

# Technology in the Community



This book is part of the Tulliniliara Reading Series, developed by the Department of Family Services in Nunavut. The Tulliniliara Reading Series is a unique, Nunavut-developed literacy initiative that infuses awareness of skills, interests, and careers into a culturally appropriate reading program.

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

The Tulliniliara Reading Series will inform readers about jobs available in their community. It will also provide opportunities for readers to consider their own interests and skills when thinking about future work. Awareness of career possibilities at a young age will better prepare children to understand the opportunities that are open to them and the importance of staying in school.

These books represent the Department of Family Services' investment in the early development of our future workforce.

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## **Book details**

<b>Level:</b>	14
<b>Text type:</b>	Fiction
<b>Subjects/themes:</b>	Examples of different kinds of technology commonly found in Nunavut, descriptions of how these technologies work, examples of jobs that use or maintain different types of technology
<b>Key features:</b>	32 pages, bulleted lists, definitions embedded within the text, section headers, supportive illustrations

# Technology in the Community



Written by  
**Jordan Hoffman**

Illustrated by  
**Ali Hinch**

We use technology every day. Technology is the use of science to do practical tasks or solve problems. It often involves machines or tools.

We use technology at home, at school, in stores, in the health centre, and in many other places in the community.

We use technology for many different reasons. People use technology for fun, learning, and work. Technology helps us:

- Find information
- Communicate
- Create
- Travel around the community or on the land
- Warm our homes
- Keep ourselves healthy
- Make the clothing we wear

Let's look at some examples of technology.



## Did you know?

Newer vehicles have computers, too. These computers help drivers navigate where they are going, play music, or even warn drivers if there is a problem with the engine.



## **Computers**

Computers are electronic devices. Computers work by taking information put in by a user and displaying that information in a useful way, such as in a document.

People use personal computers to receive, process, store, and display information. A smartphone or laptop is an example of a personal computer.

Computers can also be used for complex tasks, like processing lots of information very quickly. These computers can be called mainframe computers or supercomputers. They can be used to do banking, weather forecasting, or other scientific calculations.

