TIME ZONES

US Map, Clocks, Travel - Grades 6-8

48 PAGES




My name _____ Date _____

Clocks Across the Map

Read each clock. Write the time.

All six clocks show the same moment, one clock for each zone. Read each clock. Write its time in the box.

A simplified drawing. Zone borders are approximate and the Great Lakes are not shown.

Eastern | Central | Mountain | Pacific | Alaska | Hawaii-Aleutian

7 Which zone's clock shows the earliest time? Write its letter. ☐

8 How many hours behind Eastern is the Pacific clock? ☐ hours

Time Zones – Clocks Across the Map

Bright Path Sped

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This is a fillable PDF

- Open it in a PDF reader (Adobe Acrobat Reader, Preview, or your browser), click into a line or a box, type, and Save As.
- The name line, every answer box, every ruled work box, every check box and every table cell on the student pages are type-in fields, and so are the tracker, class grid, team note and family page. You can also print any page and write by hand.
- It works offline. No account, no subscription, no internet connection needed after you download it.

Print at 100 percent

Turn off fit to page and shrink to fit so the ruled lines stay 0.34 inch apart. Every student page is readable in black and white inside a colored border, so it still reads when copied in black and white. The zone map is colored, and every zone is also named on the page.

Student work

A filled-in tracker, class grid or team note carries a real student's name. Keep it in the data folder, and use a first name only on any page that leaves your hands.

Need help?

If a field will not behave or a page will not print the way you expect, use Ask a Question on the product page. Every question is read, and a fix ships as a free update.

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PREVIEW

How To Read a Page

The parts of a student page, then the page types in the order they come.

The parts of a page

- **The answer box.** A bordered box for a letter, a number or a time. Click it to type, or print and write in it.
- **The ruled work box.** Lines 0.34 inch apart; a short answer gets 4 lines. It types and prints.
- **The check box.** True or false, lose or gain, yes or not yet: click or mark one.
- **The zone map.** A simplified drawing made for this file: borders are approximate, and each zone has its own color and name.
- **The clocks.** Analog faces with a short hour hand and a long minute hand.
- **The cut line.** Six pieces in a 3 by 2 grid, each 2.4 by 1.25 inches, edge to edge: two cuts across and two down.

Page type	What it looks like	What the student does
Before You Read, Words to Know	2 pages, 12 items	True or false on the big idea; match eight words to their meanings.
5 Readings	10 checks	Read, write the main idea, answer two checks with a letter.
Map and clocks	4 pages, 16 items	Color six zones, name the zone of eight cities, read and draw clocks.
Ahead and behind	4 pages, 44 items	Change the time between zones, plan calls and a meeting.
Travel	2 pages, 12 items	Add flight time, change zones, and find how long a trip took.
Daylight and date line	4 pages, 28 items	Spring forward and fall back, summer clock check, UTC and the date line, degrees to hours.
Write, Quiz, Cut and Paste	6 questions, 12 items, 18 pieces	Short answers, a claim-evidence-reasoning page, a two-part quiz and three cut-and-paste mats.

Untimed, unscored on the page

No student page has a timer or a score. The answer keys are on pages 35 to 39.

A short account, not a full textbook

Each reading is a summary in plain words, not a full geography course, and it is not tied to any standard. Which places change their clocks can change, so check a current source for a real trip.

Printing and the type-in fields

Every page prints clean in black and white. The name line, every answer box, every ruled box, every check box and every table cell are type-in fields in any PDF reader: click one, type, then save. This is a fillable PDF, not a slideshow or a word-processor file.

Open answers

Short answers, the coloring page, the draw-the-hands page and the call page are open. The keys give a sample. Accept any answer that is true to the readings.

PREVIEW

My name _____ Date _____



Before You Read

Read the big idea. Then check true or false.

It can be morning where you are and afternoon somewhere else. Time zones are how the world keeps its clocks in order.

The word	A time zone is a region where everyone uses the same clock time. The Earth has about 24 of them.
The idea	The Earth turns once in about twenty-four hours. When it is day in one place, it is night on the other side.
The tools	Look at a clock. Look at a map. Count the zones, and add or subtract hours.



Try it. Is each sentence true or false?

