

# TIME



BRITANNICA **DISCOVERY** LIBRARY

## **About the pagination of this eBook**

Due to the unique page numbering scheme of this book, the electronic pagination of the eBook does not match the pagination of the printed version. To navigate the text, please use the electronic Table of Contents that appears alongside the eBook or the Search function.

For citation purposes, use the page numbers that appear in the text.

BRITANNICA  
**DISCOVERY**  
LIBRARY



# TIME

*In this book, you will:*

**learn** about telling time.

**discover** new words.

**answer** fun questions.

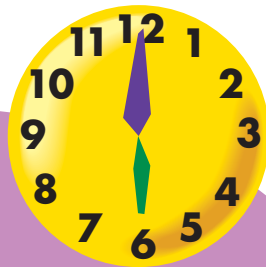
**play** a time-telling game.

**find** more time activities at the back of the book.

ENCYCLOPÆDIA  
**Britannica**<sup>®</sup>

CHICAGO LONDON NEW DELHI PARIS SEOUL SYDNEY TAIPEI TOKYO

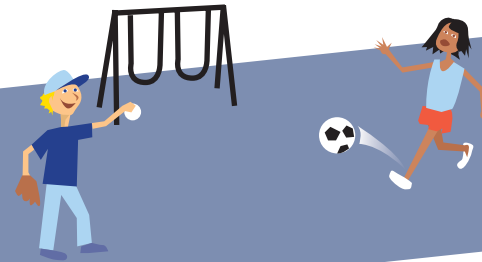
The sun rises.  
Time to get dressed!



Nap time



Breakfast time



Playtime

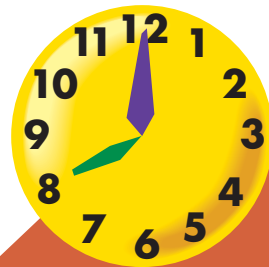
Time to go.



Dinnertime



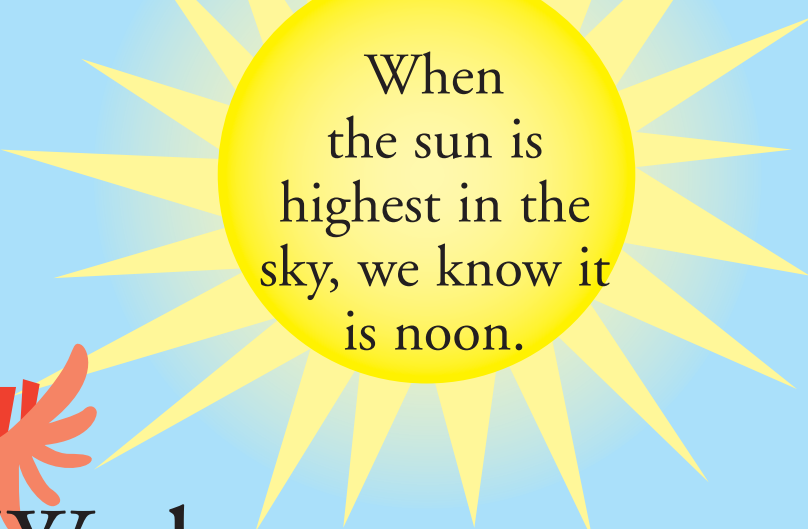
Lunchtime



At the end of the day,  
the sun goes down. Bedtime!

What are  
some  
important  
times in  
your day?

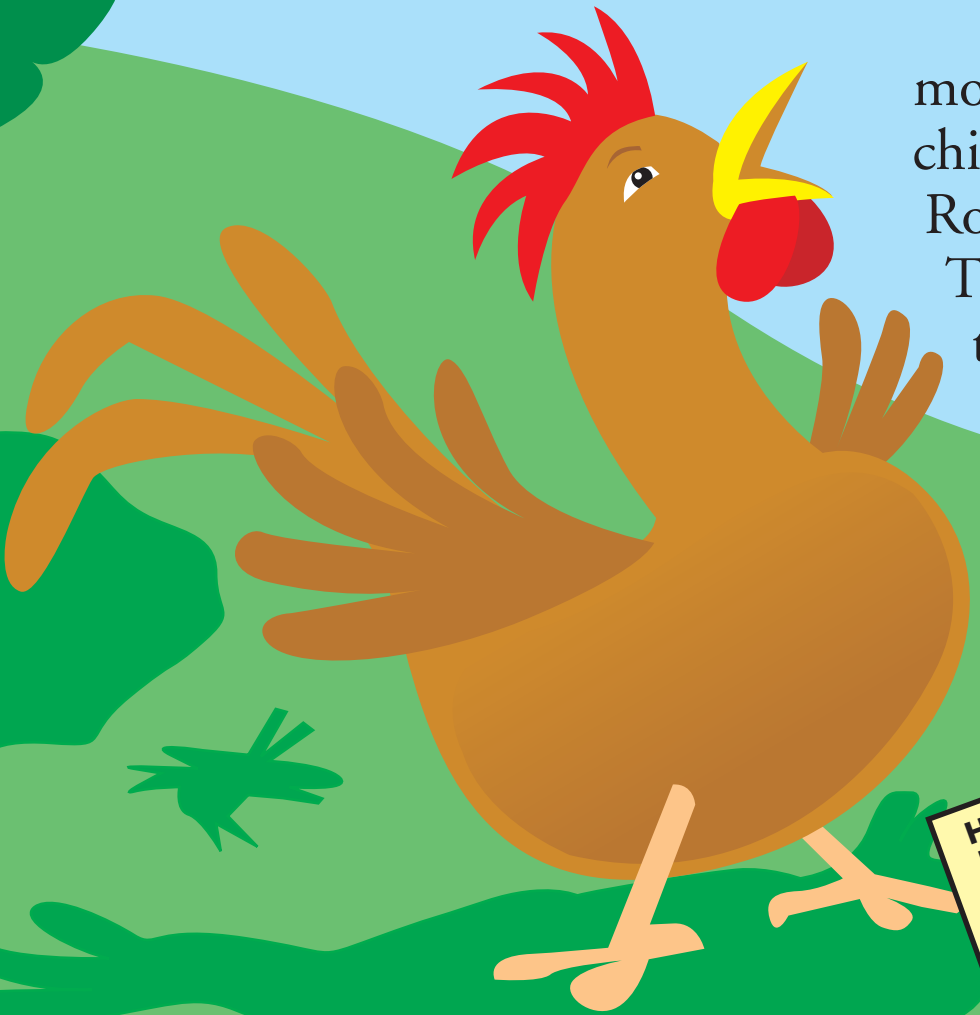
There is time for so many things in a day!