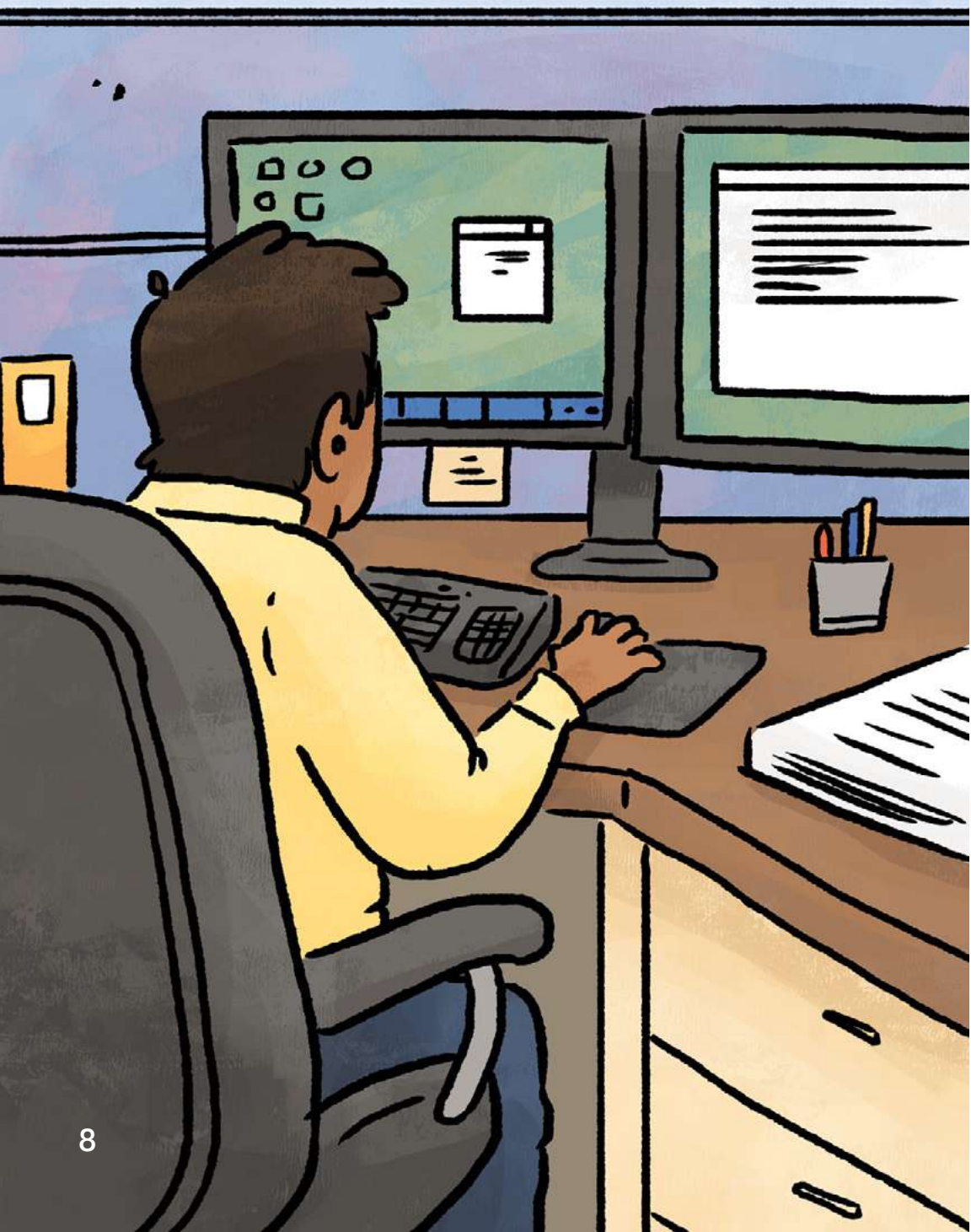
People use computers at home to send email, browse or shop online, write documents, or look at photos from a camera.

Smartphones can help us talk or text with friends or family. When they are connected to the Internet, we can use them to look up information, like the score of a hockey game.

## Did you know?

When personal computers were invented, they were very large, expensive, and hard to use. Now, you can find them in all kinds of different places such as your home or school, in vehicles, or at the store.





Many different types of jobs depend on computers. Scientists, store clerks, pilots, bankers, mechanics, teachers, and doctors all use computers daily while doing their jobs.

It is important that computer systems work well because so many people and jobs in a community rely on them. There are many careers that focus on making sure computers work well. Software engineers, computer technicians, and information technology managers keep computers running and working well.

## **Transportation Technology**

Nunavummiut use many different technologies to get around town, visit friends or family, or travel on the land.

