

# Arctic American Indians

The Inuit people lived in the northern part of Alaska and 11  
Canada. Everything about the lives of the Inuit was 20  
influenced by the cold climate in which they live. The Inuit 31  
made their homes out of snow and ice for the winter, 42  
because mud and wood are hard to find in the tundra. Many 54  
people call these homes "igloos". In the summer, they would 64  
make homes from animal skin stretched over a frame made 74  
from whalebones. The Inuit needed warm clothing to survive 86  
the cold weather, so they used animal skins and furs. They 96  
made boots, hats, and jackets from caribou and seal skin. 106  
The Inuit people were unable to farm in the tundra. They 117  
mostly lived off of meat from hunting animals. They used 127  
harpoons to hunt seals, walruses, and the bowhead whale. 136  
They also ate fish and wild berries. The Inuit used dogsleds 147  
and sled dogs for transportation. On the water, the Inuit 157  
used different kinds of boats for different activities. 165

Number of Words Read	Monday	Tuesday	Wednesday	Thursday
1 <sup>st</sup> Attempt	No school On Monday, Just Do Tues-Thurs			
2 <sup>nd</sup> Attempt	Nope			
3 <sup>rd</sup> Attempt	Still not at school.			

# Space weather threatens our high-tech life on Earth

By Roger Dube, The Conversation, adapted by Newsela staff on 04.23.18

Word Count **514**

Level **600L**



Image 1. A coronal mass ejection erupts from the sun in 2012. Image from NASA.

A space weather storm from the sun hit Earth in 1859. It was the largest ever. The night sky turned bright red and green. People in Colorado woke up and started making breakfast. They thought it was morning because of the light.

Back then, people used telegraphs to communicate. They sent electric signals over long wires. During this storm, telegraph systems went crazy. Large sparks shot out of them that started fires. Telegraph operators were burned.

Today's electronics and satellites would be ruined if an event like that happened again. Fixing everything would take years.

## Space Storms

Space weather storms have hit Earth many times. They are caused by huge explosions on the sun. Each explosion sends a very hot ball out into space. Some of these explosions head toward Earth's orbit. About three days later they become solar storms that affect the magnetic field around the Earth.



## Earth Gets Lit Up

The explosions create heat and light in Earth's atmosphere called an aurora. The electrical charges create electricity in anything that can carry it.

In 1989, a storm hit Earth. It was much weaker than the 1859 event. Still, it left 6 million people without power for nine hours. Another storm destroyed part of a power plant. It took six months to repair.

Larger storms will cause more problems for more people. The problems would take longer to repair, too.

## **No Power Could Mean No Phones Or Food**

A really bad storm would shut down power and communications everywhere.

There would be no simple way to fix everything. We would have no power to make repairs. People would have no running water. We would not be able to keep food cold. Gas pumps would not work. There would be no way to get anything from far away.

It could take up to 10 years to fix everything.

## **Be Prepared**

Larger systems are in greater danger than small ones.

Today, our electricity is brought to us by a huge web of wires. The wires go across continents. We need to split it into much smaller parts. Then, towns, neighborhoods or homes could disconnect from electricity when a space storm happens.

These smaller ways of sending electricity are called microgrids. There would still be problems. But we would have a better chance of fixing things easily.

## **Should We Get Ready For The Next Space Storm?**

It is only a matter of time before there is another bad space storm. We might only get a three-day warning.

Scientists are studying the sun to better predict these storms. They have not yet been able to give a useful prediction. It gets better each year, though.

The safest plan would be to set up microgrids. They could run on solar panels and wind power. These kinds of power would not be knocked out during a solar storm. It would protect us when these events happen.

*Roger Dube is a professor at Rochester Institute of Technology in New York.*

## Quiz

- 1 Read the list of events that happen during a space weather storm.

1. *Huge explosions happen on the sun.*
2. *The explosions become solar storms.*
3. \_\_\_\_\_
4. *Electrical charges start making electricity.*

According to the article, which answer option goes third?

- (A) Heat and light are created in Earth's atmosphere.
- (B) Power grids on Earth are damaged by the storms.
- (C) Large sparks start shooting out of electrical wires on Earth.
- (D) Scientists give a warning about when the storm will hit Earth.
- 2 What information will the reader find in the section "Be Prepared"?
- (A) when the next space weather storm will happen
- (B) what kind of damage is caused by space weather storms
- (C) why scientists want to learn more about space weather storms
- (D) how to protect electric systems during space weather storms

- 3 The author has an opinion about the world's electric systems.