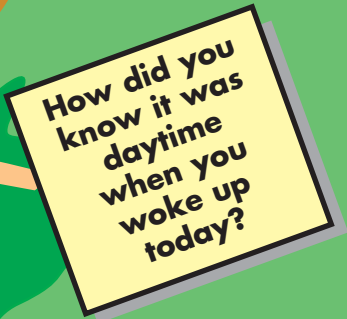
When  
the sun is  
highest in the  
sky, we know it  
is noon.



We have many ways



Early in the  
morning, birds  
chirp and sing.  
Roosters crow.  
These sounds  
tell us **dawn**  
has come.



How did you  
know it was  
daytime  
when you  
woke up  
today?



of telling what time it is.

Long shadows across the ground tell  
us it is late afternoon.



What things  
do you see  
that tell  
you it is  
afternoon?

We know it is nighttime when the sun goes down and the stars come out.



How did you know it was time to go to bed last night?



Did you see the moon last night? What did it look like?

One night you can look up in the sky and see the moon, bright and full. As the nights go by, the moon seems to grow smaller. After many nights, you cannot see it at all. Then it grows full again. This is another way we know time is passing.

The time between two full moons is about four weeks.





Long ago, people had many

In some parts of the world, people rang bells in the morning. This told everyone it was time to go to work.



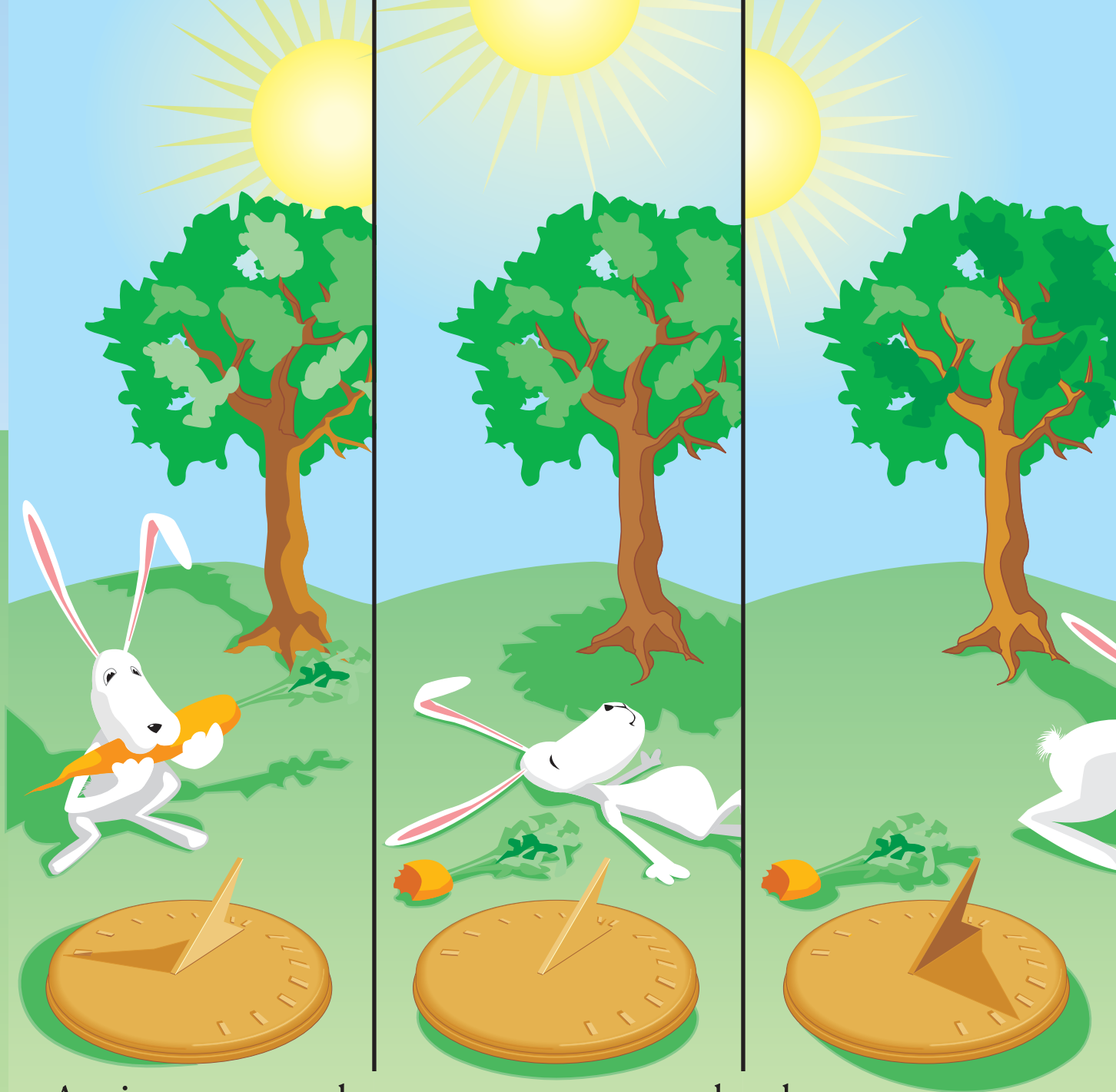
different ways of telling time.

In some villages, people gathered together when they heard the sound of beating drums. The drums meant it was time for an important meeting.

This is a sundial.

The **sundial** was one of the first ways of telling time.

