

# Big Ideas

## ACADEMIC PATHWAYS

Lesson A: Understanding a biographical text  
Identifying supporting ideas

Lesson B: Ranking ideas in order of priority

Lesson C: Supporting the main idea and giving details  
Writing a descriptive paragraph

## Think and Discuss

1. Do you know any famous inventors?  
What did they invent?
2. What inventions are you using right now?

▲ Tiny silica balls, each one 120 nanometers (0.000000012 m) wide, kill cancer cells in a person's body. Nanotechnology was invented in the late twentieth century and is used in many modern inventions.

## Exploring the Theme

Read the information on these pages and discuss the questions.

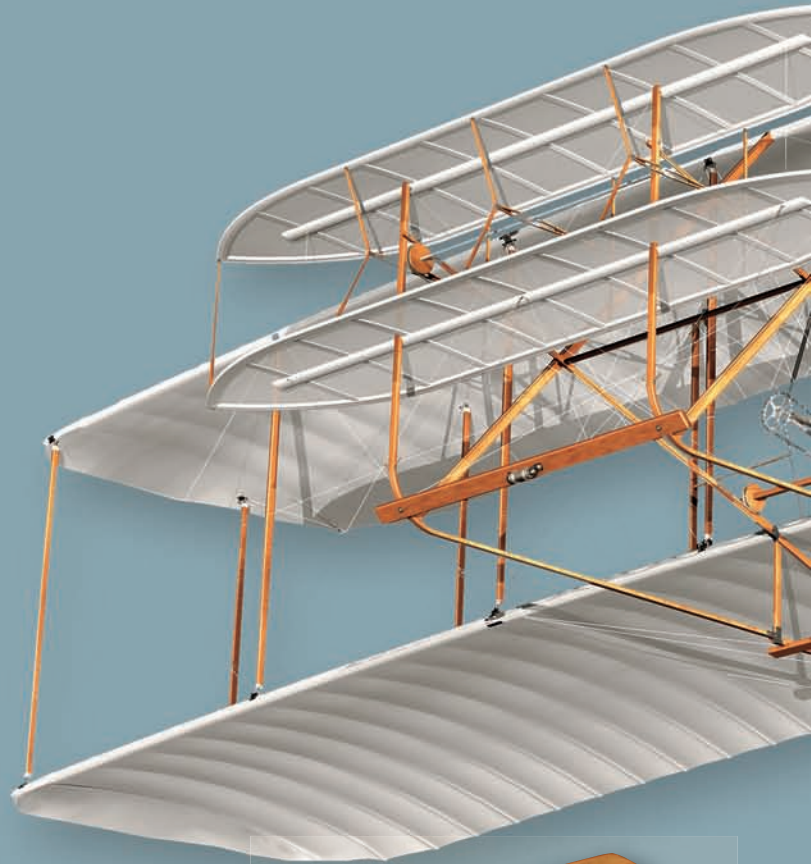
1. Do you agree with the list of the most important inventions? Can you think of other inventions to add?
2. In your opinion, which inventions made the biggest changes to our daily lives? How?
3. Which inventions saved the most lives? How?

