A. What is your favorite ice cream flavor? Read the article from a textbook. How is ice cream today different from ice cream in the past?

---

**Ice Cream: A Food Revolution**

Science can have a great effect on society. Take ice cream, for example. Today, people all over the world, rich or poor, eat ice cream. Before there were modern refrigerators, however, ice cream was a luxury food.

The history of ice cream goes back to ancient times. In 400 BCE, Persians made a frozen dessert with noodles and fruit. There are early records of frozen milk and rice in China from around 200 BCE. In 618 CE, King Tang of Shang (China) ate frozen buffalo milk.

Before refrigeration existed, people needed ice to make frozen desserts. For example, in ancient Rome, people would go into the mountains and collect snow. They would bring it to the city and mix the snow with fruit. This was later called “sorbet.”

When an Italian duchess moved to France, she brought sorbet and other frozen desserts with her. After sorbet and ice cream became popular in France, they spread to the rest of Europe. However, only the rich ate them.

In the twentieth century, ice cream became easier to make and keep. After scientists found better processes for freezing things, ice cream became popular with all classes, rich and poor. Then, in the 1940s and 1950s, British chemists discovered a new way to make ice cream. They put air into it. This made the ice cream bigger and softer. Now, ice cream was less expensive. It lasted longer, too. As soon as ice cream became more available, people began to buy it more often.

Today, almost anyone, rich or poor, can buy ice cream and keep it at home. Ice cream is a universal dessert, popular all over the world. Together, traditional ice cream makers and scientists created a food revolution.

---

¹BCE: before common era ²duchess: a woman of very high social rank in some European countries
B  Comprehension Check  Circle the correct answer.
1. Persians made a frozen dessert with noodles / buffalo milk.
2. In ancient Rome, people mixed snow with fruit / cream.
3. A duchess brought sorbet to Italy / France.
4. British chemists invented ice cream that lasted longer / had no air in it.

C  Notice  Find the sentences in the article. Complete them with after, before, or as soon as.
1. ___________ refrigeration existed, people needed ice to make frozen desserts.
2. ___________ scientists found better processes for freezing things, ice cream became popular with all classes, rich and poor.
3. ___________ ice cream became more available, people began to buy it more often.

In each sentence, two events happen. Circle the event that happened first.

2  Time Clauses and the Order of Past Events

Grammar Presentation

| Time clauses can show the order of events in the past. | After scientists developed better processes for freezing things, ice cream became popular with everyone. |

2.1 Time Clauses

a. A time clause can come first in a sentence. When it comes first, use a comma after it.

A time clause can also come second in a sentence. No comma is needed.

b. Use after to introduce the first event.
2.1 Time Clauses (continued)

c. Use before to introduce the second event.

<table>
<thead>
<tr>
<th>SECOND EVENT</th>
<th>FIRST EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Before</em> there were freezers, people needed ice to make frozen desserts.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRST EVENT</th>
<th>SECOND EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>People needed ice to make frozen desserts <em>before</em> there were freezers.</td>
<td></td>
</tr>
</tbody>
</table>

d. Use when to refer to the time that something started.

<table>
<thead>
<tr>
<th>FIRST EVENT</th>
<th>SECOND EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>When</em> scientists found new ways to make ice cream, it became cheaper.</td>
<td></td>
</tr>
<tr>
<td><em>Ice cream became cheaper when</em> scientists found new ways to make it.</td>
<td></td>
</tr>
</tbody>
</table>

e. Use as soon as to refer to something that happened right after or immediately after.

<table>
<thead>
<tr>
<th>FIRST EVENT</th>
<th>SECOND EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>As soon as</em> scientists found ways to freeze things, people began buying more ice cream.</td>
<td></td>
</tr>
<tr>
<td>(Scientists invented ways to freeze things. Soon after, people started buying ice cream more often.)</td>
<td></td>
</tr>
</tbody>
</table>

f. Use until to refer to things that continued up to a certain time.