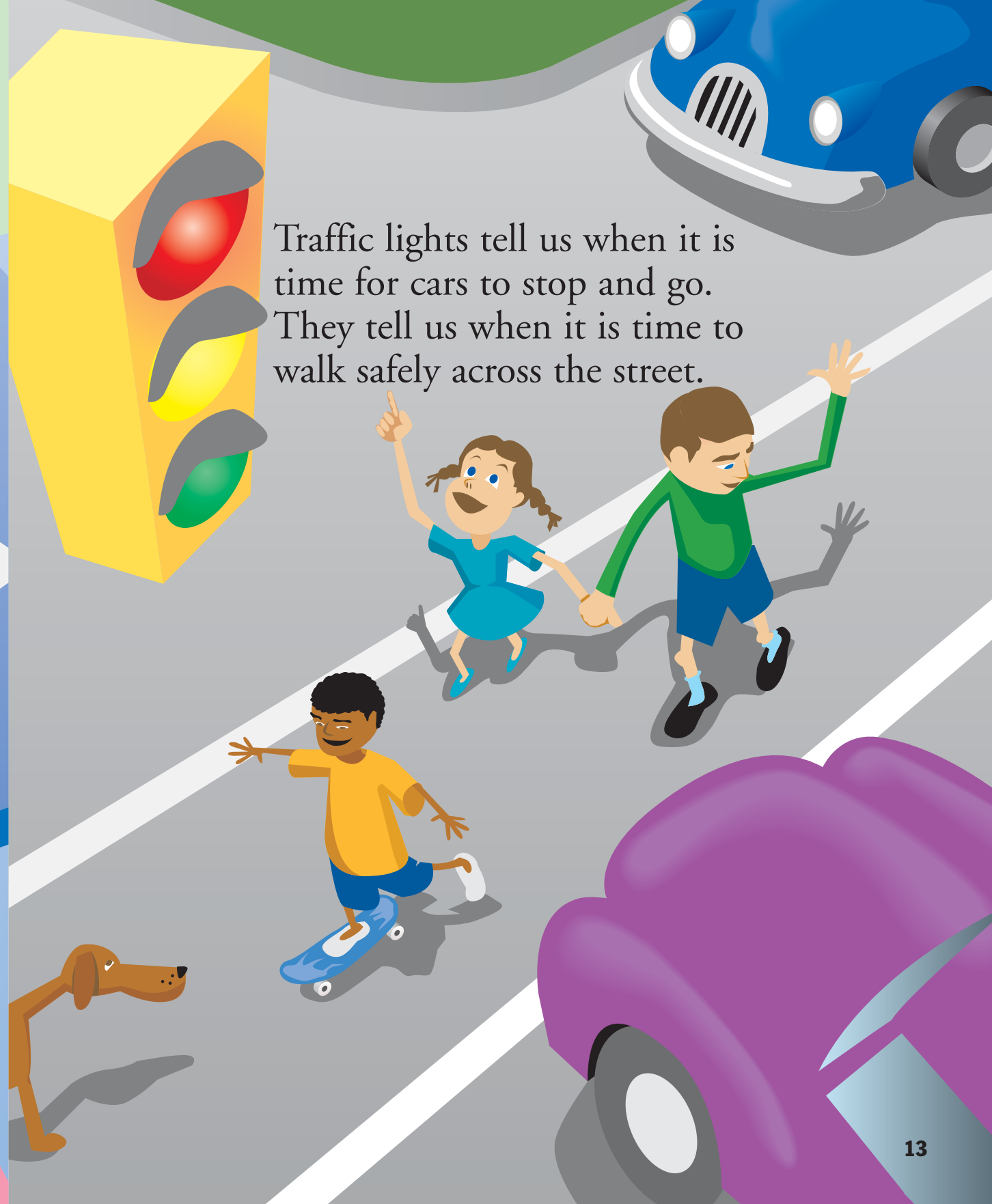
When the sun shines down on the sundial, the tall part of the sundial makes a shadow on the flat part.



As time passes, the sun moves across the sky. The shadow moves around the flat part of the sundial as the sun moves in the sky. By looking at where the shadow is, we know what time it is.



Today, many schools use bells to mark the time.  
The bell rings when it is time for class to begin.  
The bell rings again when class is over.

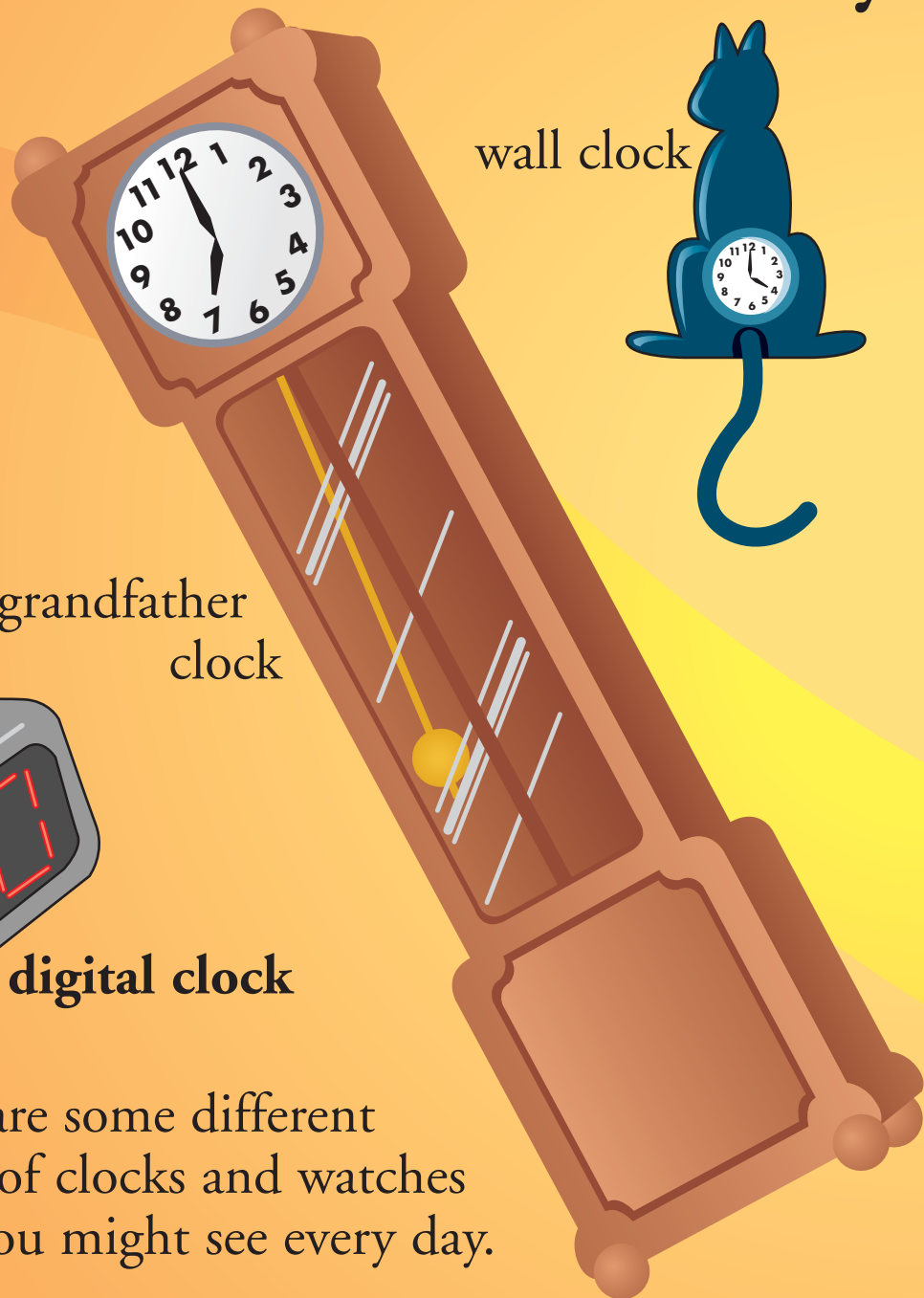


Traffic lights tell us when it is  
time for cars to stop and go.  
They tell us when it is time to  
walk safely across the street.

Most of the time, we use clocks and watches to tell us exactly what time it is.