### **Snowmobiles**

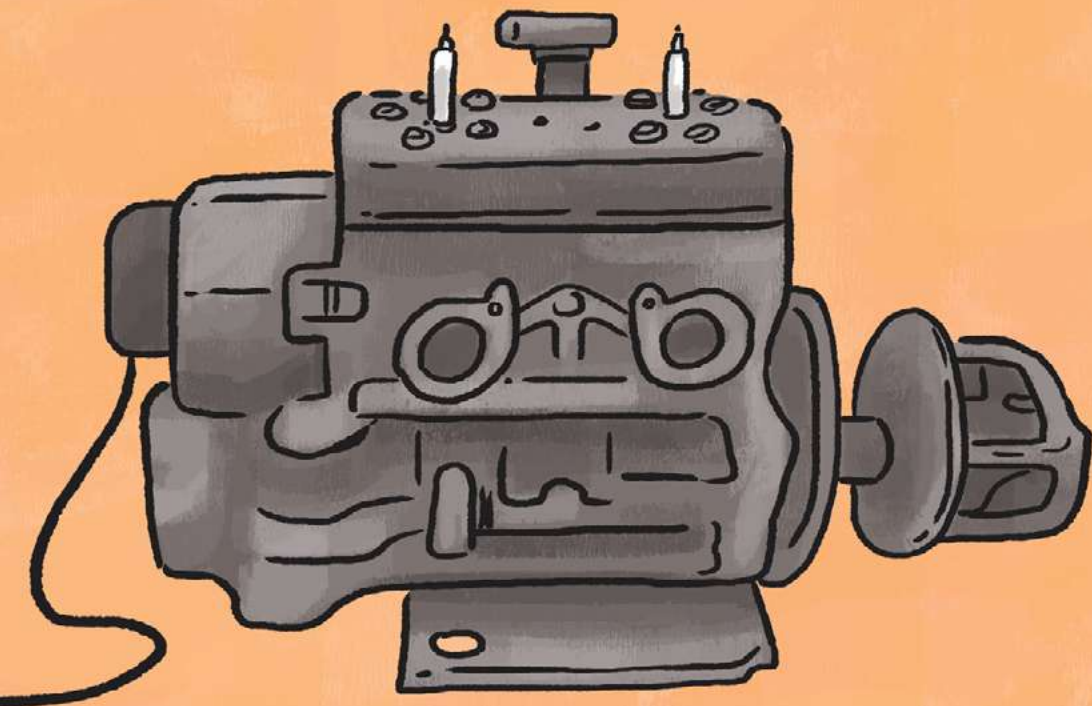
Snowmobiles are an important way of moving around our community and on the land. A snowmobile engine is a type of technology that is used to make snowmobiles move along the snow or ice.

Hunters spend lots of time on their snowmobiles in the winter and spring. They need to make sure the snowmobiles are working properly when they are out on the land.



### Did you know?

A lot of technology and people are involved in getting a snowmobile to Nunavummiut! Airplane cargo and sealift workers bring snowmobiles to the North. Store clerks sell snowmobiles and parts to people in your community.



### Did you know?

The engines in snowmobiles, cars, and trucks all work the same way. Snowmobile engines are much smaller than the ones in cars and trucks, though!

A snowmobile engine burns gasoline to move parts called pistons. Energy is created by burning gasoline. This moves the pistons up and down in a cylinder. This movement helps move the tracks of the snowmobile.

Mechanics help keep snowmobiles running. For example, they maintain, fix, or replace parts in snowmobile engines.

## **GPS Devices**

What is your position on the globe?

GPS stands for Global Positioning System. Devices with GPS technology help people know where they are almost anywhere in the world.