<table>
<thead>
<tr>
<th>FIRST EVENT</th>
<th>SECOND EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Until</em> people had refrigerators, it was difficult to keep food for a long time.</td>
<td></td>
</tr>
<tr>
<td>(Up to the time when people got refrigerators, it was difficult to keep food for a long time.)</td>
<td></td>
</tr>
</tbody>
</table>

Grammar Application

Exercise 2.1 Time Clauses

Read the sentences about Ernest Hamwi, the possible inventor of the ice cream cone. Label the first event 1, and the second event 2.

1. Until Ernest Hamwi invented the ice cream cone, most people ate ice cream in a dish.
2. Hamwi was a waffle seller at the 1904 World’s Fair when he invented the ice cream cone.
3. When an ice-cream seller at the fair ran out of dishes, Hamwi rolled up a waffle.
4. The warm waffle turned hard when Hamwi filled it with ice cream.
5. As soon as they saw Hamwi’s cones, all the other ice cream sellers started using them.
6. Before Hamwi started an ice cream cone business, he returned from the fair.
7. After Hamwi’s story became popular, many people said that *they* invented the ice cream cone.
8. Another man, Italo Marchiony, invented an edible ice cream *cup* before Hamwi invented his cone.
Exercise 2.2 Time Words

Complete the sentences. Circle the correct answer.

1. **Before**/After people drove cars, they rode horses.

2. **When**/Until the Internet became popular, people wrote letters and sent faxes.


4. **As soon as**/Before people used digital cameras, they took photographs using film.

5. Public transportation changed completely **until**/**when** the first airlines began to operate.

6. People did not understand the solar system **when**/**until** scientists invented telescopes.¹

7. **Before**/**As soon as** telephones existed, communication was very slow.

8. **As soon as**/**Until** scientists developed medicines such as vaccines,² public health improved rapidly.

¹telescope: a device you look through to make objects that are far away look bigger  
²vaccine: a special substance that you take into your body to prevent disease and that has a weak or dead form of the disease-causing organism

Exercise 2.3 Answering Questions with Time Clauses

We often answer information questions about time (e.g., *When . . .?*, *What time . . .?*, and *How long . . .?*) with time clauses. In conversation, these answers do not usually contain a main clause.

**Data from the Real World**

<table>
<thead>
<tr>
<th>A</th>
<th><strong>When did you start studying English?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td><strong>After</strong> I got my job at the museum.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A</th>
<th><strong>How long did you study at a community college?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td><strong>Until</strong> I got my degree.</td>
</tr>
</tbody>
</table>

A (**) Listen to a radio interview with an inventor of a new printer. Match the interview questions with the answers.

1. **When did you come to the United States?**
   - **d**
   - a. As soon as my first printer reached the stores.
   - b. After I graduated from college.
   - c. As soon as we got the money to start.
   - d. After I graduated from high school.
   - e. Until I got my degree.
   - f. When I was a student in college.
   - g. After I presented my idea to some banks and investors.

2. So, **when did you get the idea for your invention?**

3. And **how long did you study at college?**

4. **When did you build your first printer?**

5. And **when did you start your printer company?**

6. **So, when did you get the money for your company?**

7. **And when did the company start making a profit?**
Exercise 2.4 More Time Clauses

A Write sentences in the simple past about inventions and discoveries. Use an event in Column A, an event in Column B, and after, before, when, until, or as soon as.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TV / exist</td>
<td>people / start to fly more</td>
</tr>
<tr>
<td>2. cheap air travel / become possible</td>
<td>credit cards / become popular</td>
</tr>
<tr>
<td>3. everyone / have a cell phone</td>
<td>families / listen to the radio together</td>
</tr>
<tr>
<td>4. people / pay for things with cash or checks</td>
<td>millions of people / learn to drive</td>
</tr>
<tr>
<td>5. free education / be available</td>
<td>roads / become safer</td>
</tr>
<tr>
<td>6. traffic lights / come into our cities</td>
<td>people / buy food from small local stores</td>
</tr>
<tr>
<td>7. Ford / make the first mass-produced car</td>
<td>people / make calls from pay phones</td>
</tr>
<tr>
<td>8. the first supermarket / open</td>
<td>most people / not read or write</td>
</tr>
</tbody>
</table>

1. Before TV existed, families listened to the radio together.

B Pair Work Compare your sentences with a partner. How many different ways are there to say the same thing?