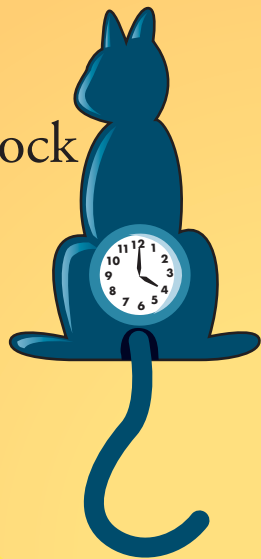


alarm clock



grandfather clock

wall clock



wristwatch



stopwatch

Tick-tock, tick-tock. The clock is always ticking away the time!



digital clock

Here are some different kinds of clocks and watches that you might see every day.

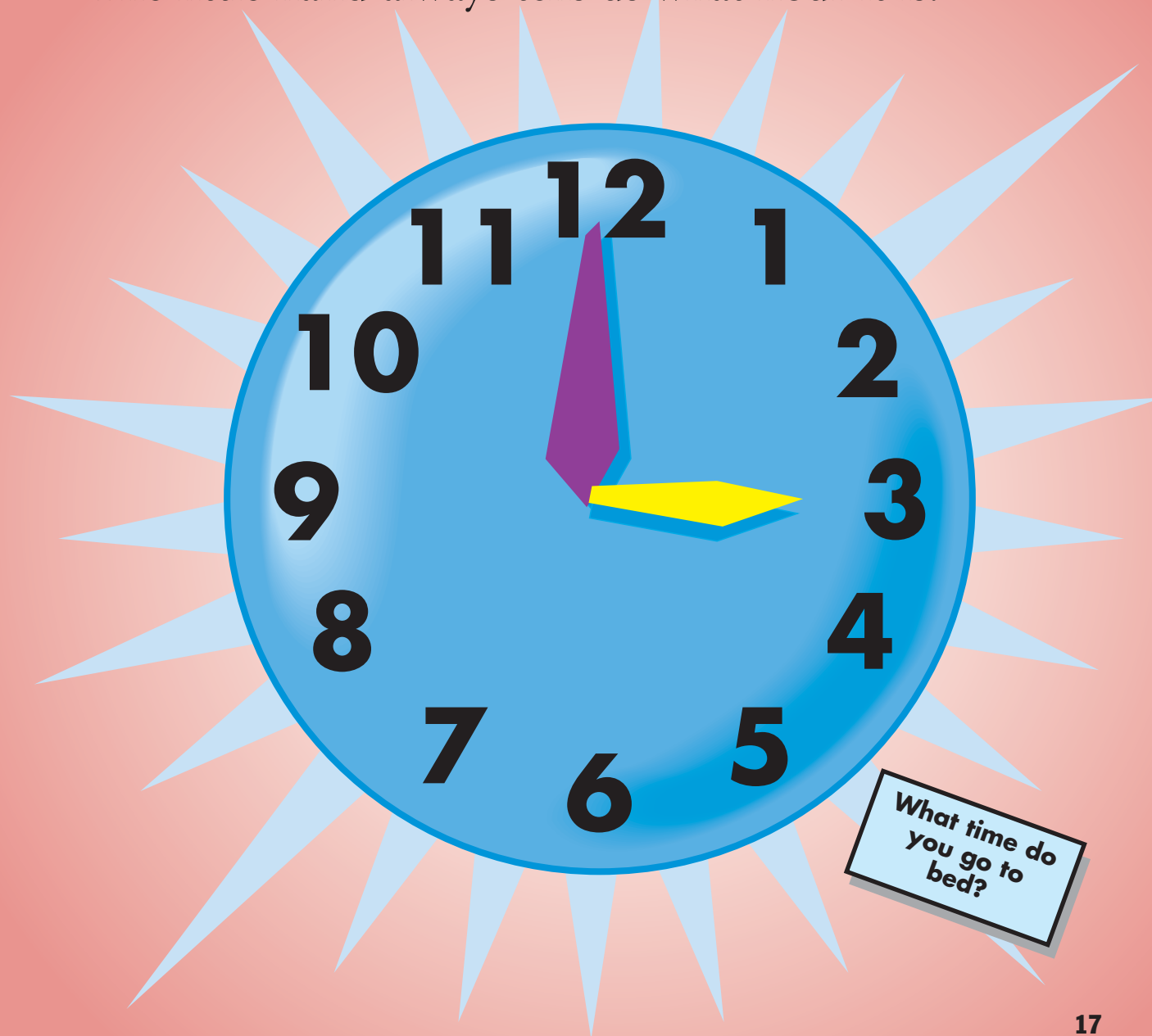


hourglass

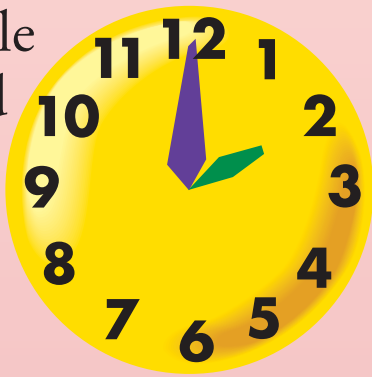
Here is a clock with a yellow face.  
The clock has two hands and twelve numbers.  
The little hand is red and the big hand is blue.



As time goes by, the hands on the clock move from number to number. On this clock, the big hand is pointing to 12. The little hand is pointing to 3. This means that the time is exactly 3 o'clock. The little hand always tells us what hour it is.



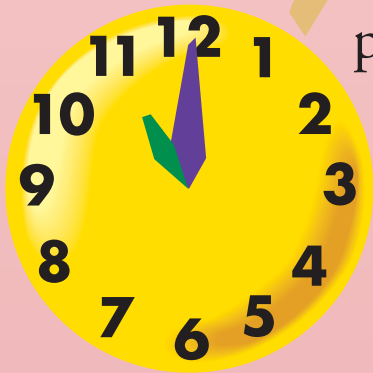
When the clock's little hand points to 2 and the big hand points to 12, it is exactly 2 o'clock.



