

Nature & Climate Trivia Cards



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Question: *True or False*, some species actually benefit from climate change, and their populations have grown as a result

Answer: True! While it's much more common that animals are threatened by climate change, it's true that some are thriving in warmer temperatures. But this isn't exactly good news, as many of those creatures aren't the sort of species we'd like to encounter in the wild. Several tick species, for example, have been thriving as temperatures increase, allowing them to live further north and remain active longer each year. If you notice that you or your pets are coming back from walks with ticks more often than before, you likely have climate change to blame.

Question: *True or False*, climate change and global warming doesn't necessarily mean that every country will grow warmer over time.

Answer: True! It's not guaranteed, but there are concerns that if global warming interrupts ocean currents, some countries including the UK, will actually face colder temperatures and more brutal winters

Question: Many people are pointing to nature-based solutions to reduce climate change, and there's a lot that gardeners and horticulturalists can do to make a difference. Of the below, what is NOT a helpful action?

- a. Prioritizing native plants that will thrive without watering or pesticides.
- b. Growing your own vegetables to reduce the transportation costs in what you eat
- c. Increasing your fertilizer use to produce hardier plants
- d. Ensuring your garden contains plenty of pollinators to support bee populations

Answer: C Most fertilizers, other than naturally-made mulches, are harmful to the environment and often emit fossil fuel pollution in their creation. It's best to reduce or eliminate your fertilizer use when possible.

Question: Which of the following crops/products will be affected negatively by climate change?

- a. Rice
- b. Olive Oil
- c. Wine
- d. Chocolate

Answer: All of the above – The above listed products have all already been, and will likely continue to be affected by the impacts of climate change, including crop losses due to warmer temperatures or heavy rainfall. This makes them more expensive to buy.

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Question: A Canadian household of four has the same average fossil-fuel emissions as a community of roughly how many people in rural Somalia?

- a. 16
- b. 40
- c. 200
- d. 1,600

Answer: 1,600 – It may be hard to believe, but factoring in that Canadians are among the greatest polluters per-capita, and the extreme inequality when compared to many poorer countries, a small group of Canadians pollute as much as hundreds, and sometimes thousands of people living in other countries.

Question: *True or False,* Windmills create more pollution in their construction than they will reduce in their lifetimes

Answer: False! – The idea that windmills pollute more than they reduce is a longstanding bit of misinformation, based on a study addressing the risk of building wind-turbines in low-wind areas. The truth is that a windmill in a good location will typically pay back its energy cost in two to three years or less – roughly 1/10th of its lifespan!

Question: As many as a quarter of plant and animal species may be facing extinction by 2050 if climate change isn't slowed. Of the below-named species, which do you think will be the most at risk?

- a. Polar Bears
- b. North Atlantic Right Whales
- c. King Penguins
- d. Coral Reefs
- e. The Arctic Fox

Answer: b. North Atlantic Right Whales – Although each listed creature will be at risk, the most endangered is the North Atlantic Right Whale. The remaining whales number less than 400, and although their near-extinction is mostly due to becoming tangled in fishing nets and striking vessels, warming water is forcing them to seek food in areas with an even greater risk of collisions.

Question: *True or False,* Sending Canadian Natural Gas to other countries is better for the environment than those countries using a more polluting energy source like coal

Answer: False! – Natural Gas uses methane, a polluting fossil fuel. Even though it pollutes less than oil or coal, the added emissions of transporting Canadian gas around the world actually makes using Canadian gas as a heating or energy source worse for the planet than those countries using their own coal.

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Question: How much taxpayer money has the Canadian Government given to subsidize the Trans Mountain Pipeline?

- a. \$250 million
- b. \$5 billion
- c. \$10 billion
- d. \$50 billion
- e. \$10 trillion

Answer: d. \$50 billion Our government has given somewhere between \$49 and \$53 billion in taxpayer money to support the Trans Mountain Pipeline, most recently giving them an additional \$20 billion in late 2024. Imagine how much green infrastructure could be built with that \$50B!

Question: Canada contains what percentage of the world's freshwater?

- a. 20%
- b. 5%
- c. 60%
- d. 2%

Answer: A!

Question: One thing that hampers people's understanding of just how dire climate change is, is that dangerous levels of global average warming (1.5, 2, or 3 degrees) sounds quite small. However, a small amount of warming is more harmful than you'd expect. How much of a global average temperature increase is considered potentially apocalyptic?