A I wrote, “Before free education was available, most people did not read or write.”

What did you write?

B I wrote, “Until free education was available, most people did not read or write.”

C Over to You Think of three more sentences like the ones in B. Use your own ideas and the words after, before, when, until, or as soon as. Share your sentences with a partner.

Before there were microwave ovens, it took a long time to heat up food.
3 Past with *Used To* and *Would*

**Grammar Presentation**

*Used to* and *would* describe repeated past actions, habits, and situations.

**Before we had the Internet, we used to go to the library a lot.**

**Before there was refrigeration, people would use ice to keep food cool.**

### 3.1 Statements with *Used To*

<table>
<thead>
<tr>
<th>AFFIRMATIVE</th>
<th>NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject</strong></td>
<td><strong>Used To</strong></td>
</tr>
<tr>
<td>I</td>
<td>used to listen</td>
</tr>
<tr>
<td>You</td>
<td>He / She / It</td>
</tr>
<tr>
<td>used to</td>
<td>listen</td>
</tr>
<tr>
<td>to the radio.</td>
<td>watched</td>
</tr>
</tbody>
</table>

**Data from the Real World**

Research shows that statements about the past with *didn’t use to* are not very common. Instead, you can use the negative form of the simple past.

*I didn’t watch a lot of TV when I was younger.*

### 3.2 Yes / No Questions and Short Answers with *Use To*

<table>
<thead>
<tr>
<th>Did</th>
<th>Subject</th>
<th>Use To</th>
<th>Base Form of Verb</th>
<th>Short Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did</td>
<td>I you he / she / it we they</td>
<td>use to keep</td>
<td>food cool with ice?</td>
<td></td>
</tr>
<tr>
<td>Yes, I did.</td>
<td>Yes, you did.</td>
<td>Yes, he / she / it did.</td>
<td>No, I didn’t.</td>
<td></td>
</tr>
<tr>
<td>Yes, they did.</td>
<td>Yes, we did.</td>
<td>No, we didn’t.</td>
<td>No, they didn’t.</td>
<td></td>
</tr>
</tbody>
</table>

**Data from the Real World**

Research shows that questions with *use to* are very rare. Instead, you can use questions with the simple past.

*In those days, did you keep food cool with ice?*
3.3 Information Questions with *Used To*

<table>
<thead>
<tr>
<th>Wh-Word</th>
<th>Did</th>
<th>Subject</th>
<th>Used To</th>
<th>Base Form of Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>When, Why, Where, How often</td>
<td>did</td>
<td>I, you, he/she/it, we, they</td>
<td>use to</td>
<td>keep</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>food cool with ice?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wh-Word</th>
<th>Used To</th>
<th>Base Form of Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who</td>
<td>used to</td>
<td>keep</td>
</tr>
<tr>
<td></td>
<td></td>
<td>food cool with ice?</td>
</tr>
</tbody>
</table>

3.4 Statements with *Would*

**AFFIRMATIVE**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Would</th>
<th>Base Form of Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past, I, you, he/she/it, we, they</td>
<td>would</td>
<td>build</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a fire to heat water.</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Would + Not</th>
<th>Base Form of Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past, I, you, he/she/it, we, they</td>
<td>would not wouldn’t</td>
<td>bathe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>often.</td>
</tr>
</tbody>
</table>

**Data from the Real World**

Research shows that statements about the past with *wouldn’t* are not very common. Instead, you can use the negative form of the simple past.

In the past, they didn’t bathe often.
3.5 Information Questions with Would

<table>
<thead>
<tr>
<th>Time Context</th>
<th>Wh- Word</th>
<th>Would</th>
<th>Subject</th>
<th>Base Form of Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past,</td>
<td>how</td>
<td>would</td>
<td>I</td>
<td>heat</td>
</tr>
<tr>
<td></td>
<td>where</td>
<td></td>
<td>you/ he/she/ it/ we/ they</td>
<td>the water?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Context</th>
<th>Wh- Word</th>
<th>Would</th>
<th>Base Form of Verb</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past,</td>
<td>who</td>
<td>would</td>
<td>heat</td>
<td>the water?</td>
</tr>
</tbody>
</table>

Data from the Real World

Research shows that Yes/No questions with would are very rare. Instead, you can use Yes/No questions with the simple past.