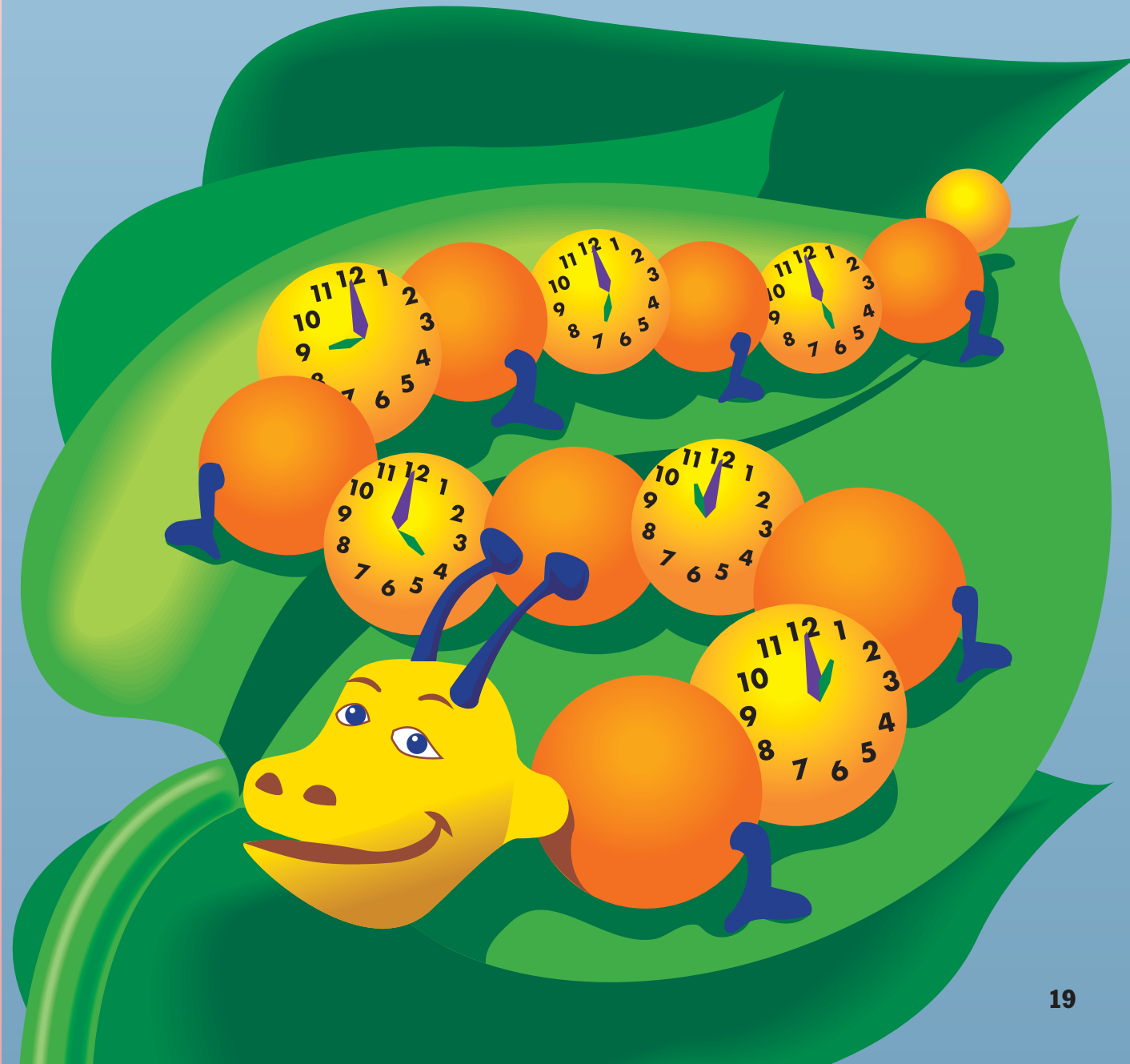
When the little hand points to 5 and the big hand points to 12, it is exactly 5 o'clock.



When the little hand points to 11 and the big hand points to 12, it is exactly 11 o'clock.

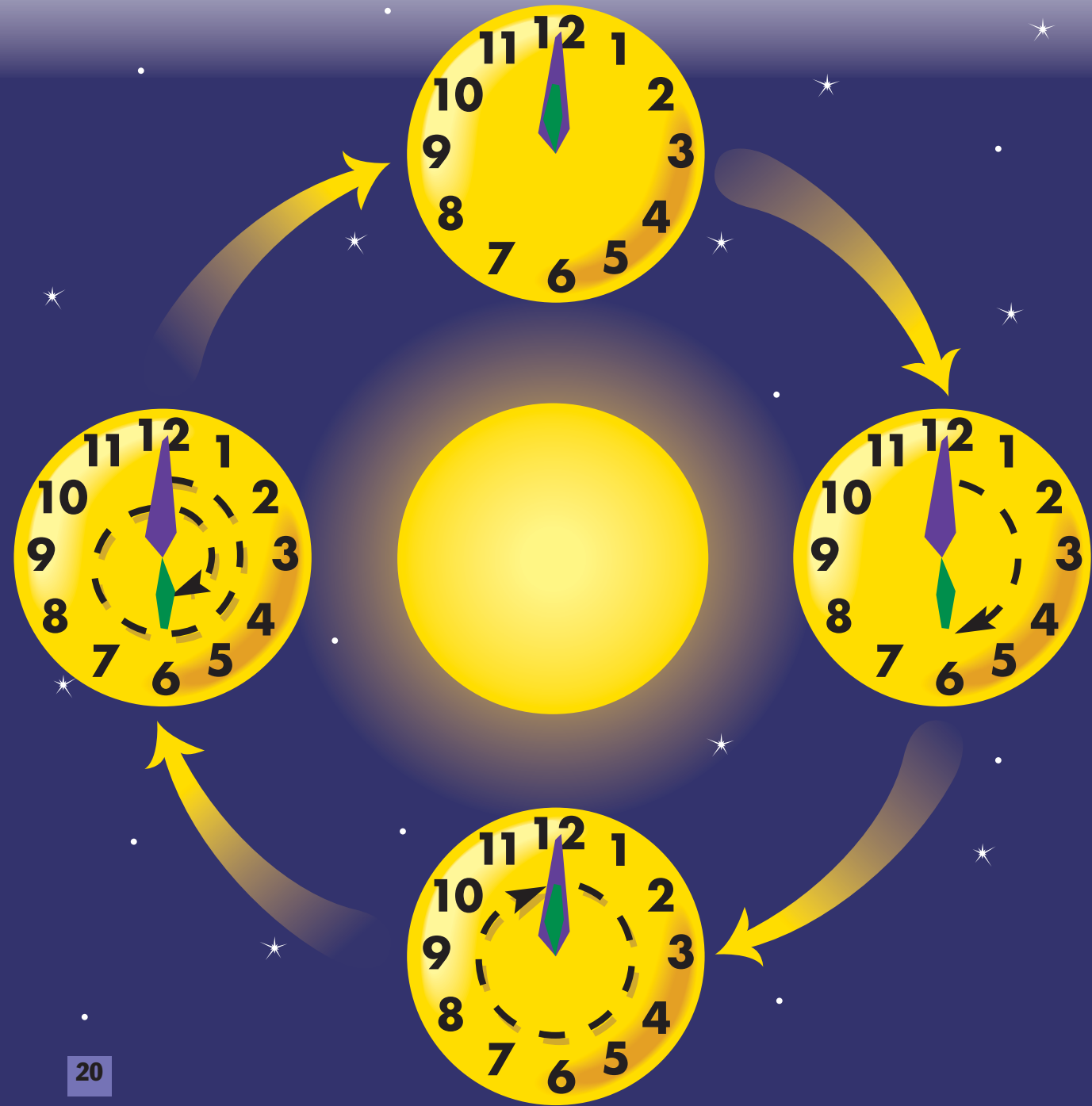


Now look at the clock faces below. See what numbers the big hand and the little hand are pointing to on each face. Can you tell what time it is on each clock?