## What's the World's Greatest Invention?

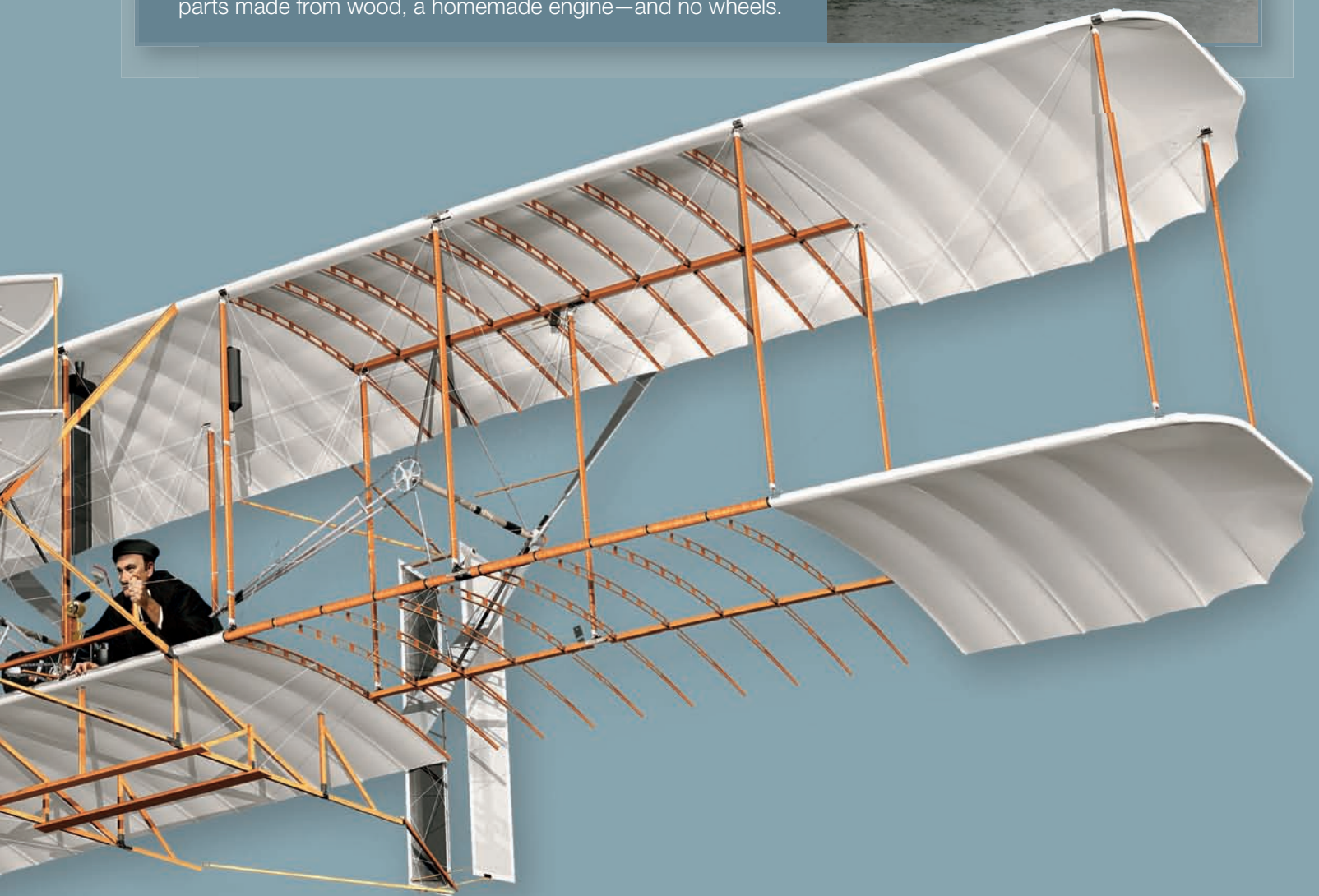
A U.K. company, Tesco Mobile, asked 4,000 people to name the world's most important invention. Some inventions—like the washing machine and wheel—make everyday life easier. Some, like the medicine penicillin, save lives. Others—like wireless technology and the Internet—changed the way we communicate. As Lance Batchelor, CEO of Tesco Mobile, says, “All of the inventions in this list have changed the world forever.”

- 1 wheel
- 2 airplane
- 3 lightbulb
- 4 Internet
- 5 personal computer
- 6 telephone
- 7 penicillin
- 8 iPhone
- 9 flushing toilet
- 10 combustion engine

Alexander Graham Bell invented the first **telephone** in 1876. His early interest in speech, sound, and music helped him understand how sound might travel along a wire. Later he created the Bell Telephone Company, which became AT&T, the largest phone company in the U.S.



Orville Wright made the first powered **airplane** flight (right) on December 17, 1903, on a windy hillside in North Carolina, USA. The flight lasted 12 seconds for a distance of 120 feet (36.5 meters)—shorter than a Boeing 707's wingspan. To build the *Flyer*, Orville and his brother Wilbur used bicycle technology, parts made from wood, a homemade engine—and no wheels.



The internal **combustion engine** is the main source of power for most cars, planes, and boats. A car's movement comes from burning fuel in the engine, which produces high-pressure gas. Other types of vehicles use electricity stored in batteries, like this solar-powered car.



- A | Building Vocabulary.** Find the words in **blue** in the reading passage on pages 25–26. Read the words around them and try to guess their meanings. Then write each word next to its definition.

1. \_\_\_\_\_ (*verb*) have enough money to pay for something
2. \_\_\_\_\_ (*verb*) gave the energy that something needed in order to work
3. \_\_\_\_\_ (*adjective*) able to do tasks well without wasting time or energy
4. \_\_\_\_\_ (*noun*) a form of energy that can be used for heating and lighting and to provide energy for machines
5. \_\_\_\_\_ (*noun*) energy from the sun's light and heat
6. \_\_\_\_\_ (*adjective*) having the ability to invent and develop new and original ideas
7. \_\_\_\_\_ (*adverb*) in the end, especially after a lot of problems
8. \_\_\_\_\_ (*noun*) the act of making sure that something does not happen
9. \_\_\_\_\_ (*noun*) the things people need for a job, hobby, or sport
10. \_\_\_\_\_ (*noun*) a drawing that shows how to make something

-  **B | Using Vocabulary.** Answer the questions. Share your ideas with a partner.

1. Describe one way in which you are **creative**.
2. What **equipment** do you use for your job or for your hobby?
3. **Solar power** is one source of energy. What are some other ways to produce **electricity**?

-  **C | Brainstorming.** Make a list of things you use every day that require electricity.

- |          |          |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

- D | Predicting.** Read the title and look at the photos on pages 25–26. What do you think the reading is about? Write one sentence.
- 

### Word Link

The suffix **-tion** can turn some verbs into nouns, e.g., prevent / **prevention**, define / **definition**, act / **action**, create / **creation**, contribute / **contribution**.



