

This book is part of the Ikpigittiarlugik Nuna Imarlu reading series, developed by the Department of Environment in Nunavut. The Ikpigittiarlugik Nuna Imarlu reading series is a unique, Nunavut-developed literacy initiative that infuses environmental stewardship, hunting practices, and knowledge of Nunavut's land and sea into a culturally appropriate reading program.

The Ikpigittiarlugik Nuna Imarlu reading series was developed to support the reading level guidelines outlined in Uqalimaariuqsaniq, the Department of Education's Inuktitut guided reading program. Uqalimaariuqsaniq is a sequential and progressive Inuktitut reading program that supports students in their development as readers.

Book details

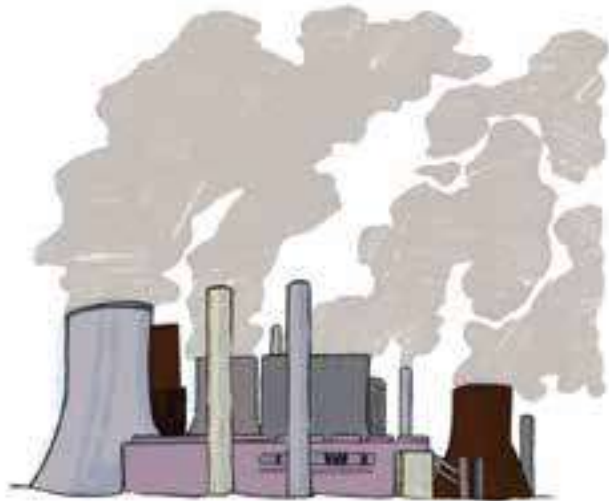
Level: 12

Text type: Non-fiction

Subjects/themes: Definition of air pollution, common causes of air pollution, health effects of air pollution, ways to prevent air pollution

Key features: 32 pages, key terms defined within the text, bulleted list, supportive illustrations

What Is Air Pollution?



Written by
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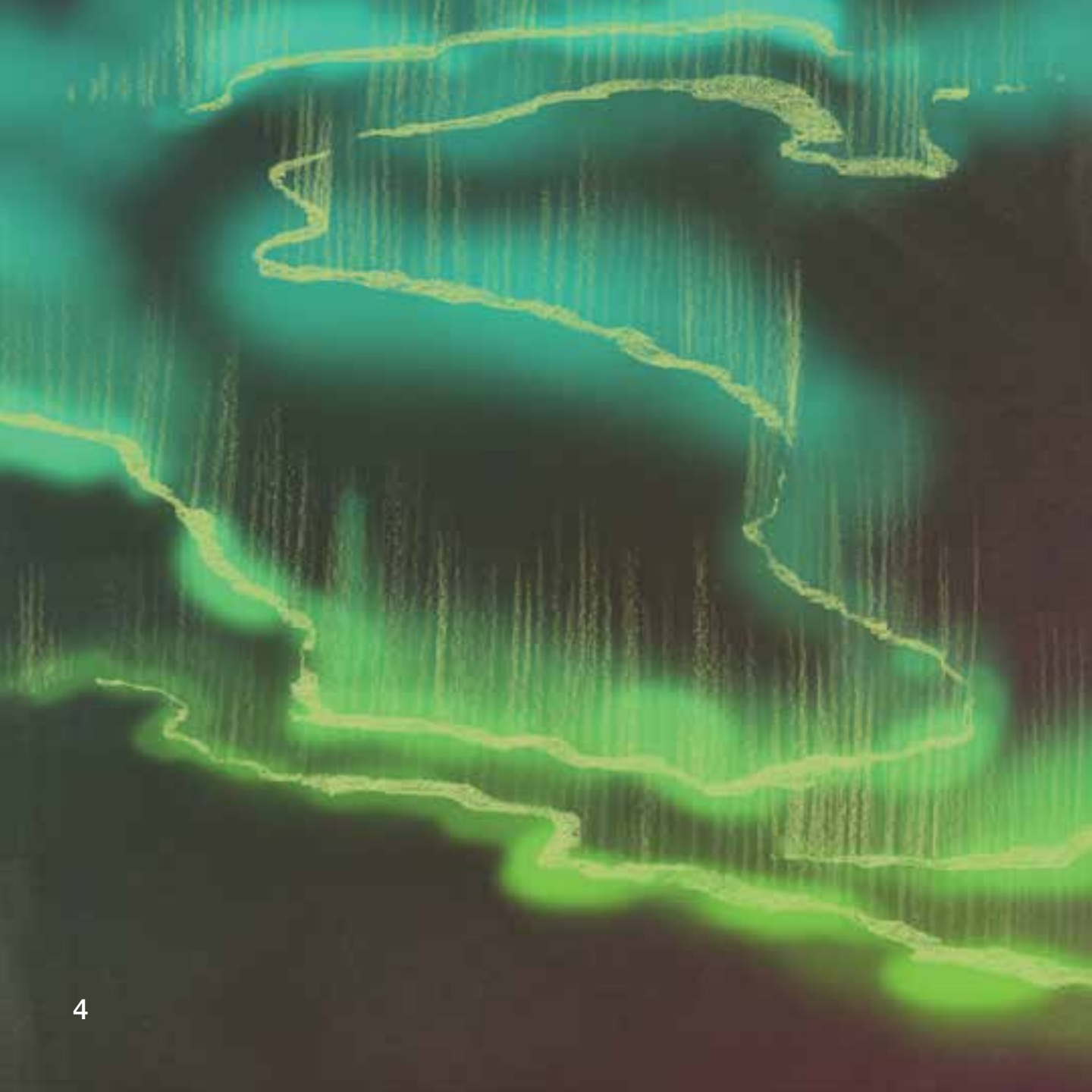
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Air is all around us, even though we usually can't tell it is there. But what is air?