1. The Earth makes one full turn about every twenty-four hours. ☐ true ☐ false

2. The sun is overhead everywhere at the same moment. ☐ true ☐ false

3. There are about 24 time zones around the world. ☐ true ☐ false

4. When you travel west, you set your clock ahead one hour. ☐ true ☐ false

In your own words: what is a time zone?

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

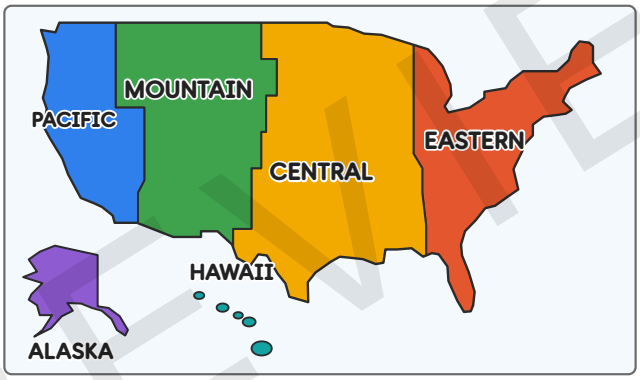


Reading: Six Zones in the United States

Read the page. Write the main idea. Then answer.

Which zones does the United States use?

The United States has six time zones. From east to west they are Eastern, Central, Mountain, Pacific, Alaska and Hawaii-Aleutian. When it is 12:00 noon in New York City, in the Eastern zone, it is 11:00 a.m. in Chicago, in the Central zone. It is 10:00 a.m. in Denver, in the Mountain zone, and 9:00 a.m. in Los Angeles, in the Pacific zone. In winter, Alaska is four hours behind Eastern and Hawaii is five hours behind. Zone borders are not straight lines. They follow state and county lines so that neighbors share one clock. Moving west, the time goes back. Moving east, the time goes ahead.



A simplified drawing. Zone borders are approximate and the Great Lakes are not shown.

Main idea: What is this page about?

Check what you read. Write the letter in the box.

1. When it is 12:00 noon in New York City, what time is it in Denver?
   - **A** 10:00 a.m.
   - **B** 11:00 a.m.
   - **C** 1:00 p.m.

2. When you move west into the next zone, what happens to the clock?
   - **A** It goes ahead one hour
   - **B** It goes back one hour
   - **C** It stays the same

PREVIEW

Preview - Bright Path Shed

My name _____ Date _____

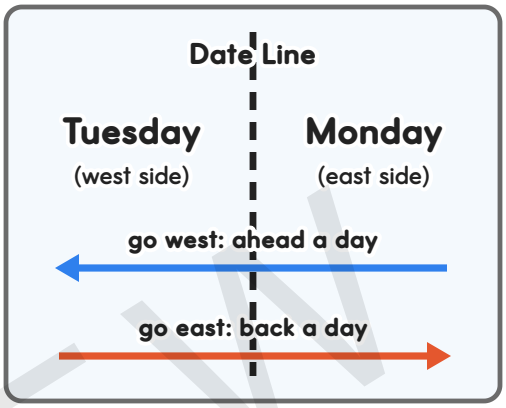
Reading: The International Date Line



Read the page. Write the main idea. Then answer.

Where does a new day begin?

The Earth has to start a new calendar day somewhere. People agreed to place that spot in the middle of the Pacific Ocean, near the line of longitude at 180 degrees. It is called the International Date Line. It is not straight. It bends around islands and countries so that neighbors share the same date. A traveler who crosses it going west moves the calendar ahead one day. A traveler who crosses it going east moves the calendar back one day. Two places just across the line from each other show the same clock time, but they are one calendar day apart.



Main idea: What is this page about?

Fact: Write one fact from the reading that you want to remember.

Check what you read. Write the letter in the box.

1. A traveler crosses the date line going west. What happens to the calendar? ☐
   - **A** It moves ahead one day
   - **B** It moves back one day
   - **C** It stays the same

2. The International Date Line is near which line of longitude? ☐
   - **A** 0 degrees
   - **B** 90 degrees
   - **C** 180 degrees