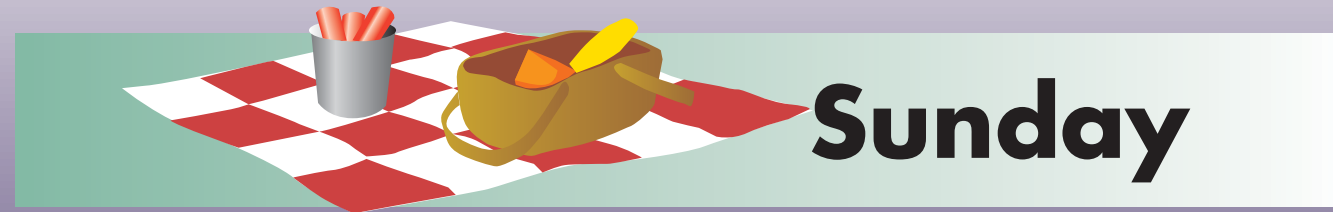




When the little hand starts at twelve and moves **twice** past all the numbers on the clock face, we know that a whole day and night have gone by. A new day begins!



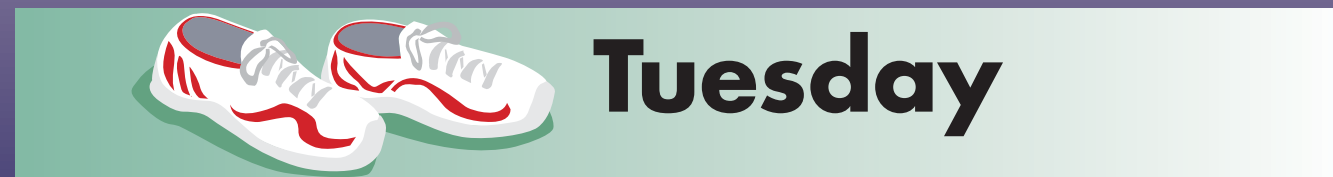
Every day of the week has a name.



**Sunday**



**Monday**



**Tuesday**



**Wednesday**



**Thursday**



**Friday**

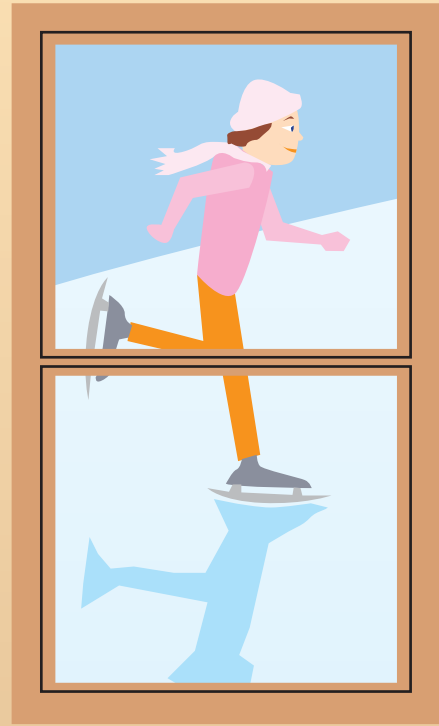


**Saturday**

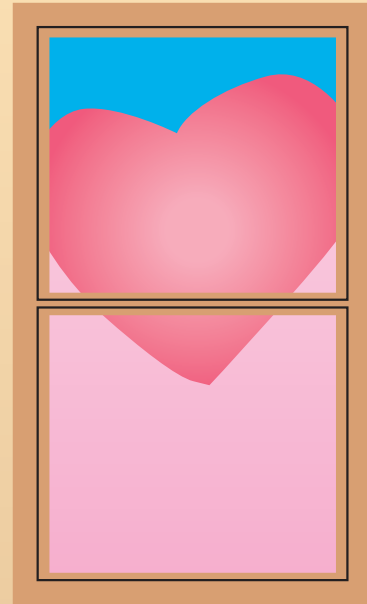
When all seven days have passed, a week has gone by.

What day of the week is it today?

There are about four weeks in every month. The months have names too.