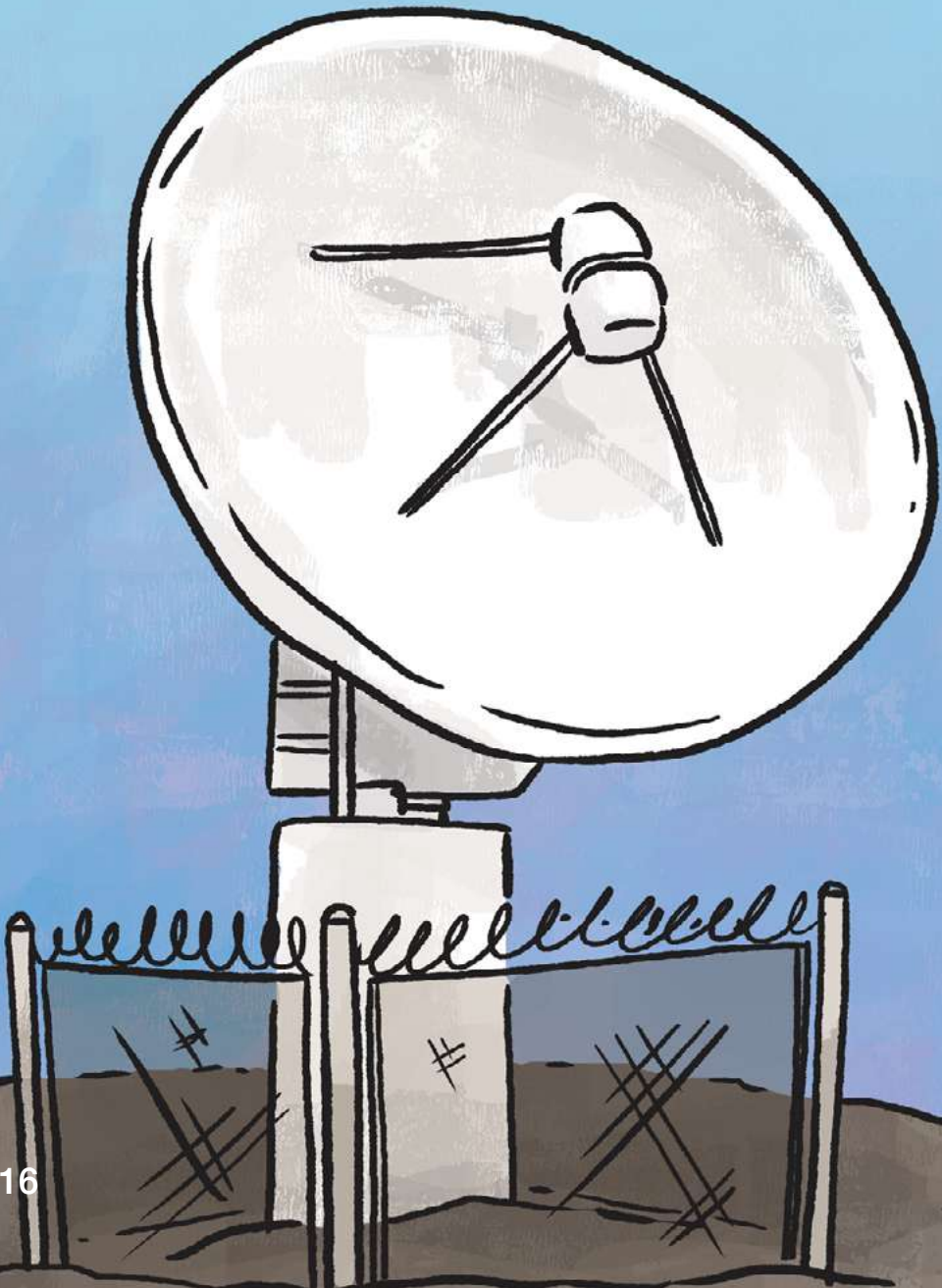
Many people use GPS devices in Nunavut. Hunters use them when they are out on the land in an unfamiliar area or during bad weather. Boaters use GPS devices to navigate bays and inlets. The devices help them avoid rocks and other hazards.

Pilots, fishers, mining prospectors, coast guard workers, and people doing many other jobs use GPS devices every day.



## Did you know?

Many people around the world make sure that satellites, ground stations, and GPS devices function well.



GPS devices are portable. They get signals from satellites. The Global Positioning System includes three aspects:

1. Satellites, which orbit Earth and send signals down to Earth
2. Ground stations, which keep track of the exact locations of satellites high above Earth
3. GPS devices, which detect signals from many different satellites at different distances