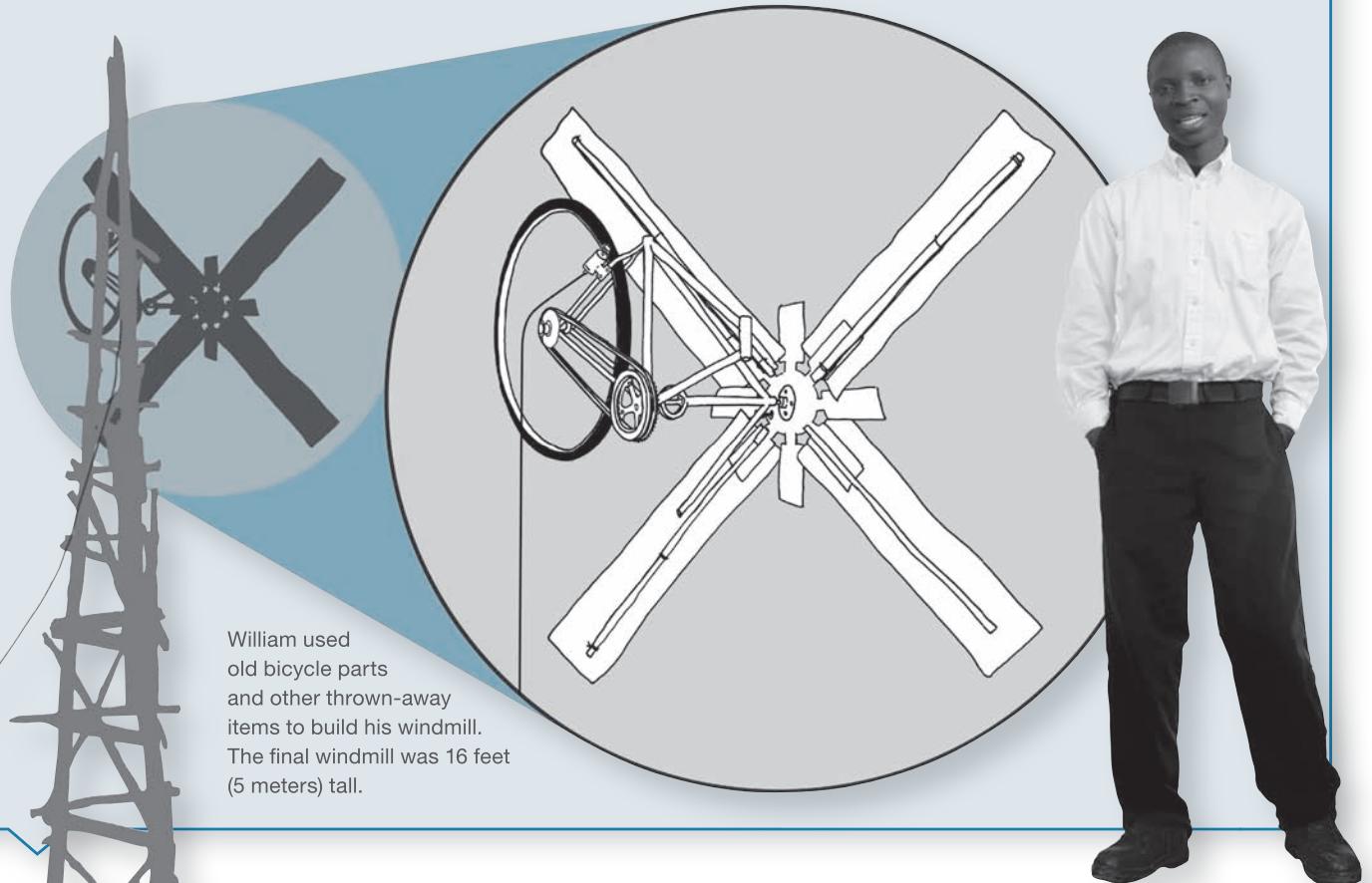
# The Power of Creativity

A

**WILLIAM KAMKWAMBA** lives in Malawi, Africa, where most people have to grow their own food and have no **electricity** or running water.<sup>1</sup> Only two percent of Malawians can **afford** electricity. With no electricity or running water, life is difficult. In 2001, when William was 14 years old, life in Malawi became even more difficult. There was a severe drought<sup>2</sup> and most families, including William's, couldn't grow enough food. He explains, "Within five months all Malawians began to starve to death. My family ate one meal per day, at night."

B

Because of the drought, William's family couldn't afford to send him to school anymore. So one day William went to the library near his home. He wanted to continue his education. William found a science book called *Using Energy*. It included instructions for building a windmill. Windmills can be very **efficient** sources of electricity, and they can bring water up from underground. William didn't know much English, and he wasn't able to understand most of the book, but it was full of pictures and diagrams.<sup>3</sup> Looking at the pictures, William thought he could build a windmill for his family.



William used old bicycle parts and other thrown-away items to build his windmill. The final windmill was 16 feet (5 meters) tall.

<sup>1</sup> **Running water** is water that is brought into a building through pipes.  
<sup>2</sup> A **drought** is a long period of time with no rain.  
<sup>3</sup> **Diagrams** are drawings that show how something, e.g., a machine, works.