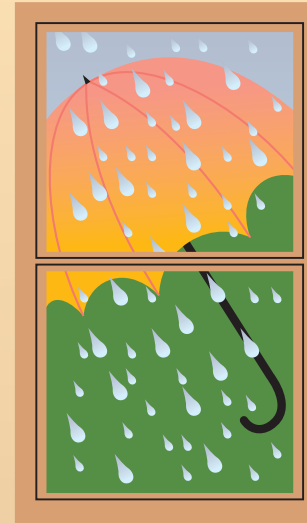
**January**



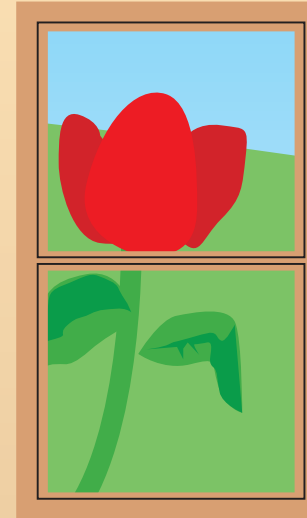
**February**



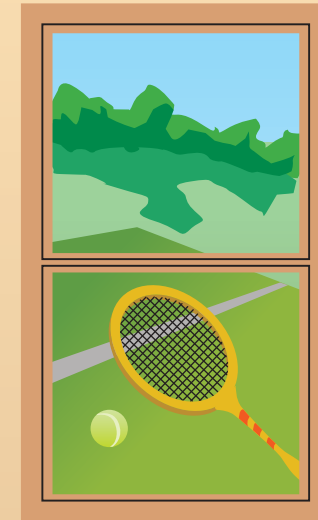
**March**



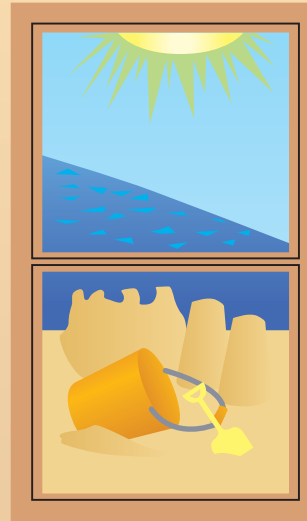
**April**



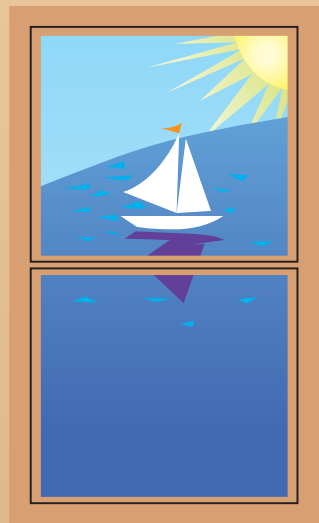
**May**



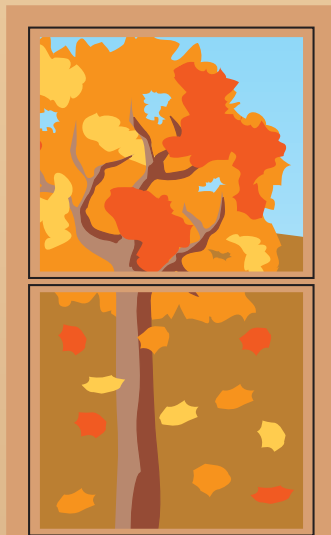
**June**



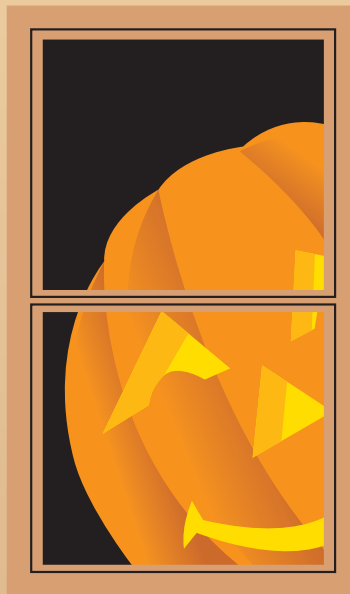
**July**



**August**



**September**



**October**



**November**



**December**

What is your favorite month? Why?

What month were you born?

When all twelve months have passed, a year has gone by. A year from now, you will be one year older.



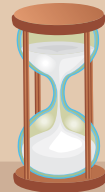
Calendars are another way for us to tell how much time is passing. The calendar shows us every month of the year. It shows us every day of each month too.

Calendars help us remember holidays, birthdays, and other important dates.

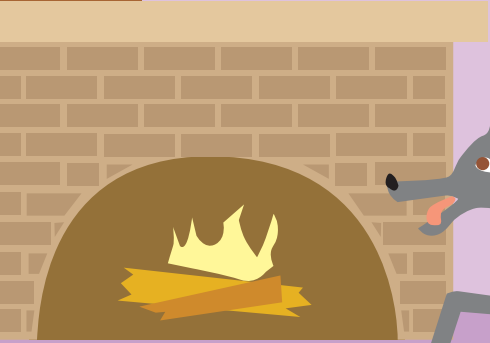
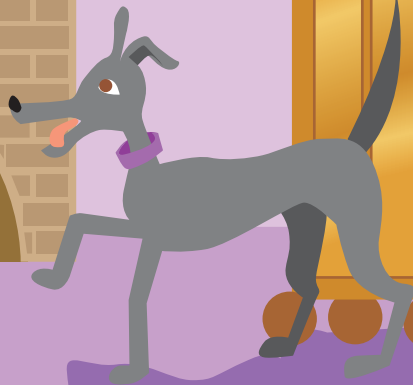
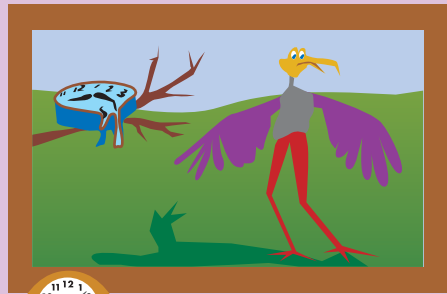
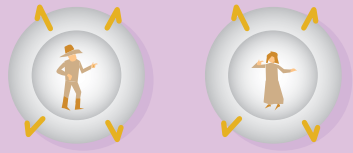


Where have you seen calendars in your house?

We have so many different ways of knowing how much time has gone by!



How many ways of telling time can you find in this picture?

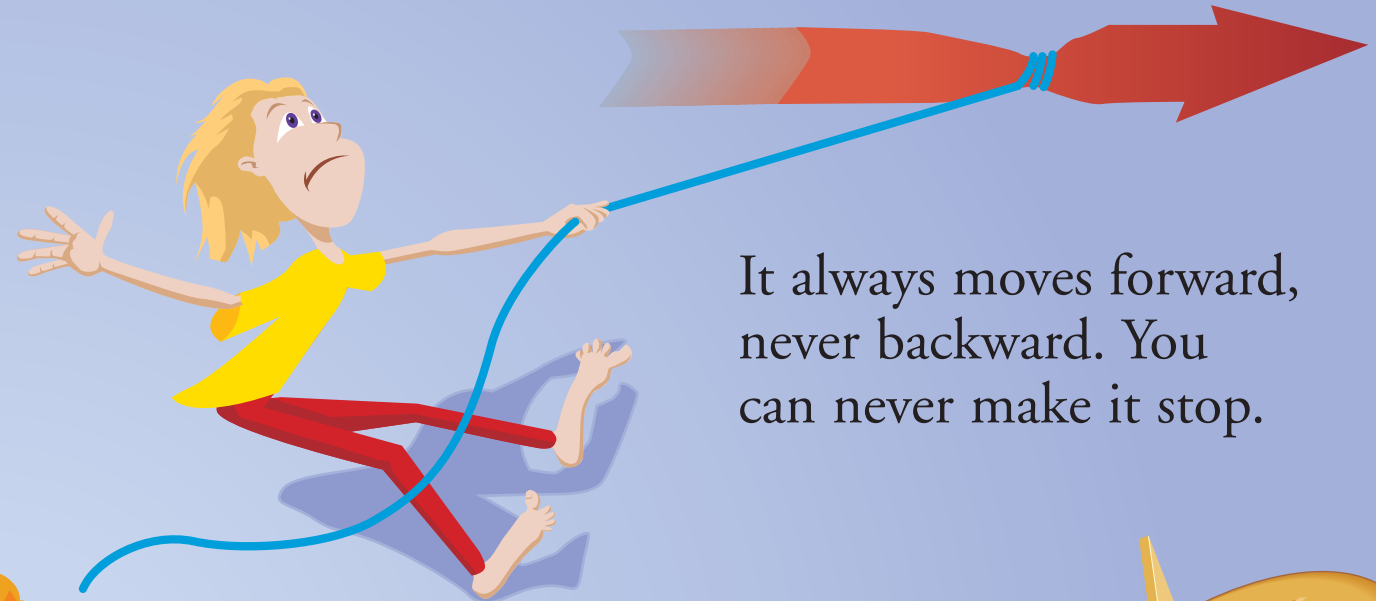


Here is a riddle.

You cannot see it  
or touch it, but  
without it, day  
would not turn  
into night.



