate change. People don't choose to be refugees or homeless.</p>

Theme 7: Actions







Image	Title	Information	Handle with care
	Reading	<p>Reading brings us joy. Reading helps us to learn. We can learn about the planet from books. Not everyone is as lucky as we are, with schools to learn and books to read.</p>	<p>Be aware of bias and the danger of a single story. If using non-fiction, seek out texts which make reference to scientific studies.</p>
	Meditation	<p>Meditation and mindfulness can bring us peace and make us calm. It's a way to keep healthy. People who meditate are often more aware of the environment around them. Activities such as mindfulness, meditation, being outside in nature, music etc. are essential for self-regulation and support the nervous systems.</p>	
	Music	<p>Music can make us feel happier and calmer. Types of music.</p>	
	Happiness/being positive	<p>Staying positive is good for our health. At an appropriate level, talk about a positive mindset. Ways to stay positive. Links between nature and happiness. Children who spend more time outside are happier, healthier and learn better. They develop a love for nature, a feeling of belonging on the earth and greater resilience</p>	<p>The latest IPCC report includes, for the first time, studies into the impact of climate change on mental health. People all over the world are worried.</p>
	Writing	<p>People write in different ways with different alphabets. Talk about the different ways to write - on paper, on phones, on computers Writing as communication. Talk about how technology has changed writing. Will writing with a pen ever become redundant?</p>	

Image	Title	Information	Handle with care
	Thinking/ideas/problem solving	<p>Ever since the first people lived, they have been using their brains to solve problems and find better ways to live, eg making tools.</p> <p>Talk about some of the important good ideas - the wheel, growing crops, printing machines, computers etc</p> <p>Some good ideas are not so good for the environment - eg cars, fossil fuels. Now we need people to use their brains to think of solutions to the problem of climate change. Introduce idea of conscious v subconscious mind (5% v 95%) Importance of subconscious in terms of self-belief and self-esteem.</p>	