3.6 Using Used To

a. You can use used to for actions that happened regularly in the past. These actions do not happen now.

   My grandmother used to wash clothes by hand.

b. You can use used to for states that were true in the past. These states are not true anymore.

   Air travel used to be very expensive. It is less expensive now.

c. Do not use used to for things that happened only once.

   In the 1940s, chemists discovered a new way to make ice cream.
   In the 1940s, chemists used to discover a new way to make ice cream.

3.7 Using Would

a. You can use would for actions that happened regularly in the past.

   When my grandparents were children, they would listen to the radio every night.

b. Before you use would, first make the past time clear. Use a time expression, a simple past verb, or used to.

   In the old days, people would wash clothes by hand.
   They would hang them outside to dry.
   It used to be a day or more before the clothes would dry.

c. With stative verbs, use used to, not would, to talk about the past. Some examples of stative verbs are be, love, know, and want.

   We used to love to eat ice cream.
   We would love to eat ice cream.
   Ice cream used to be a luxury.
   Ice cream would be a luxury.
3.7 Using Would (continued)

d. Do not use would to talk about things that happened only once.

<table>
<thead>
<tr>
<th>Example</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Last week, Joe made green tea ice cream at home.</td>
</tr>
<tr>
<td></td>
<td>Last week, Joe would make green tea ice cream at home.</td>
</tr>
</tbody>
</table>

e. Use full forms in writing. Use contractions in speaking.

<table>
<thead>
<tr>
<th>Example</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In writing: We would sing songs or play games in the evening.</td>
</tr>
<tr>
<td></td>
<td>In speaking: We’d go to bed early.</td>
</tr>
</tbody>
</table>

Grammar Application

Exercise 3.1 Used To: Statements and Questions

A Complete the article. Use the correct form of use to or used to and the verbs in parentheses.

The Wisdom of Our Grandparents

_College Weekly_ spoke to Joseph Green, an 87-year-old retired teacher, about the old days.

_College Weekly_ What _did_ people _use to do_ (do) for fun before there was television?

_Joseph Green_ Well, we ________________

( listen) to the radio in the evening.

_CW_ How ________________ you ________________ (spend) your free time?

_JG_ Well, because there was no television, we ________________

( play) games a lot.

_CW_ Who ________________ (play) with you?

_JG_ My brothers.

_CW_ It seems like people ________________ (have) more free time in those days. . . .

_JG_ Not really. In fact, people ________________ (not have) a lot of free time. For example, my parents ________________

(work) six days a week.

_CW_ What was school like?
JG We ___________________________ (write) with pencils and paper. And when I was in college, we ______________________ (take) notes in real notebooks, not on notebook computers!

CW _______________________ you ______________________ (type) your papers?

JG No, I didn’t. Typewriters were too expensive. I ______________________ (write) all my papers in ink on lined paper. I ______________________ (get) so frustrated if I made a mistake because I had to start all over again!

B Write three affirmative sentences and one negative sentence about Mr. Green’s life before computers and TV. Compare your sentences with a partner.
1. ______________
2. ______________
3. ______________
4. ______________
5. ______________

Exercise 3.2 Would, Used To, or Simple Past?

Complete the article about life before electricity. Use used to or would and the verbs in parentheses, or use the simple past form of the verbs. Sometimes more than one answer is correct.

Alessandro Volta ____________ (invent) the first battery in 1800.

How ____________ people ____________ (live) in the days before electricity?

Most people ____________ (burn) oil lamps or candles for light. When it got cold, they ____________ (make) open fires to keep warm. People ____________ (not travel) long distances.

Most people only ____________ (visit) neighbors or nearby relatives.

Before Volta’s battery, many scientists ____________ (not think) that electricity was useful. And in the early days of electricity, some people ____________ (think) it was dangerous. They ____________ (be) afraid of it. Some people even ____________ (believe) that electricity had a bad effect on society. They
prefer (prefer) the simple life of the past. Soon, however, electricity make (make) the world brighter, faster, and more comfortable.

Electricity in homes and industry change (change) the world in many ways.