Which selection from the article shows the author's opinion?

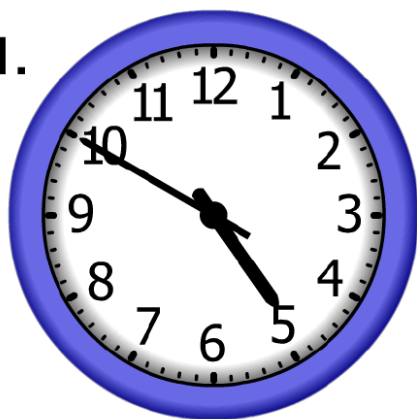
- (A) The explosions create heat and light in Earth's atmosphere called an aurora. The electrical charges create electricity in anything that can carry it.
- (B) There would be no simple way to fix everything. We would have no power to make repairs. People would have no running water.
- (C) Today, our electricity is brought to us by a huge web of wires. The wires go across continents. We need to split it into much smaller parts.
- (D) Scientists are studying the sun to better predict these storms. They have not yet been able to give a useful prediction.

- 4      Why did the author write this article?
- (A)      to compare the space weather storms of 1859 and 1989
  - (B)      to point out that electricity causes space weather storms
  - (C)      to explain the effects of space weather storms
  - (D)      to show that space weather storms start on the sun



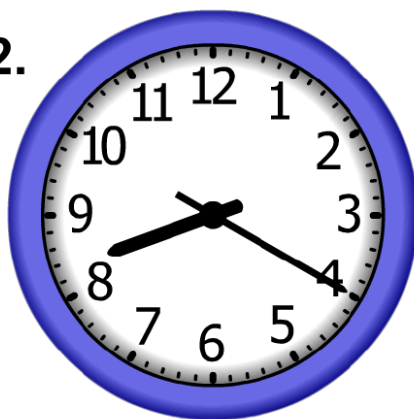
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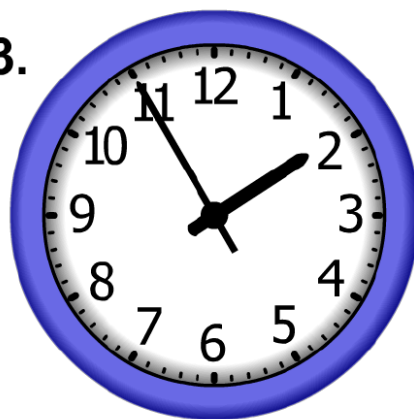
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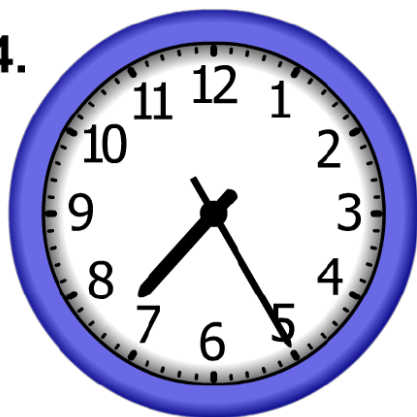
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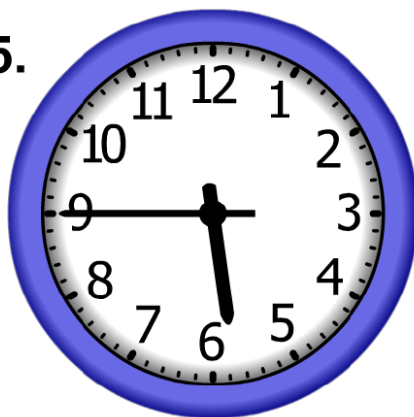
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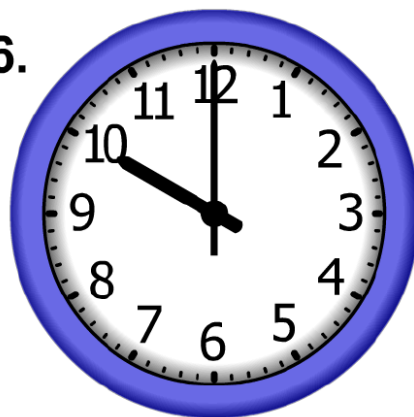
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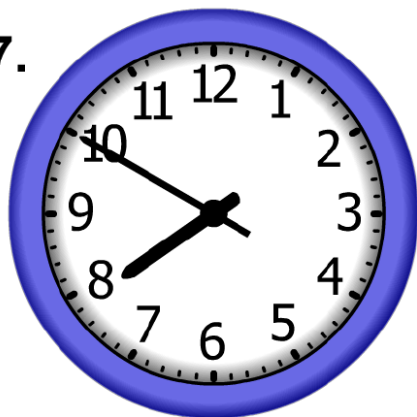
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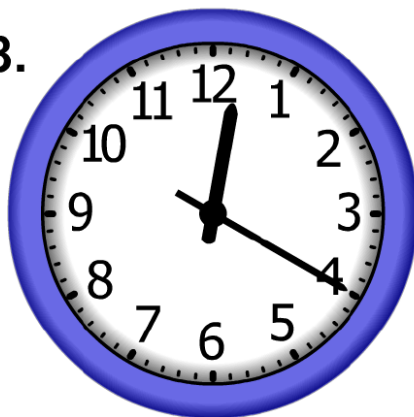
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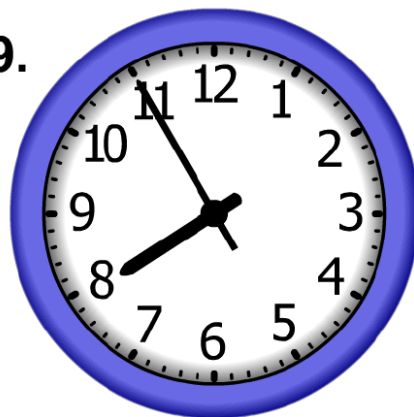
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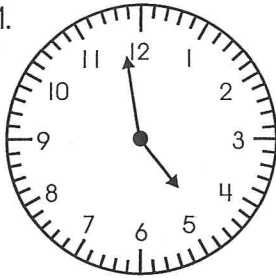
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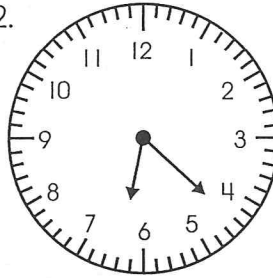
Write the time shown on each clock.