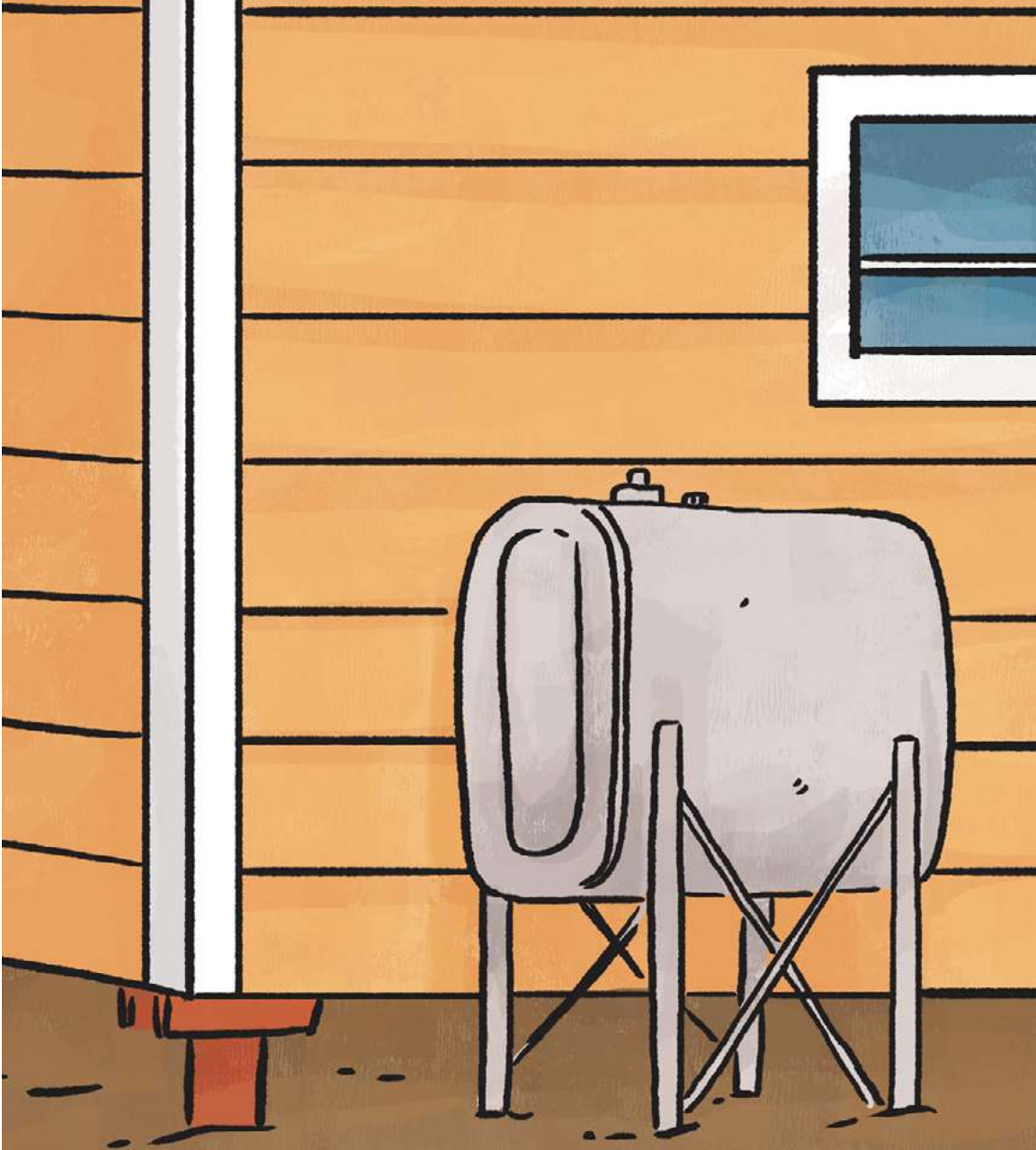
## **Technology at Home**

There are many different technologies in our homes. Home technologies keep us warm, provide us with light, and give us running water.

### **Boiler Furnaces**

Homes in Nunavut need to be heated for most of the year. Boiler furnaces keep homes, stores, and other buildings warm.

Boiler furnaces deliver hot water to taps and help keep families warm. They even prevent your water pipes from freezing on the coldest winter days.



### **Did you know?**

People that keep this technology running include plumbers and furnace technicians.



### Did you know?

Coleman stoves and qulliit are other types of technology that provide us with heat. These work the same way as a boiler furnace. They burn fuel to keep a fire burning, which warms tents, shacks, and igluit.

The boiler furnace in your home burns fuel to heat water. Then the heated water is pumped throughout your house in radiators placed around the edge of rooms. The heated water in the radiators gives off heat into the air in your home.

You control the temperature with the thermostat. The boiler will pump more or less heated water to radiators in your home based on how you set the thermostat.

