

Passage Comprehension 2

Grade 4

Our Changing Climate: A Global Challenge

Climate change is one of the most significant challenges facing our planet today. Just like a blanket keeps us warm on a cold night, gases in Earth's atmosphere trap heat from the sun, keeping our planet at a comfortable temperature. This natural process is called the greenhouse effect. However, over the past 150 years, human activities have been adding more of these greenhouse gases to the atmosphere, causing the Earth to warm up more than it should.

When we burn fossil fuels like coal, oil, and natural gas to power our cars, homes, and factories, we release a gas called carbon dioxide into the air. Scientists have discovered that the amount of carbon dioxide in our atmosphere has increased by more than 45% since the Industrial Revolution began in the 1800s. This extra carbon dioxide acts like an extra-thick blanket around Earth, trapping more heat than necessary.

The effects of this warming are visible all around us. In the Arctic, ice that has existed for thousands of years is melting at an alarming rate. Polar bears and other Arctic animals are finding it harder to hunt and survive as their icy habitat disappears. The melting ice also causes sea levels to rise, threatening coastal cities and islands. In fact, scientists have found that global sea levels have risen by about 8 inches since 1900.

Climate change doesn't just affect cold places; it impacts weather patterns worldwide. Some regions are experiencing more severe droughts, while others face stronger hurricanes and heavier rainfall. In Australia, unusual weather conditions led to devastating bushfires in 2019-2020, affecting millions of animals and destroying vast areas of forest.

However, there is hope. Countries around the world are working together to solve this problem. Many are switching to clean energy sources like solar and wind power, which don't

release greenhouse gases. People are also making small but important changes in their daily lives, such as using less electricity, recycling, and choosing to walk or cycle instead of driving.

Young people are playing a crucial role too. Students worldwide are learning about climate change and finding creative ways to help protect our planet. From starting school recycling programs to planting trees in their communities, children are showing that everyone can make a difference in fighting climate change.

Comprehension Questions (Answer in 40-50 words)

1. Explain how the greenhouse effect works and why it's important for Earth.

2. What specific changes have scientists observed in the Arctic region due to climate change?

3. How are young people contributing to the fight against climate change? Give examples from the passage.

Vocabulary and Grammar

4. Find words from the passage that mean:

a) extremely worrying (paragraph 3)

b) destructive (paragraph 4)

c) important (paragraph 5)

5. Write the antonyms of:

a) significant (paragraph 1)

b) severe (paragraph 4)

c) creative (paragraph 6)

6. From paragraph 2, identify:

a) one proper noun

b) two common nouns

c) one compound word

7. Frame a meaningful sentence using the phrase "making a difference."

Notes-

Answer Key

1. The greenhouse effect is a natural process where atmospheric gases trap the sun's heat, maintaining Earth's temperature. Like a blanket, these gases keep our planet warm enough for life to exist. However, excess greenhouse gases are causing too much warming.
2. The Arctic is experiencing rapid ice melt, affecting wildlife habitats. Polar bears are struggling to survive as their hunting grounds disappear. This melting also contributes to rising sea levels, which have increased by 8 inches since 1900.
3. Young people are actively fighting climate change through various initiatives. They're starting recycling programs in schools, planting trees in their communities, and learning about environmental protection to create positive change for the future.
4. Vocabulary answers:
 - a) alarming
 - b) devastating
 - c) crucial
5. Antonyms:
 - a) insignificant
 - b) mild
 - c) unimaginative
6. Grammar:
 - a) Industrial Revolution
 - b) cars, factories

c) greenhouse

7. Sample sentence: By reducing our use of plastic bags and recycling regularly, we are making a difference in protecting our environment.

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