**Exercise 3.3 Would: Questions and Statements**

**A** Imagine that you can talk to a person who lived before there was electricity. Use the words to make questions with *would*. Then add two questions of your own with *would*.

1. how / heat / your house?
   *Before electricity, how would you heat your house?*

2. how / light / your house?

3. how / clean / your house?

4. what / do / in the evenings?

5. what / play / with?

6. how / get / to work or school?

7. 

8. 

**B Over to You** Now write answers with *would* to the questions. Use your imagination. When you finish, compare your answers with a partner.

*We would build a fire to heat our house.*

**C Group Work** Discuss how people used to live before the following inventions changed society. Was life better or worse? Was it safer or more dangerous? In what ways?

- computers  
- cars  
- airplanes  
- cold medicine  
- microwave ovens  
- TV

A *Before computers existed, students used to write everything down with a pencil or pen.*

B *And they would copy everything again when they revised their papers.*

C *Student life was hard!*
4 Avoid Common Mistakes

1. Use a subject in the time clause.
   
   Before they invented electricity, people used candles.

2. Do not forget the -d in used to in affirmative statements.
   
   When I was living in New York, I used to play in a rock band.

3. Use use to (without -d) in negative statements and in questions with did.
   
   How did you use to heat your home?

Editing Task

Find and correct six more mistakes in this article from a magazine.

A New Invention

How did people use to wash dishes? People did not use to have dishwashers before invented electricity, so they would wash dishes by hand. But did men and women use to share the dishwashing equally? Not usually. Mostly it was women who did it.

Before there was electricity, women use to heat up water on the stove and use it for washing dishes. It took hours and hours, and dishes often broke or chipped.

In 1886, one woman finally got tired of washing dishes by hand. “If nobody else is going to invent a dishwashing machine,” she said, “I’ll do it myself.” Her name was Josephine Cochrane, a housewife and engineer’s daughter who was tired of washing – and sometimes breaking – her favorite dishes after dinner parties. Cochrane worked and worked on her invention until 1893 when finally created a machine that washed dishes. She showed the machine at the World’s Fair that year. People operated it by hand, so it was still hard work. After the fair ended, she started a company to make the machines. When first tried to sell dishwashers, only restaurants and hotels bought them from her. However, after electricity became more easily available, her company built electric dishwashers for people to use in their homes. Today, homes around the world have electric dishwashers.
Grammar for Writing

Using Past with Used To and Would

Writers use used to and would in texts where the past is contrasted with the present. Remember:

- **Use time clauses to explain the order of events.**
  
  Before there were computers, students wrote their papers with pens.

- **Use would or used to to talk about things people did regularly.**
  
  When people wanted to listen to music, they used to put a cassette into a cassette player. Now, they listen on MP3 players.

Pre-writing Task

1. Read the paragraph below. Underline the past forms. **Double underline** the present forms.

   **Life Before Cell Phones**

   Because of cell phones, our lives are very different than they used to be. Today, when we want to talk to someone, we can call them anytime. Before we had cell phones, however, we had to wait until we were at home. In addition, before there were cell phones, we did not know who called us. Now, we always know because cell phones show the caller’s number or name. Another change is that parents expect to be in contact with their children more often. Before I had a cell phone, my parents would not call me very frequently. After I purchased one, they used to call me many times a day. They would always ask me, “Where are you?” Sometimes, I would not answer my phone. This used to make my parents very angry! They would threaten to take the phone away, but they never did. I am glad that things are different today, but cell phones do not make everything easier.

2. Read the paragraph again and circle all the time clauses.
Writing Task

1 Write Use the paragraph in the Pre-writing Task to help you write about something that used to be different. How is life now? How was life different before? Use past forms, used to and would, and time clauses. You can write about one of these things or use your own ideas.
   • the Internet
   • social networking sites
   • MP3 players
   • Internet dating
   • text messages
   • air travel

2 Self-Edit Use the editing tips to improve your paragraph. Make any necessary changes.
   1. Did you check that you used the past forms of your verbs correctly?
   2. Did you use used to and would?
   3. Did you use time phrases and time clauses?
   4. Did you avoid the mistakes in the Avoid Common Mistakes chart on page 65?