Air is the mix of gases in Earth's atmosphere, including oxygen and carbon dioxide.

Humans, animals, and plants need air to live and grow.





Sometimes we can feel the air when it is windy or humid. Humidity is when moisture gathers in the air. Humidity is most noticeable in warm, wet locations around the world.

Sometimes we can see the air. When we see the northern lights, we are seeing energy and particles from the sun interacting with gases in the air. Particles are tiny pieces of matter.

Sometimes we can see the air when it is unclean. This means that it is polluted.

Air is polluted when it is full of smoke, dust, fumes, or smells. When we breathe in polluted air, we breathe in all the unhealthy things that are in the air.

For example, in spring or summer, the wind blows around dust from the ground. This is a form of air pollution.





Smoke from fires also pollutes the air. Smoke contains gases and particles that are harmful for people and animals to breathe in.

Burning buildings create harmful fumes. For example, when a building is on fire, it creates harmful smoke. Buildings are made of materials like plastic, metal, or painted wood. When these materials burn, these chemicals fill the air.

This is also why it is important that when we have bonfires, we burn only clean, unpainted wood.

Air pollution can also be caused by people. Some common causes of air pollution include smoke from cigarettes, vehicles, factories, or power plants burning fossil fuels.

Fossil fuels are materials like coal, natural gas, and oil. Fossil fuels are formed from animals and plants that lived a long time ago and then decomposed. These materials are found deep underground, so mines and oil wells are used to get these materials from the earth. Fossil fuels are burned to create energy like electricity and heat.





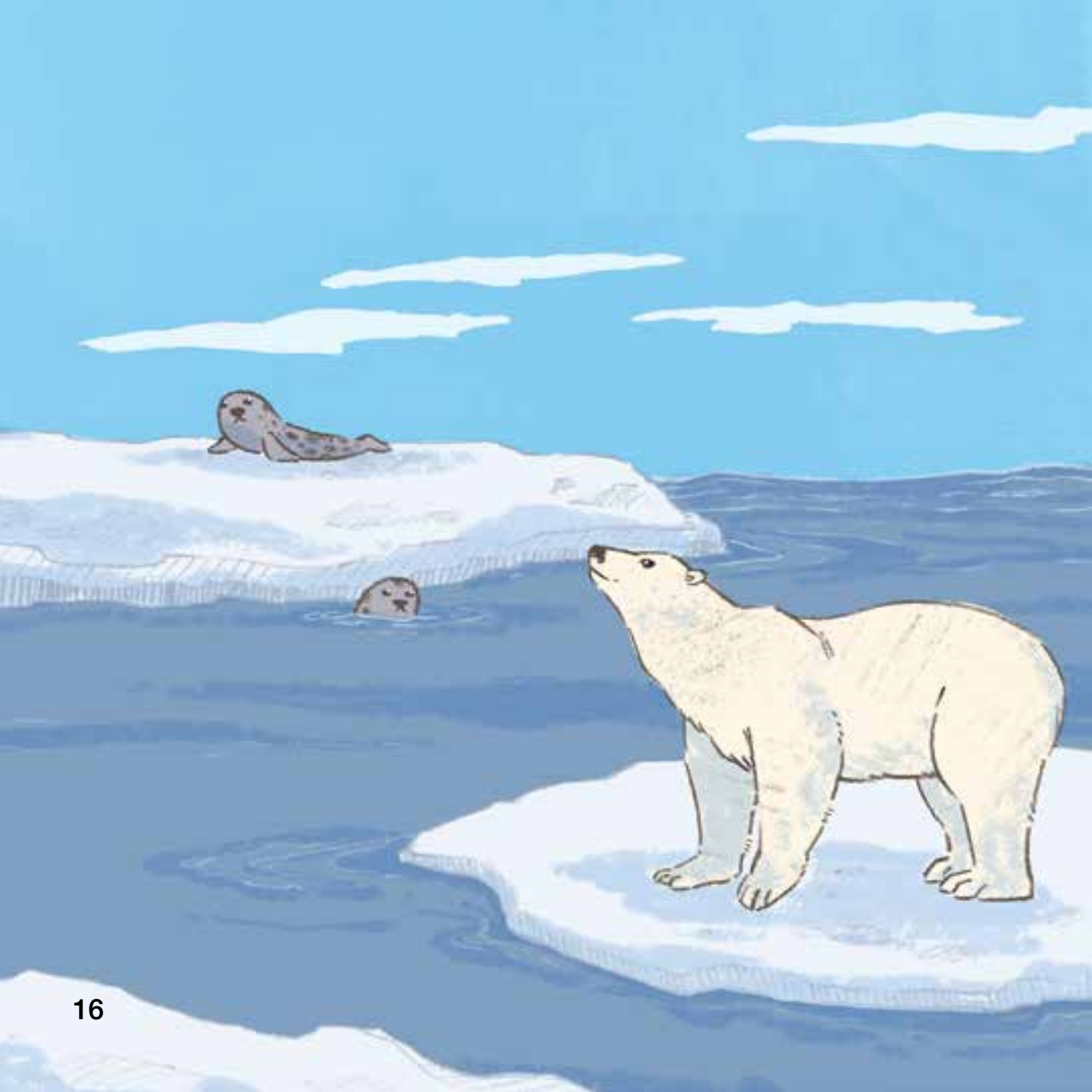
When fossil fuels are burned, they create fumes. Fumes are gases or smoke that can be strong-smelling and can contain harmful chemicals. The fumes created from burning fossil fuels are called “emissions.”

