

Suggested Internet Resources

Periodically, Internet Resources are updated on our Web site at www.LibraryVideo.com

- mathforum.org/
"Math Forum," sponsored by Drexel University, contains a wealth of information about math for students and teachers. Students can tackle the "Problem of the Week," or send a question to Dr. Math. Teachers can find lots of helpful resources for teaching math, including lesson plans.
- www.harcourtschool.com/glossary/math_advantage/index.html
This multimedia math glossary offers illustrations and definitions for many mathematical concepts, individualized for grades 1 through 8.
- www.fi.edu/time/Journey/JustInTime/contents.html
"Just In Time," sponsored by the Franklin Institute, presents interactive activities, lesson plans and printable game cards and worksheets about telling time.

Suggested Print Resources

- Appelt, Kathi. *Bats Around the Clock*. HarperCollins, New York, NY; 2000. This fun story about dancing bats offers students a rhyming verse to help them learn how to tell time.
- Hutchens, Pat. *Clocks and More Clocks*. Aladdin Books, New York, NY; 1994. Read this fictional story about Mr. Higgins who has many clocks all keeping different time!
- Older, Jules. *Telling Time: How to Tell Time on Digital and Analog Clocks!* Charlesbridge, Watertown, MA; 2000.

TEACHER'S GUIDE

Kristen Lovett Casel, M.S.

Curriculum Coordinator, Schlessinger Media

TITLES

- | | | |
|-----------------------|-----------------------------|------------------|
| • Addition | • Gathering & Graphing Data | • Multiplication |
| • Decimals & Percents | • Geometry | • Number Sense |
| • Division | • Measurement | • Subtraction |
| • Fractions | • Money | • Telling Time |
-

Teacher's Guides Included
and Available Online at:



800-843-3620



Teacher's Guide and Program Copyright 2004 by Schlessinger Media,
a division of Library Video Company

P.O. Box 580, Wynnewood, PA 19096 • 800-843-3620

Executive Producer: Andrew Schlessinger

Program produced and directed by Stone House Productions, LLC

All rights reserved.

K8562
V7092



Telling Time

Grades K-4

We use math in everything we do, from catching a movie at the local theater to shopping at the grocery store! Because math is an important aspect of our everyday lives, it's crucial that students are fluent in mathematical thinking and communicating. In our ever-changing world, it's not enough for students to be able to perform calculations. Students need to be challenged to solve problems in creative ways, using various approaches. Enhancing students' mathematical understanding can help to unlock the secrets of the world around them.



Introduction

Need to catch the school bus on time? Want to make the movie before the previews start? Then you'd better learn how to tell time! Time is a kind of measurement that tells us how long. Students can learn to tell time using a variety of time-measurement tools, including digital clocks, analog clocks, stopwatches and calendars. In addition to actually telling time using these tools, students also need to be challenged to solve problems involving the passage of time. Students' time-telling skills will only improve as time passes!

Vocabulary

time — A measurement of how long.

second — A unit of time.

minute — A unit of time. There are 60 seconds in one minute.

hour — A unit of time. There are 60 minutes in one hour.

day — A unit of time. There are 24 hours in one day.

week — A unit of time. There are seven days in one week.

year — A unit of time. There are 52 weeks in one year.

clock — A tool used to measure time in seconds, minutes and hours.

face — The front of the clock that has numbers around the outside.

clockwise — The direction in which the hands of a clock move.

minute hand — The big hand on the clock that tells the minutes.

hour hand — The little hand on the clock that tells the hours.

A.M. — An abbreviation that tells you if a time is between midnight and noon.

P.M. — An abbreviation that tells you if a time is between noon and midnight.

calendar — A tool used to measure time in days, weeks, months and years.

Pre-viewing Discussion

- Discuss what students do at different times of the day. When do they get up in the morning? When do they get home from school? When do they go to bed at night?
- Discuss the passage of time. Which activities in students' days take the longest amount of time? Which take the shortest amount of time?
- Words like *before* and *after* can help students to sequence events. With your class, make a list of activities that take place in the classroom on a daily basis. Encourage students to place these events in order based upon when they occur. Does math occur before or after lunch? Is art before or after recess?

Follow-up Discussion

- Encourage students to discuss why it's useful to be able to tell time accurately. Have students present situations in which a small error in telling time might be very significant. Can they think of situations in which it's okay to estimate a time?

(Continued)

- Discuss various units of time with your class. Brainstorm a list of what they feel they could accomplish in a certain unit of time. What could they do in a second? In a minute? In an hour? In a day?
- Have a class discussion about why it's important to label a time with A.M. or P.M. What could happen if you didn't label the time (e.g., I'll meet you at 7)?

Follow-up Activities

- Make paper plate analog clocks with construction paper hands. Connect the hands with brass fasteners so that they are moveable. Digital clocks can also be made with four loops of paper numbered 0-9 that can slide to show the sequence of digits as time passes, and tagboard rectangles with the ":" holding the loops. Students can use these clocks to practice telling time.
- Play "time bingo" with your students. In preparation, make game cards for each student with a variety of times listed. When you're ready to play, show a certain time on a large teaching clock. If students have that time written on their game card, they can cover it with a counter. Keep playing until someone gets bingo! (See www.educationworld.com/a_lesson/03/lp312-02.shtml for a printable game card.)
- Share *The Grouchy Ladybug* by Eric Carle (HarperCollins, 1996) with your students. Discuss what the ladybug does at various times of the day. Encourage students to keep a log of what they do at different times during the day. When they make an entry to their log, they should draw what the clock looks like at that time, in addition to recording the actual time.
- Share some time poems with your students (see the following Web site for examples: www.canteach.ca/elementary/songspoems71.html). Encourage students to write their own poems about time. Illustrate them and hang them in the classroom for all to share!
- How much can students do in one minute? Encourage students to make estimates of how many times they can jump rope, say the alphabet, hop on one leg or other similar activities in the span of one minute. Then they can use stopwatches to verify their estimates.
- Water clocks were some of the earliest tools used to mark time. Students can make their own water clocks. See the following Web site for directions: www.cbc.ca/kids/general/the-lab/do-it-yourself/9803/experiment1/demo.html. After you've made your water clocks, discuss how accurate they are, compared with an analog or digital clock.
- Familiarize your class with telling time using a calendar by marking everyone's birthday on a class calendar. Then students can solve problems involving the passage of time, by figuring out how many days, weeks or months are between certain students' birthdays.
- Bring in multiple television or movie schedules. In pairs, students can figure out the length of each of the programs. Students can also write their own word problems using the schedules, and give them to other groups to solve.