When William went home and started building his windmill, a lot of people laughed at him, including his mother. They didn't think he could do it, but William was confident. He saw the photo of the windmill in the book. That meant someone else was able to build it, so he knew he could build it, too. William was also **creative**. He didn't have the parts and **equipment** that he saw in the book's illustrations, and he couldn't buy them. So he looked for parts in junkyards.<sup>4</sup> He explains, "I found a tractor fan,<sup>5</sup> [a] shock absorber,<sup>6</sup> [and] PVC pipes.<sup>7</sup> Using a bicycle frame . . . , I built my machine."

C

William changed and improved his **design** little by little. First, the windmill **powered** only one lightbulb. **Eventually**, it powered four lights. Then there was enough electricity for four lights and a radio. No one laughed at William after that, and people in his town started to come to his house to get power for their cell

D



E

phones. Later, William built a second windmill. This one brought water up from underground. After that, William began to teach other people how to build windmills. He also continued to build more of them himself, including one at a primary school in Malawi.

Because of his success with the windmills, William was able to go back to school. He also helped with other projects, including **solar power**, clean water, and malaria<sup>8</sup> **prevention**. He wrote a book about his life, *The Boy Who Harnessed the Wind: Creating Currents of Electricity and Hope*. In addition, he uses his website, [movingwindmills.org](http://movingwindmills.org), to educate and give hope to people. His main message is this: "To the Africans, and the poor who are **struggling**<sup>9</sup> with your dreams . . . trust yourself and believe. Whatever happens, don't give up."<sup>10</sup>



<sup>4</sup> A **junkyard** is a place where old machines are thrown away.

<sup>5</sup> A **tractor fan** is a machine part that helps cool the engine in a tractor (a vehicle used on farms).

<sup>6</sup> A **shock absorber** is a machine part that helps make a car run smoothly over uneven roads.

<sup>7</sup> **PVC pipes** are tubes made from a plastic material (polyvinyl chloride).

<sup>8</sup> **Malaria** is a disease spread by mosquitoes.

<sup>9</sup> If someone is **struggling**, they are trying hard to do something because it is difficult.

<sup>10</sup> If you **don't give up**, you don't stop trying to do something, especially something that is difficult.

# UNDERSTANDING THE READING

**A | Understanding the Gist.** What is the main idea of the reading? Circle the best answer. Then compare with your prediction on page 24.

1. Windmills can create electricity and bring up water from under the ground.
2. In most parts of Malawi, there is no electricity or running water.
3. A young boy used his creativity to bring electricity to his village.

**B | Identifying Key Details.** Complete the sentences below with information from the reading.

1. In 2001, life became very challenging for William’s family because \_\_\_\_\_.
2. William found instructions for a windmill in a book called \_\_\_\_\_.
3. When he started to build his windmill, many people in his village \_\_\_\_\_.
4. He knew that he could build the windmill because \_\_\_\_\_.
5. After William built his first windmill, people came to his house to \_\_\_\_\_.
6. William’s second windmill was able to \_\_\_\_\_.

 **C | Critical Thinking: Making Connections.** Complete the chart below. Fill in the missing problems and solutions.

Problems				
William couldn't afford to go to school.	William couldn't read the book about windmills because he didn't know much English.		The village needed more water.	Other people wanted to build windmills but didn't know how.
Solutions				
		William went to a junkyard.		



**D | Personalizing.** Write answers to the questions.

1. Name a problem that you solved in your own life. How did you solve the problem? \_\_\_\_\_  
\_\_\_\_\_
2. Choose one of the inventions from page 22 or use your own idea. Describe the problem(s) that it solved.  
Invention: \_\_\_\_\_  
Problem(s) it solved: \_\_\_\_\_

**Reading Skill:** *Identifying Supporting Ideas*

Supporting ideas tell more about the main idea. They can do the following:

describe                      give reasons                      give examples

Look at the paragraph from the reading. What does each colored sentence do?

*When William went home and started building his windmill, a lot of people laughed at him, including his mother. They didn't think he could do it, but William was confident. He saw the photo of the windmill in the book. That meant someone else was able to build it, so he knew he could build it, too. William was also creative. He didn't have the parts and equipment that he saw in the book's illustrations, and he couldn't buy them. So he looked for parts in junkyards. He explains, "I found a tractor fan, shock absorber, [and] PVC pipes. Using a bicycle frame ... , I built my machine."*

The main idea of the paragraph is that William was confident and creative in building his windmill. The **green** sentences **give reasons** why William was confident. The **blue** sentences **give examples** of how William was creative. And the **purple** sentences **describe** how he did it.