## **Technology for Art**

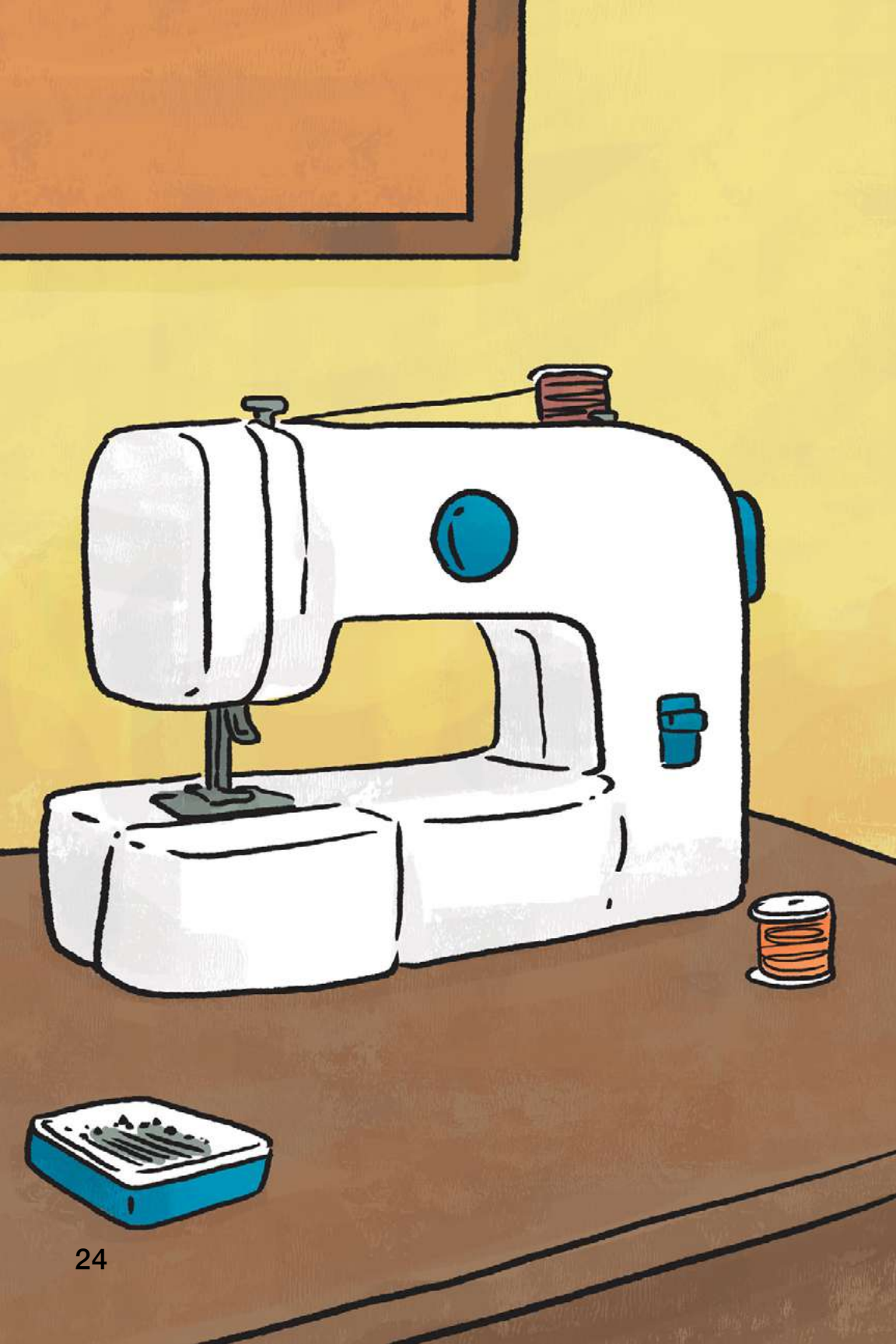
We can make art using technology, such as the tools we use for sewing or carving.

### **Sewing Machines**

Before there were sewing machines, Nunavummiut used needles and thread or sinew to sew. Some Nunavummiut continue to sew by hand. Some use sewing machines to sew faster and in different ways.

Many people in Nunavut know how to sew and use sewing machines. This knowledge was passed down by Elders.





Sewing machines make stitches in a way that is different from hand sewing.