PREVIEW

Preview - Bright Path Shop

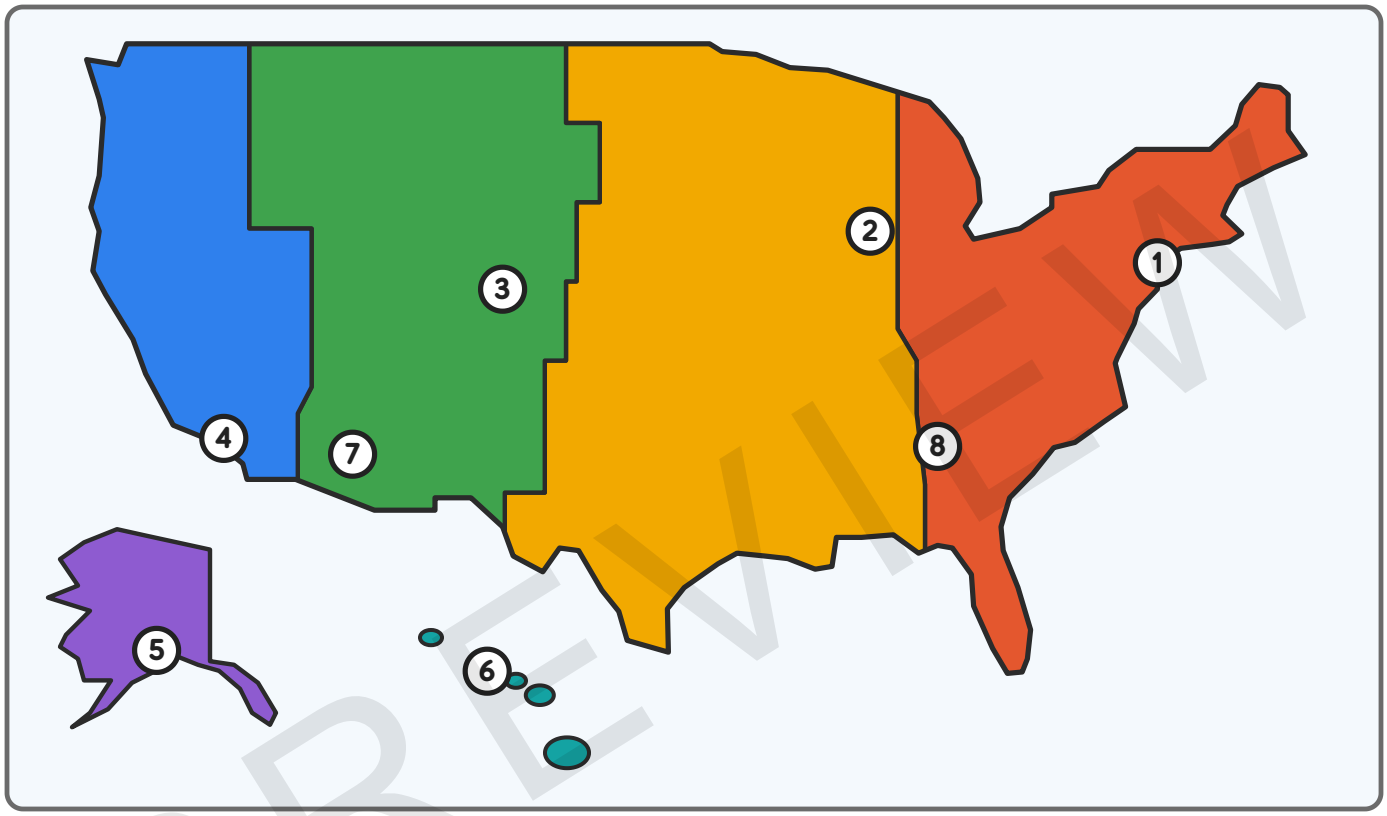
My name _____ Date _____



Name the Zone

Find each city. Write the letter of its zone.

E Eastern C Central M Mountain P Pacific A Alaska H Hawaii-Aleutian



A simplified drawing. Zone borders are approximate. The numbered circles are cities.

1 New York		2 Chicago	
3 Denver		4 Los Angeles	
5 Anchorage		6 Honolulu	
7 Phoenix		8 Atlanta	

Which city was hardest to place? How did you decide?

