

click®

It's About Time

Rock around the clock with this issue of CLICK and help your students learn how we mark the passage of time. Students will study star charts and seasonal changes as well as traditional tools, such as clocks and calendars.

CONVERSATION QUESTION

How do we measure time?

TEACHING OBJECTIVES

- Students will learn about the basic units of time on a clock.
- Students will learn how calendars were created to measure larger periods of time.
- Students will learn how different animals prepare for winter.
- Students will plan and carry out investigations.
- Students will describe patterns.
- Students will collect evidence from a science-based text.
- Students will practice reading and displaying time on an analog clock.
- Students will keep a journal to note what they do on different days of the week.
- Students will work cooperatively to create murals depicting animals that migrate and hibernate.



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- **It's Time**
Expository Nonfiction, ~550L
- **Calendars**
Expository Nonfiction, ~850L
- **Time for Winter**
Expository Nonfiction, ~450L

It's Time

pp. 8–11, Expository Nonfiction

98...99...100! Ready or not, here I come! Students will read about the basic fixed units of time and learn how time can be relative.



OBJECTIVES

- Students will learn about the basic units of time on a clock.
- Students will plan and carry out investigations.
- Students will practice reading and displaying time on an analog clock.

KEY VOCABULARY

- **second (p. 8)** the shortest unit of time in a day; a small part of a minute
- **minute (p. 9)** sixty seconds; a small part of an hour
- **hour (p. 10)** sixty minutes; the longest unit of time in a day

ENGAGE

Conversation Question: How do we measure time?

Motivate students to learn about time by giving them the power to “freeze it.” Assemble the class in an open space and explain the rules of freeze tag. Allow the students a reasonable amount of time to play and then introduce the article.

INTRODUCE VOCABULARY

Display the vocabulary words and read aloud the words and definitions. Then ask students whether it would take seconds, minutes, or hours to complete each of these activities: sneeze, brush your teeth, watch a movie. Discuss other activities that take seconds, minutes, or hours. Remind students to look and listen for these words in the article.

READ & DISCUSS

Have students listen carefully as you read the article aloud. Then reread the article, pausing when answers to these questions are revealed:

1. What is the shortest bit of time that most people measure?
2. When does a minute feel like a short time? When does it feel like a long time?
3. What is something you can do in an hour?
4. What does the long hand on a clock count?
5. What does the short hand on a clock count?
6. What does the third hand on a clock count?

SKILL FOCUS: Investigating Time

INSTRUCT: Remind students that the article tells about seconds, minutes, and hours. Review the definitions of these words. Then display a three-column chart with the headings “Second,” “Minute,” “Hour.” Ask students to name things they could do in a second, such as sneeze, blink, or turn a page. Add accurate responses to the chart and discuss responses that are not accurate. Follow the same procedure for the “Minute” and “Hour” columns.

ASSESS: Have students work in pairs to see how many times they can do an activity in a minute. Activities could include writing their name, tying a shoe, bouncing a ball, walking across the room. Have students record and share the results of their investigation.

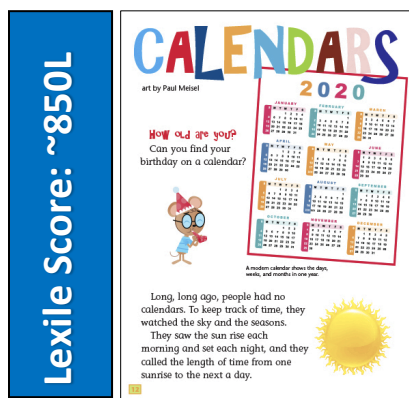
EXTEND

Mathematics Have students make clocks using paper plates, colored paper for the hands, and a paper fastener. Review the function of the minute and hour hands. Then have students display different times (to the hour or half hour) on their clocks as you say them aloud. Discuss activities that occur at specific times of the day. Have students show these times on their clocks.

Calendars

pp. 12–17, Expository Nonfiction

Students will learn how people long ago created calendars by watching the sky and tracking the patterns of the seasons.



ENGAGE

Conversation Question: How do we measure time?

Ask students to explain what a calendar is. Display a calendar and discuss the information it shows (months, days of week, etc.). Talk about how calendars are used in the classroom and at home. Explain that this article describes how the first calendars were created long ago.

INTRODUCE VOCABULARY

Display the vocabulary words and read aloud the words and definitions. Remind students that you just finished talking about calendars. Ask students to name their favorite season and explain why they like it. Then explain that most people have a morning pattern. Explain yours: wake up, brush teeth, make bed, eat breakfast. Ask student what makes these activities a pattern. (You do them every day.) Invite students to explain their morning patterns, then to find these words in the article.