- A | Analyzing.** Read the information about seat belts below. Write the main idea of the paragraph and the three supporting details

Main idea: \_\_\_\_\_

Supporting detail 1: \_\_\_\_\_

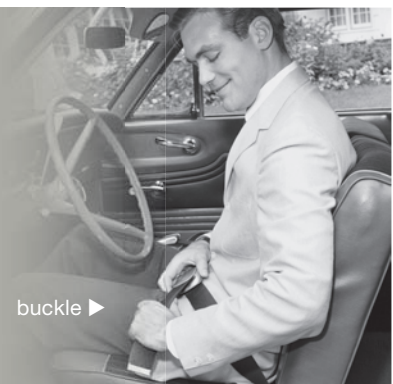
Supporting detail 2: \_\_\_\_\_

Supporting detail 3: \_\_\_\_\_



track 1-05

Many inventions change lives, but Nils Bohlin's invention has probably helped to save more than a million lives so far. Bohlin invented a new type of seat belt that is in all cars made today. Before Bohlin's invention, seat belts were buckled across the stomach (see picture). The buckles often caused injuries during high-speed accidents. Bohlin's seat belt holds the upper and lower body safely in place, with a buckle at the side.



- B | Identifying Supporting Details.** Look back at the reading passage on pages 25–26. Find and underline one supporting detail that gives a reason, one that gives an example, and one that describes.



# Solar Cooking



## Before Viewing

**A | Matching.** Here are some words you will hear in the video. Write each word or phrase next to the correct definition. Use your dictionary to help you.

absorb	alternative
developing world	fuel
pollution	purify

- \_\_\_\_\_ the process of making things such as air and water dirty
- \_\_\_\_\_ to take in something, such as gas, liquid, or heat
- \_\_\_\_\_ countries or parts of the world that generally have low standards of living
- \_\_\_\_\_ to make something clean by removing harmful or dangerous things from it
- \_\_\_\_\_ a different choice
- \_\_\_\_\_ things that provide heat or energy, such as oil, wood, or gasoline

**B | Brainstorming.** Many people in developing countries have to burn wood to cook their food. Why do you think this might be a problem?

*can cause air pollution*

## While Viewing

**A |** Watch the video about solar cooking. Does it mention any of the things that you listed in exercise **B** above? Circle any items that are mentioned.

**B |** As you view the video, think about the answers to these questions.

- How do solar stoves work?
- What can a person do with a solar stove? Who can benefit from them?
- How much does a solar stove cost and how long can it last?



▲ Cooking in many African countries is done the traditional way, over a wood fire.

## After Viewing

**A |** Discuss answers to questions 1–3 above with a partner.

**B | Critical Thinking: Synthesizing.** In what ways are William Kamkwamba's windmills and the solar cooker in the video similar?

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**A | Building Vocabulary.** Read the sentences below. Use the context to help you identify the part of speech (adjective, noun, verb) and meaning of each **bold** word. Write your answers. Check your answers in a dictionary.

1. Bottles are useful **containers** for water and other liquids. They make liquids easy to carry.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
2. Doctors have many different ways to **detect** diseases. For example, they can do blood tests or listen to your lungs to learn if you are sick.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
3. Solar power can **benefit** people in the developing world by providing them with free electricity.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
4. Cell phones can make a noise to **indicate** that you are receiving a text message.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
5. There have already been several **innovations** in this century. Text messaging and the tablet computer are just two examples.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
6. The cell phone is a popular **device** for things such as communication and Internet browsing. For things such as document creation and movie watching, a computer is a better choice.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_
7. The sun is a great source of **renewable** energy because we can't use up all the sun's heat and light.  
Part of speech: \_\_\_\_\_  
Meaning: \_\_\_\_\_

### Word Link

The suffix **-able** can turn some verbs into adjectives, e.g., renew / **renewable**, detect / **detectable**, afford / **affordable**, prevent / **preventable**.



8. Before refrigerators were invented, people could not **store** fresh meat. Instead, they had to store salted or dried meat.

Part of speech: \_\_\_\_\_

Meaning: \_\_\_\_\_

9. Morse code was invented in the 1930s. It is a **system** of communication that uses long and short sounds.

Part of speech: \_\_\_\_\_

Meaning: \_\_\_\_\_

10. The wheel is one of the most **valuable** inventions of all time. Without it, we would probably have to walk or ride on the backs of animals to travel long distances.

Part of speech: \_\_\_\_\_

Meaning: \_\_\_\_\_

 **B | Using Vocabulary.** Answer the questions in complete sentences. Then share your sentences with a partner.

1. What do you think is the most **valuable innovation** of the last 10 years? Why?

\_\_\_\_\_

2. What are some examples of **renewable** energy?

\_\_\_\_\_

3. What **devices** do you use every day?


\_\_\_\_\_

4. What kinds of things **indicate** a person's mood?

\_\_\_\_\_

5. What **system** do you use for remembering your schedule?

\_\_\_\_\_

 **C | Predicting.** Look at the photos, and read the title, subheads, and opening paragraph of the reading passage on pages 32–33. What do you think is the purpose of each of the items described? Discuss your ideas with a partner.

Infant Warmer \_\_\_\_\_

Water Container \_\_\_\_\_

Portable Clay Cooler \_\_\_\_\_

Health Detector \_\_\_\_\_

Solar Wi-Fi Light \_\_\_\_\_

### Strategy

**Use clues** in titles, headings, pictures, and captions to get a quick sense of what you will read. As you read in more detail, check whether your predictions were correct.