The needle carries a thread from the top of the sewing machine to make a stitch with a second thread coming from below.

An electric motor in the sewing machine moves the needle up and down. The motor also helps feed the material through the machine.

## **Medical Technology**

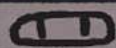
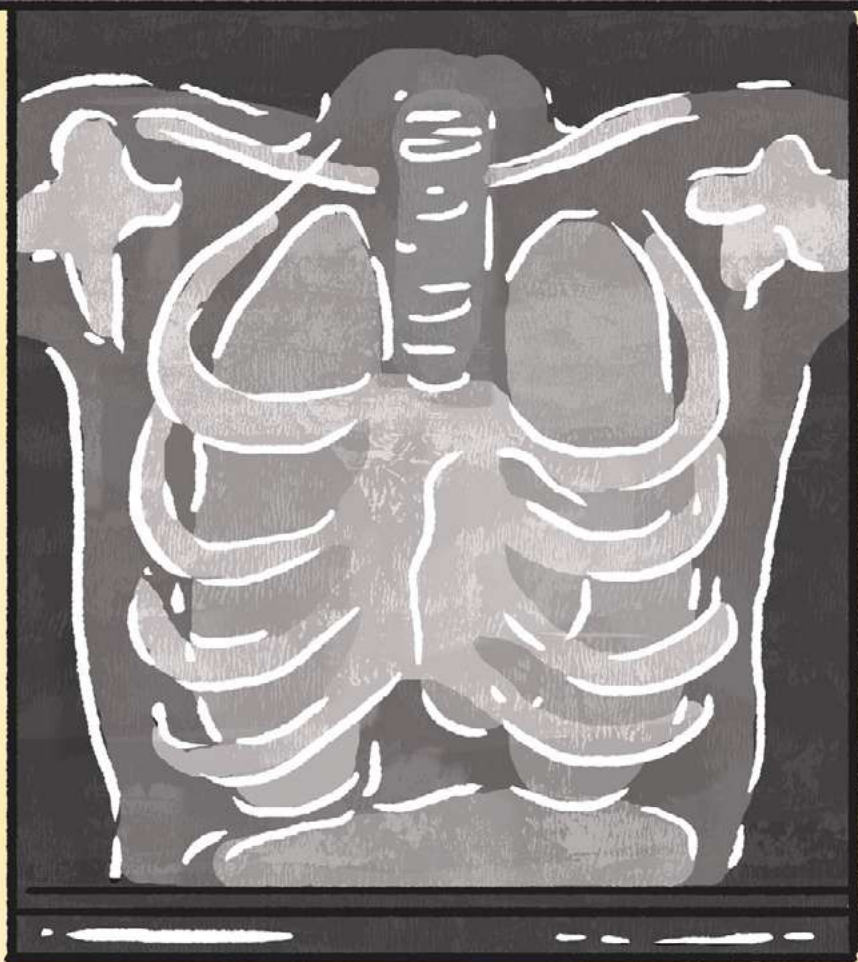
Hospitals and health centres are full of technology. Doctors and nurses use technology to find out if we are sick or injured. Some technology can help us get better and stay healthy.

### **X-Ray Machines**

X-ray machines take a special kind of picture of what is inside your body. For example, a doctor who wants to see your lungs can ask for an X-ray of them.

X-ray machines release energy, similar to light, called X-rays. We cannot see these rays.