RESOURCES

- Patterns Worksheet

OBJECTIVES

- Students will learn how calendars were created to measure larger periods of time.
- Students will describe patterns.
- Students will keep a journal to note what they do on different days of the week.

KEY VOCABULARY

- **calendar (p. 12)** a chart that shows the days, weeks, and months of the year
- **seasons (p. 12)** the four parts of the year: spring, summer, fall, winter
- **pattern (p. 13)** events that happen again and again in the same order

READ & DISCUSS

Have students listen carefully as you read the article aloud. Then reread the article, pausing when answers to these questions are revealed:

1. How did people keep track of time long ago?
2. What two things does the sun do every day?
3. How does the appearance of the moon change?
4. What does the sun do on the day called the winter solstice?
5. What does the sun do on the day called the summer solstice?
6. What order do the seasons happen in every year?

SKILL FOCUS: Describe Patterns

INSTRUCT: Review the definition of *pattern*. Remind students that the patterns described in the article repeat every day, every month, or every year. Point out that these patterns helped people create calendars. Reread the first page of the article. Ask students what the sun does every day. (rises and sets) Ask why this is a pattern. (because the actions repeat) Next, reread the first paragraph of page 13 and ask what the moon does every month. (grows big and then shrinks) Finally, read the second paragraph on page 13 and ask what the seasons do every year. (change from spring to summer to fall to winter)

ASSESS: Distribute the *Patterns* worksheet. Have students work in pairs to write and/or draw about patterns in the article.

EXTEND

Language Arts Have students keep a journal for one week to record events and activities that occur on the different days of the week. Instruct them to include school activities, sports practices/games, playdates, and family activities. Allow students to present their journals to the class. After each presentation, ask the class what they learned about their classmate through his or her journal.

Patterns

Name _____

What does the sun do every day?

What does the moon do every month?

What do the seasons do every year?

Click® Teacher Guide: November/December 2019

Time for Winter

pp. 23–26, Expository Nonfiction

Through text and bright photographs, this article explains to young readers how animals prepare for winter. Students will learn how some animals migrate while others hibernate.



RESOURCES

- Chilly Changes

OBJECTIVES

- Students will learn how different animals prepare for winter.
- Students will collect evidence from a science-based text.
- Students will work cooperatively to create murals depicting animals that migrate and hibernate.

KEY VOCABULARY

- **migrate (p. 23)** to go to a warmer region for the winter; some birds migrate to stay warm in winter
- **hibernate (p. 25)** to sleep for a long time; some animals hibernate in the winter

ENGAGE

Conversation Question: How do we measure time?

Ask students how they get ready for winter. Encourage them to consider changes in clothes and activities. Activate prior knowledge by guiding the discussion towards acknowledging seasonal changes in wildlife.

INTRODUCE VOCABULARY

Display the vocabulary words and read aloud the words and definitions. Brainstorm some animals that hibernate (bears, raccoons, snakes, turtles) and birds that migrate (hummingbirds, geese). Then discuss these questions: What would you rather be—a bird that migrates or an animal that hibernates? Why? After the discussion, remind students to look and listen for these words in the article.

READ & DISCUSS

Have students listen carefully as you read the article aloud. Then reread the article, pausing when answers to these questions are revealed:

1. How can animals tell when winter is coming?
2. What do animals do when winter is on its way?
3. Why do some animals migrate?
4. What does the dormouse do before it hibernates?
5. What kinds of bugs hibernate?
6. Do all hibernators sleep through the whole winter?

SKILL FOCUS: Collecting Evidence

INSTRUCT: Distribute the *Chilly Changes* graphic organizer to all students and go over the information in it. Use a think-aloud to model how to complete the chart: *The first animals are humpback whales. Do they migrate or hibernate? I read that humpback whales migrate, so I'm going to write that in the box. Are they sea animals or land animals? I know they live in the ocean, so they are sea animals. I'm going to write that in the second column.* Repeat this process with monarch butterflies, showing how to go back into the article to find information that tells whether they migrate or hibernate.

ASSESS: Have students work in pairs to complete their organizers. Discuss responses as a class and correct mistakes.

EXTEND

Art & Science Have students further explore how the animal world responds to winter. Divide the class into two groups. One group will research migration and one will research hibernation. Provide each group with a large sheet of mural paper and art supplies. Groups can use books, the internet, and this article to identify animals that belong on their mural. Display the murals in your science center or in the hallway and invite other classes to view them.

Chilly Changes

Name _____

Animals	Migrate or hibernate?	Land animal or sea animal?
humpback whales		
monarch butterflies		
leatherback turtles		
bumblebees		
groundhogs		
raccoons		
bears		
hedgehogs		
ladybugs		
caribou		
polar bears		