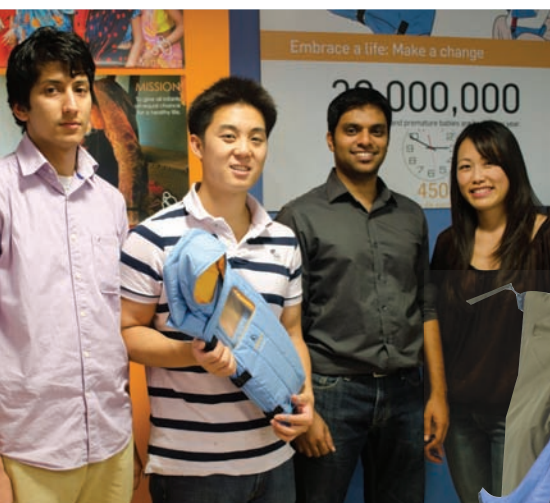


track 1-06

# Big Ideas: Little Packages

**CAN SIMPLE IDEAS** change the world? They just might, one new idea at a time. Creative designers and scientists are working to invent products for communities in developing countries. Some of their **innovations** might solve even the biggest problems—from health care to clean water.

A



▲ Developers of the Embrace Infant Warmer (left to right): Naganand Murty, Linus Liang, Rahul Panicker, Jane Chen.

## Infant Warmer

B

Around 19 million low-birthweight babies are born every year in developing countries. These babies weigh less than 5.5 pounds (2.5 kilograms) when they're born. Low-birthweight babies are often unable to keep their body temperatures<sup>1</sup> warm enough. Many get too cold and die. The Embrace Infant Warmer helps keep these babies warm. Developer Jane Chen says, "Over the next five years, we hope to save the lives of almost a million babies."

◀ "We hope that the Embrace Infant Warmer represents a new trend for the future of technology," says developer Jane Chen. "Simple, localized, affordable solutions that have the potential to make a huge social impact."



## Water Container

C

In poor areas, people often have to walk several miles to get clean water. Usually, women and children have to carry heavy **containers** of water home every day, and it is difficult work. The Q Drum holds 13 gallons (about 50 liters) in a rolling container. With this innovation, people can easily roll the water on the ground.



<sup>1</sup> Your **body temperature** is how hot or how cold your body is.



## Portable Clay Cooler

D

The pot-in-pot **system** is a good way to **store** food without using electricity. The user puts wet sand between two pots, one fitting inside the other. The water evaporates<sup>2</sup> and keeps food cool. That helps food stay fresh longer. For example, tomatoes can last weeks instead of just days. That way, people can buy more fresh fruits and vegetables at the market, and farmers can make more money.

## Health Detector

E

Scientist Hayat Sindi's **device** is the size of a postage stamp, and it costs just a penny. But it could save millions of lives. In many parts of the world, doctors and nurses work with no electricity or clean water. They have to send health tests to labs<sup>3</sup> and wait weeks for results. But this little piece of paper could change that. It contains tiny holes that are filled with chemicals. These chemicals can **detect** health problems. A person places a single drop of blood on the paper. The chemicals in the paper change because of the blood and **indicate** whether or not the person has an illness.



▲ Saudi-born inventor, Hayat Sindi, presenting her invention at the 2009 Pop!Tech conference.



## Solar Wi-Fi Light

F

The StarSight system is an innovation that can **benefit** millions of people around the world. It absorbs solar energy during the day to power streetlamps at night. The solar panels also power wireless Internet access. The result: **renewable** electricity for better street lighting and faster communication. This can be extremely **valuable** in places where it is difficult to get electricity.

<sup>2</sup> When a liquid **evaporates**, it changes to a gas as its temperature increases.

<sup>3</sup> **Labs** are laboratories, places where scientific research is done.

**A | Understanding the Gist.** Look back at your answers for exercise **C** on page 31. Were your predictions correct?

**B | Identifying Key Details.** Read the following sentences about the reading on pages 32–33. For each sentence, circle **T** (true), **F** (false), or **NG** (the information is not given in the passage).

- |  |          |          |           |
|--|----------|----------|-----------|
| 1. The infant warmer was invented to help low-birthweight babies.  | <b>T</b> | <b>F</b> | <b>NG</b> |
| 2. In poor areas, men and teenage boys usually carry water home.   | <b>T</b> | <b>F</b> | <b>NG</b> |
| 3. The portable clay cooler will cause farmers to make less money because people won't have to buy vegetables every day. | <b>T</b> | <b>F</b> | <b>NG</b> |
| 4. Hayat Sindi's low-tech diagnostic device is made of paper.  | <b>T</b> | <b>F</b> | <b>NG</b> |
| 5. Each solar Wi-Fi light can provide electricity for 10 to 20 homes at a time.  | <b>T</b> | <b>F</b> | <b>NG</b> |

**C | Identifying Supporting Ideas.** Find supporting details in the reading to answer each question below.

1. What is the reason that low-birthweight babies need infant warmers?

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2. What can the Q Drum hold?

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3. How does the portable clay cooler work?

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4. What is one reason that people need Hayat Sindi's diagnostic tool?

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5. What is an example of how the solar Wi-Fi light can benefit people?

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**CT Focus**

**To rank items** in order, first decide on your *criteria* for ranking, e.g., how many people you think will be able to afford the item, or how many lives might be saved or improved.