It makes the seasons  
change. It makes you  
grow older.

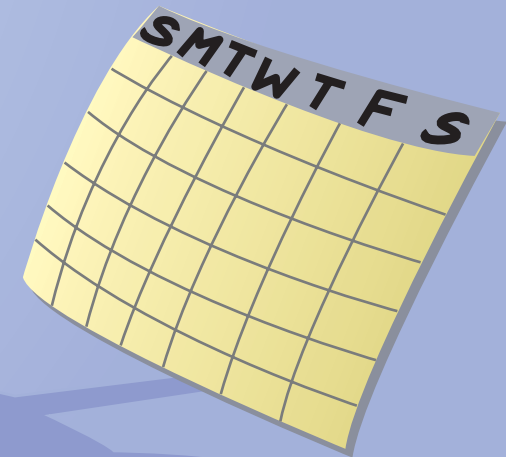
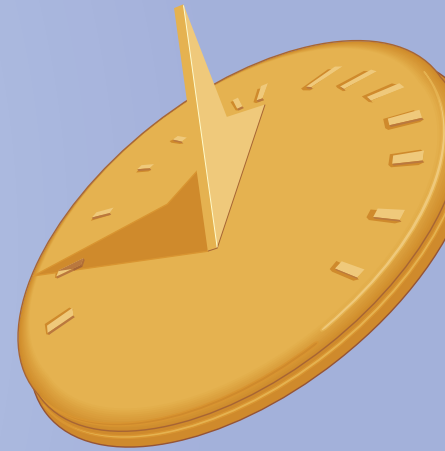


It always moves forward,  
never backward. You  
can never make it stop.

What is it?

**TIME!**

Minutes, hours, and days.  
Days, weeks, and months.  
Time is always passing!





# TIME GLOSSARY

**dawn** (dawn) the beginning of the day, when the sun rises and the world becomes light

**digital clock** (DIJ it uhl klok) a clock that shows the time in numbers instead of by hands or pointers that move around a clock face

**hourglass** (OUR glass) an instrument for measuring time that is made of glass, with two round compartments connected by a thin tube. Sand or water trickles from the top compartment to the bottom compartment in an hour's time.



**stopwatch** (stop wach) a watch that can be stopped or started in an instant, often used for timing races or other events

**sundial** (SUN dy uhl) an object that tells time by the position of a shadow made by the sun

**twice** (twys) two times

## Fun Ways to Learn about TIME

### How Long Is a Minute?

**1** You'll need a clock with a second hand or a stopwatch for this activity. Pick an activity that you would like to try to do for a whole minute—like hopping, drawing, singing. Then have a friend time you. Your friend should give you a "go!" signal to begin and say stop when exactly one minute has passed.

Were you able to do your activity for the whole minute? If not, how many seconds did you do it? Now, try again, doing a different activity, maybe swinging your arm back and forth. This time your friend will tell you when to start but won't tell you when the minute is up. Just stop doing your activity when you think one minute has passed. How close did you get?

### Clock Count

**2** How many ways of telling the time can you find in your own house? Count how many clocks you see in every room. (Don't forget digital clocks.) Do they all show the same time? What about other ways of telling time? Can you find an egg timer? A calendar? An alarm clock? An hourglass in a board game? A sundial? Which room in your house has the most ways of telling time?

### Paper Plate Clock Face

**3** Look at the clock faces on pages 16 and 17 of this book. Use them as examples to make your own clock. First get a plain colored paper plate. Write numbers on it around the edges, from 1 to 12, just like in the pictures on the

book pages. You can also decorate the paper plate if you want to. Use crayons, colored pens, and stickers to make your design.

Next, on a colorful piece of thick construction paper, draw two pointers, or hands, for the clock. The little hand will tell what hour it is. The big hand will show the minutes. Carefully cut out the clock hands, or have a grown-up cut them out for you. You will need a fastener to attach the ends of the pointing hands to the center of the clock face. An adult can buy small fasteners called "brads" at an office supply store. Stick a brad through the two hands and through the exact center of the paper plate, then fasten it on the other side.

Now you are ready to have fun telling time. Get together with a friend or family member and quiz each other. Ask, for example, "What time do you get up?" Have the other person show the answer on the clock. Take turns asking and answering time questions.





## Helping Children Get the Most out of the *TIME* Volume

Children begin to understand the concept of time, even before they can tell time, by understanding the relationship between events and time — for instance, you can point out the things that happen at the same time every day, or how long it takes to do something, such as bake cookies or drive to the park. Recognizing that things can come one after another prepares a child for later important tasks too, such as telling time, doing math, and reading. Throughout a day there are many opportunities to help children learn about the concept of time. The activities on the previous page are meant to further that understanding.

**How Long Is a Minute?** If you don't have a stopwatch, you'll need a clock with a second hand for this activity. Let the children pick what they want to do or suggest something, like hopping, drawing, humming, singing. Before beginning, let them watch the second hand sweep around once so that they can get a sense of how long a minute is. Another fun and easy way for children to guess when a minute is up is to have them simply raise their hand or close their eyes until they think a minute has gone by. No matter when they stop, tell them exactly how much time has passed.

**Clock Count.** Make a game out of hunting for timepieces around the house. You can accompany your younger children and give hints or point out timepieces they overlook. As an additional activity, you might ask an older child to make a list of how many timepieces are in each room, then add up the total. Before or after this activity, you can show them an analog and a digital clock and explain how they work. Looking at the two clocks side by side will help them grasp the difference.

**Paper Plate Clock Face.** If necessary, help your child put the clock parts together. It might also be a good idea to have an actual clock face on hand to use as a model while he or she is working on the project. While you and your child are assembling the clock, you can be reviewing the numbers on the clock face. As suggested in the activity directions on the previous page, asking time-related questions can help your child learn about telling time and the sequence of events while having fun at the same time.

Illustrations by Jerry A. Kraus.

© 2005, 2008 by Encyclopædia Britannica, Inc.

International Standard Book Number: 978-1-59339-823-1 (set)

International Standard Book Number: 978-1-59339-834-7 (volume 11)

No part of this work may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher. Printed in China.

Britannica Discovery Library:  
Volume 11: Time 2005, 2008

Britannica.com may be accessed on the Internet at <http://www.britannica.com>.

Encyclopædia Britannica, Britannica, and the Thistle logo are registered trademarks of Encyclopædia Britannica, Inc.



BRITANNICA  
**DISCOVERY**  
LIBRARY

- 1** Me
- 2** Me and You
- 3** People and Places
- 4** The World Around Us
- 5** Animals
- 6** Colors
- 7** Shapes
- 8** Sounds
- 9** Words
- 10** Numbers
- 11** Time
- 12** Just For Fun



ENCYCLOPEDIA  
**Britannica**<sup>®</sup>

[www.britannica.com](http://www.britannica.com)