In some big cities, emissions from factories and vehicles combine to create smog. Smog is a mix of gases and tiny particles that can cause the air to look hazy or foggy. The word “smog” is a combination of the words “smoke” and “fog.”

Air pollution can have short-term effects on humans. Air pollution like smog or smoke from fires can cause an itchy throat or nose, or burning eyes.

There can also be serious long-term effects like asthma attacks, difficulty breathing, lung disease, or heart disease.





You might think that air pollution is not a problem in Nunavut because communities are surrounded by nature and have far fewer factories and vehicles than big cities.

But emissions from factories can travel hundreds or even thousands of kilometres in the air. This means that air pollution from the other side of the world can affect people, animals, and plants in Nunavut.

Nunavummiut also produce air pollution. Vehicles such as cars, trucks, all-terrain vehicles, and snowmobiles produce exhaust, which pollutes the air.

Some communities burn garbage at their dump when it becomes too full. This is called a controlled burn. Workers try to make sure the fire only burns on days when wind is blowing away from town, so that harmful fumes don't blow into the community.





Some communities in Nunavut now have special equipment that monitor air quality. This equipment is set up in air quality monitoring stations. These stations collect information about the air in the community. Scientists study this information to find out if there is air pollution that might be harmful for people, plants, or animals.

The Air Quality Health Index is a tool that scientists use to tell people what the quality of the air is where they live. There are 10 levels on this tool.

- Levels 1 to 3 mean the air is good for everyone to breathe.
- Levels 4 to 6 mean the air could be harmful to people who are sensitive to air pollution, like children, pregnant women, or Elders.
- Levels 7 to 10 mean the air will be harmful for everyone to breathe, so it is best to stay indoors.

Scientists decide what level the air quality is and then report that number to the community.





You can help monitor the air quality in your community by knowing when something is happening that might affect someone who is sensitive to air pollution.

For example, if you are outside playing and notice that high winds are picking up lots of dust, you could ask your grandmother to stay indoors until the winds calm down.

If there is a fire in your community, you could ask your neighbours with young children to close their windows.

You can also help to keep the air in your community clean! Here are some ideas.

Walk or bike to a friend's house or to school instead of getting a ride.

In the warmer months, ask your family members to avoid leaving their truck, ATV, or snowmobile running when they are not using it.

With fewer vehicles running, less exhaust will be released into the air.





Be resourceful. Reuse whatever you can, buy things that were made or hunted in Nunavut, and care for what you own.

Many supplies like food, paper products, and clothing have to be sent to Nunavut by ship or airplane, which releases exhaust into the air.

By being resourceful, you can help reduce the amount of things that need to travel to Nunavut. Over time, this could mean fewer ships and airplanes needed, and less garbage sent to dumps.

Try to use less electricity at home. Turn off lights or electronics when you are not using them, and keep windows closed in the winter. This means that power plants don't have to work as hard and can produce fewer emissions.



If everyone works together, we can make our air cleaner for ourselves and our planet!



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