**D | Critical Thinking: Ranking and Justifying.** Which of the innovations from pages 32–33 do you think is the most important? Which is the least important? Rank them 1–5, with 1 as the most important. Then talk with a partner and explain your choices.

- |                       |                            |                         |
|-----------------------|----------------------------|-------------------------|
| _____ Infant Warmer   | _____ Portable Clay Cooler | _____ Solar Wi-Fi Light |
| _____ Water Container | _____ Health Detector      |                         |



**E | Critical Thinking: Synthesizing.** Discuss this question in small groups: How is the clay cooler described in the reading similar to, and different from, the solar cooker shown in the video?

**GOAL:** In this lesson, you are going to plan, write, revise, and edit a paragraph. Your topic is:  
**Choose an innovation—one from this unit or one you have used yourself.**  
**Describe the need it filled and how it changed people's lives.**

- A** | Read the information in the box. Then use the simple past tense of the verbs in parentheses to complete the sentences (1–7).

### Language for Writing: Review of the Simple Past

We use the simple past tense to talk about events that began and ended in the past.

*According to historians, a man named Ts'ai Lun **invented** paper in China around AD 105.*

*Before that time, people **didn't have** inexpensive material to write on.*

*People **wrote** on things such as silk and clay, which **were** expensive and inconvenient.*

To form the simple past tense of *be*:

- use *was* or *were* to form affirmative statements.
- use *was not / wasn't* or *were not / weren't* to form negative statements.

To form the simple past tense with other verbs:

- add *-ed* to the end of most verbs to form affirmative statements.
- use *did not / didn't* with the base form of a main verb to form negative statements.

Some verbs have irregular past tense forms in affirmative statements:


*go—went    have—had    make—made    take—took    do—did    build—built*

For more explanation and examples, see page 215.

*Example:* In 2001, there was (*be*) a drought in Malawi and most people didn't have (*not / have*) enough food.

1. Most people in William Kamkwamba's village \_\_\_\_\_ (*not / have*) electricity.
2. William \_\_\_\_\_ (*go*) to the library.
3. He \_\_\_\_\_ (*find*) a book there called *Using Energy*.
4. William \_\_\_\_\_ (*use*) the information in the book and he \_\_\_\_\_ (*build*) a windmill.
5. When he \_\_\_\_\_ (*start*), people \_\_\_\_\_ (*not / believe*) that he could do it.
6. William \_\_\_\_\_ (*not / be*) worried. He \_\_\_\_\_ (*be*) confident.
7. After a while, he \_\_\_\_\_ (*be*) successful. His windmill \_\_\_\_\_ (*make*) electricity.

- B** | **Applying.** Write five sentences using the simple past tense. Describe things that people did not do 50 years ago, but that you do today.

-  **C | Brainstorming.** Brainstorm a list of innovations that you think are important. Use ideas from this unit or your own ideas.

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- D | Journal Writing.** Use your ideas from exercise **C** to write a response in your journal to the following question. Write for three minutes.

*Which innovations caused the biggest changes in people's lives?*

### Writing Skill: Supporting the Main Idea and Giving Details

Good paragraphs include supporting ideas that give information and details about the main idea. These sentences can give descriptions, reasons, or examples to help the reader clearly understand the main idea.

- E | Identifying Supporting Ideas.** Match each topic sentence with three supporting sentences. Write **A** or **B** for each one. Two sentences are extra.

**Topic Sentence A:** About 900 million people need access to safe drinking water, and a simple invention may be the answer to this problem.

**Topic Sentence B:** The solar-powered MightyLight is a safe and clean source of lighting that can provide light to millions of people around the world.

- \_\_\_\_\_ a. The LifeStraw provides instant clean water, saving lives during disasters.
- \_\_\_\_\_ b. You should drink about eight glasses of water a day.
- \_\_\_\_\_ c. The MightyLight is safer and cleaner than traditional kerosene lamps.
- \_\_\_\_\_ d. Each straw purifies about 160 gallons of water.
- \_\_\_\_\_ e. It's easy to carry, and you can hang it on a wall or place it on a tabletop.
- \_\_\_\_\_ f. Candles don't provide much light.
- \_\_\_\_\_ g. It also lasts longer—its LED technology is good for up to 30 years.
- \_\_\_\_\_ h. Thousands of LifeStraws were donated to Haiti after the 2010 earthquake.

- F |** Now use the sentences in exercise **E** to write two paragraphs.



# WRITING TASK: Drafting

**A | Planning.** Follow the steps to make notes for your paragraph. Don't write complete sentences. Pay attention to the content more than the grammar or spelling.

**Step 1:** From your brainstorming notes on page 36, choose an innovation to write about.

**Step 2:** Write a topic sentence that will introduce your paragraph.

**Step 3:** Look at your brainstorming notes again. Complete the chart.

## Outline

**Topic:** Choose an invention. What need did it fill, and how did it change people's lives?

**Topic Sentence**

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**Supporting Idea**

What is one way that the innovation changed people's lives?

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**Detail(s)**

*(one or two points)*

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**Supporting Idea**

What is another way that the innovation changed people's lives?