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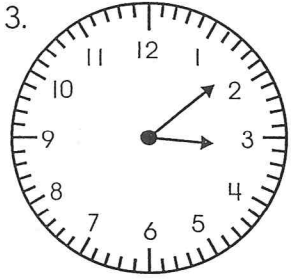
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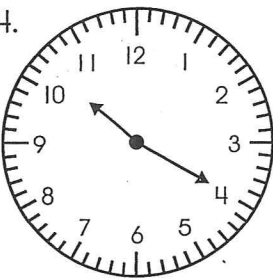
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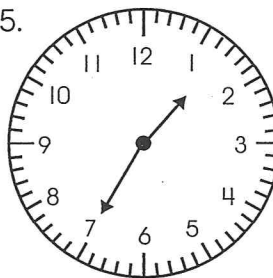
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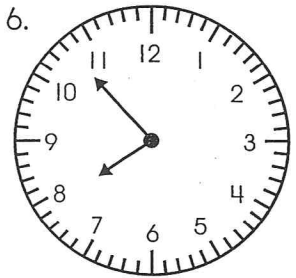
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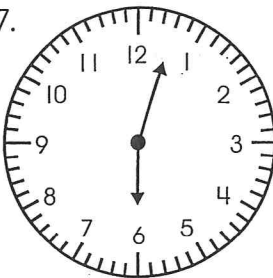
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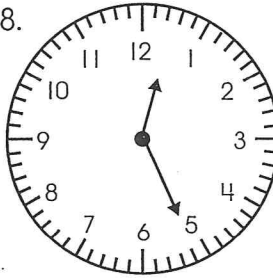
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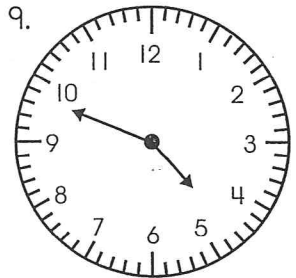
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☐ I can tell and write time to the nearest minute.



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Draw hands on each clock to show the time.