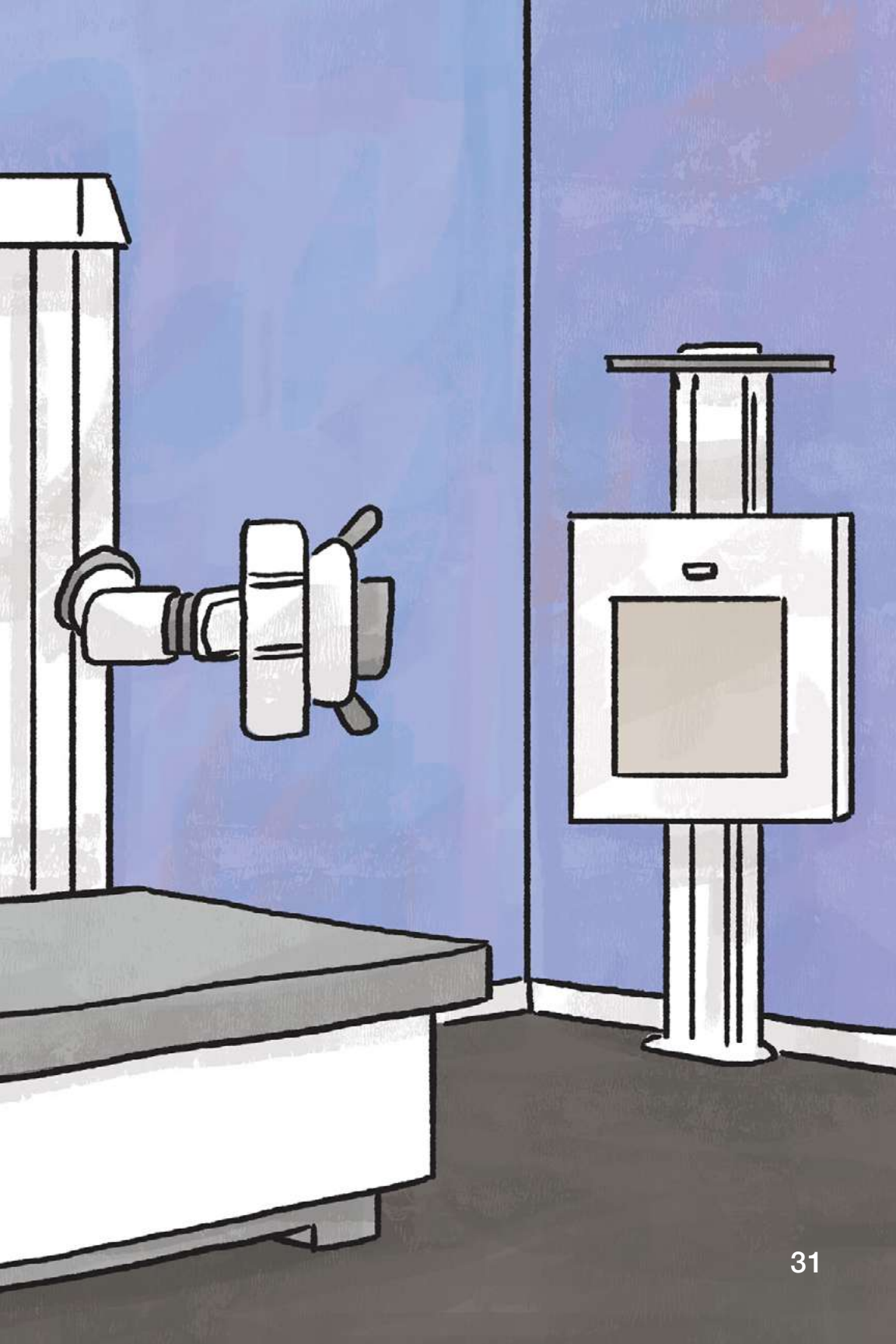


Here are some examples of what X-rays are used for:

- Doctors and nurses use X-rays to see if someone has broken bones.
- Doctors and nurses can also use an X-ray to see what is happening inside a sick person's body.
- Dentists use X-rays to look for cavities in teeth, or to see if new teeth are growing in.

X-rays are able to pass through solid objects. X-rays leave the X-ray machine and pass through your body. The rays then hit a special type of paper, which absorbs the X-rays to create a picture of what's inside you. How does this happen?

- X-rays pass right through your skin and muscle to show as black on the special paper.
- X-rays that hit something dense in your body show as white on the special paper. For example, your bones will show as white compared with other parts inside your body. X-rays don't pass through your bones because they are too dense.



# Technology in Our Communities

In our communities, we use many types of technology for many different reasons.

Can you think of other examples of technology in your community? How do you use technology?



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