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**Detail(s)**

*(one or two points)*

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**B | Draft 1.** Use your notes to write a first draft of your paragraph.

**C** | **Analyzing.** The paragraphs below are on the topic of an innovation.

Which is the first draft? \_\_\_\_\_ Which is the revision? \_\_\_\_\_

**a** The car is one of the most important inventions in history. Before the car was invented, most people used horses to travel long distances, and they didn't travel very quickly. For example, a person on a horse could travel an average of 50–60 miles in a day. People traveling by horse and carriage could go 20–30 miles in a day. Because it was difficult to travel far, most people stayed in their own towns and villages their whole lives. Families stayed in the same place for generations. Now that we have cars, it only takes an hour to go 60 miles. Because it's so easy to travel long distances, people can work 60 miles away from home if they want to. And they can live almost anywhere they want. Because of the car, people have many more opportunities to shape their lives than they used to.


**b** The car is one of the most important inventions in history. The first real car factory opened in 1902. Before the car was invented, most people used horses to travel long distances, and they didn't travel very quickly. For example, a person on a horse could travel an average of 50–60 miles in a day. People traveling by horse and carriage could go 20–30 miles in a day. A horse can go up to 40 miles per hour, but it gets tired after just a few miles. If the horse goes more slowly, it can travel for a longer period of time without getting tired. Now that we have cars, it only takes an hour to go 60 miles. Because it's so easy to travel long distances, people can work 60 miles away from home if they want to. And they can live almost anywhere they want. Because of the car, people have many more opportunities to shape their lives than they used to.

 **D** | **Analyzing.** Work with a partner. Compare the paragraphs above by answering the following questions about each one.

	<b>a</b>	<b>b</b>
1. Does the paragraph have one main idea?	Y N	Y N
2. Does the topic sentence introduce the main idea?	Y N	Y N
3. Does the paragraph include 2–3 supporting ideas?	Y N	Y N
4. Does the paragraph include 1–2 details for each supporting idea?	Y N	Y N
5. Is there any information that doesn't belong?	Y N	Y N
6. Does the paragraph use the past tense correctly?	Y N	Y N

**E** | **Revising.** Answer the questions in exercise **D** about your own paragraph.

## WRITING TASK: Editing

 **F | Peer Evaluation.** Exchange your draft with a partner and follow these steps:

**Step 1** Read your partner's paragraph and tell him or her one thing that you liked about it.

**Step 2** Complete the chart below with information from your partner's paragraph.

**Topic Sentence** \_\_\_\_\_

**Supporting Idea** \_\_\_\_\_

What is one way that the innovation changed people's lives?

**Detail(s)** \_\_\_\_\_

(one or two points)

**Supporting Idea** \_\_\_\_\_

What is another way that the innovation changed people's lives?

**Detail(s)** \_\_\_\_\_

(one or two points)

**Step 3** Compare your chart with the chart your partner completed on page 37.

**Step 4** The two charts should be similar. If they aren't, discuss how they differ.

**G | Draft 2.** Write a second draft of your paragraph. Use what you learned from the peer evaluation activity, and your answers to exercise **E**. Make any other necessary changes.

**H | Editing Practice.** Read the information in the box. Then find and correct one simple past tense mistake in each of the sentences (1–5).

In sentences using the **simple past tense**, remember to:

- use the correct past tense forms of *be*: *was*, *wasn't*, *were*, and *weren't*.
- use the correct verb endings; for most verbs, you add *-ed* to form the simple past tense, but some verbs have irregular past tense forms.
- use the base form of the verb with *did not* / *didn't* in negative statements.

1. The people in William Kamkwamba's village wasn't confident about William's plan.
2. When they were young, the Wright brothers haved a flying toy.
3. Alexander Graham Bell make the first telephone.
4. The first car didn't went very fast.
5. Ts'ai Lun invented paper in the first century AD, but paper didn't be widely available until many years later.

I | **Editing Checklist.** Use the checklist to find errors in your second draft.

Editing Checklist	Yes	No
1. Are all the words spelled correctly?		
2. Is the first word of every sentence capitalized?		
3. Does every sentence end with the correct punctuation?		
4. Do your subjects and verbs agree?		
5. Did you use the simple present and simple past correctly?		

J | **Final Draft.** Now use your Editing Checklist to write a third draft of your paragraph. Make any other necessary changes.

## UNIT QUIZ

p.22

1. According to a U.K. survey, the wheel is the world's most \_\_\_\_\_.

p.24

2. Energy from the sun is called \_\_\_\_\_ power.

p.25

3. Windmills can create \_\_\_\_\_ and bring up \_\_\_\_\_ from under the ground.

p.28

4. Supporting sentences can \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

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5. A(n) \_\_\_\_\_ uses power from the sun to heat food for eating. It is also called a(n) \_\_\_\_\_.

p.30

6. A new thing or method of doing something is called a(n) \_\_\_\_\_.

p.33

7. Hayat Sindi's health detector is as small as a(n) \_\_\_\_\_.

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8. We use the \_\_\_\_\_ of a verb with *did not* / *didn't* to make a past tense negative statement.