- a. 2°C
- b. 7°C
- c. 4°C
- d. 14°C

Answer: C! While a 7°C or 14°C increase would certainly be apocalyptic, even at a 4°C increase life as we know it would change, and much of the earth may become uninhabitable. Fortunately, due to the emissions-reduction progress we've already made, a 4°C future is unlikely, although 20 years ago we were very much heading in that direction.

Question: What percentage of emissions do the 10 most polluting countries release?

- a. 20%
- b. 44%
- c. 68%
- d. 92%

Answer: C! 68% – Just 10 high-emitting countries produce well over half of the world's pollution. Ordered from highest-polluting, those are China, the United States, India, the EU, Russia, Japan, Brazil, Iran, Indonesia, and Mexico.

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Question: Which of the following is not a greenhouse gas?

- a. water vapor (H₂O)
- b. carbon dioxide (CO₂)
- c. Helium (HE)
- d. Methane (CH₄)

Answer: C! Helium - is not able to absorb and emit infrared radiation, which is what allows other gasses to contribute to the greenhouse effect. You might be surprised to see water vapor on this list – water vapor is in fact a greenhouse gas, but this points to the fact that the greenhouse effect isn't inherently harmful to the Earth or human life. It's typically a natural process, but one we've driven out of control by adding too many other harmful gasses to the atmosphere, including carbon dioxide and methane.

Question: At what temperature does a modern heat pump stop working?

- a. 2°C
- b. -60°C
- c. -10°C
- d. -25°C

Answer: D! -25 - Like many other green technologies, heat pumps are getting more effective, and quickly. While a heat pump 20 years ago quickly lost its efficiency in below-freezing temperatures, newer heat pumps can effectively heat a home when it's as cold as -25°C outside. Any colder, and a secondary heat source (which is often now built into the heat pump system) is needed.

Question: What country contains the most solar panels?

- a. The U.S.
- b. The UK
- c. China
- d. Sweden

Answer: C. China! - Although it remains the world's top fossil fuel emitter, China dominates the solar energy sector, producing 77.8% of the world's solar panels and possessing 393GW of solar capacity in 2022. China built more solar panels in 2023 than the entire world did in 2022.

Question: *True or False*, wind turbines pose a significant threat to bird populations

Answer: False! – Although wind turbines do kill birds – at an average of about 4-10 birds per turbine per year, their impact on bird populations pales in comparison to the real threats. Wind turbines kill less than one bird for every 2,000 killed by cats, every 500 killed by buildings, every 150 killed by cars, and every 50 killed by pesticides.

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Question: Which of the below industries contributes the most to climate change?

- a. Agriculture
- b. Fashion
- c. Transportation
- d. Construction

Answer: A! Agriculture - Agriculture accounts for about 11% of greenhouse gas emissions. This is caused primarily by the effect of deforestation, and by methane and nitrous oxide emissions from crop and livestock activities. Regenerative agriculture offers a more sustainable way to produce food, with the potential to actually sequester more carbon in the soil than is emitted.

Question: Regenerative Agriculture is often seen as a more sustainable alternative to large-scale factory farming, which is a significant polluter. Which of the following benefits is NOT associated with regenerative agriculture?

- a. Producing healthy crops and soil that can sequester carbon from the air
- b. Local farms reduce pollution from delivering food across countries or even oceans
- c. Cutting out animal agriculture to reduce water needs and methane output
- d. Adding air and plant matter to soil that can soak up water, reducing the risk of flooding

Answer: C! - While some regenerative farms don't participate in animal agriculture, many do, and make effective use of grazing animals to keep weeds in check, and their soil healthy.

Question: *True or False*, Carbon capture could prevent up to 14% of greenhouse emissions by 2050

Answer: False! – Although we wish this was true, the results of existing carbon capture projects show that they're not nearly as effective as expected. Although they can capture some industrial output, they are unlikely to ever achieve the lofty targets fossil fuel companies once promised, and we can't afford to continue polluting at our current rate in hopes that carbon capture will catch up.

Question: *True or False*, we need to reduce 100% of plastic use to avoid further global warming

Answer: False! – Although fossil fuel companies might make it seem like activists think 'everything must go' when it comes to plastics, what we really need is a reduction in single use plastics that can be replaced with more sustainable alternatives. Plastic essentials, like those employed by hospitals, do not need to be done away with.