PREVIEW

Preview - Bright Ezee Store

My name _____ Date _____

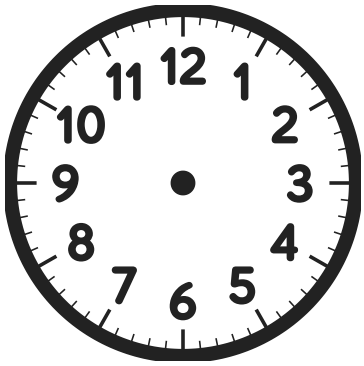


Draw the Hands

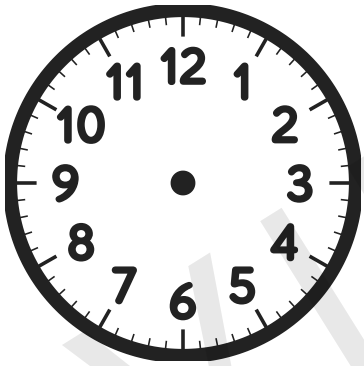
Draw the hands on each clock.

The short hand shows the hour. The long hand shows the minutes. Draw both hands on each clock.

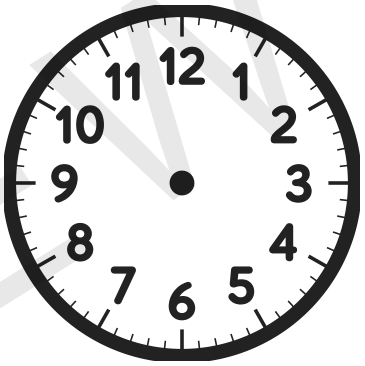
1. 2:30 a.m.



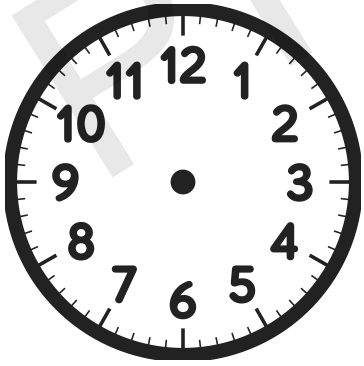
2. 4:15 p.m.



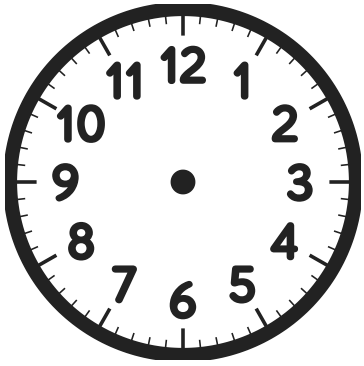
3. 7:45 a.m.



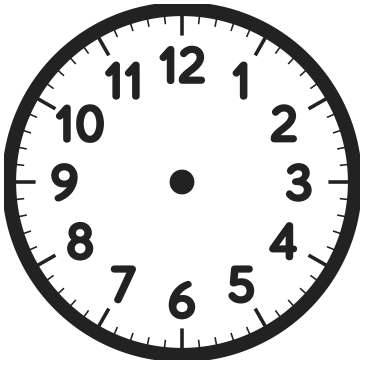
4. 10:00 p.m.



5. 12:30 p.m.



6. 9:20 a.m.



How do you know the short hand is for the hour?

PREVIEW

My name _____ Date _____

Schedule the Call



Read each story. Write the time for the other person.

Each person lives in a different zone. Change the time for the other person. Use the work box if it helps.

1. Owen lives in Boston. His grandfather lives in Denver. Owen wants to call at 7:00 p.m. Boston time. What time is it in Denver then?

2. Jada lives in Seattle. Her aunt lives in Chicago. Jada calls at 4:30 p.m. her time. What time is it for her aunt?

3. Lena lives in Dallas. Her pen pal lives in Honolulu. Lena wants to video chat at 4:00 p.m. Dallas time. What time is it in Honolulu?

4. Mateo lives in Atlanta. A store in Los Angeles closes at 5:00 p.m. Los Angeles time. What time is that in Atlanta?

5. Ruby lives in Denver. Her cousin in New York wakes up at 7:00 a.m. New York time. What time is it in Denver then?

6. Sam lives in Anchorage. A show starts at 8:00 p.m. Eastern time. What time does it start in Anchorage?

PREVIEW

My name _____ Date _____

Can They Talk?



Write your claim, evidence and reasoning.



Dev gets home in Seattle



Ana goes to bed in Boston

Question: Dev lives in Seattle. His cousin Ana lives in Boston and goes to bed at 9:00 p.m. Boston time. Dev gets home at 6:30 p.m. Seattle time. Can they talk after Dev gets home?

Change one time to the other zone. Then decide.

I believe that Dev ____ talk after he gets home.

Seattle is in the ____ zone and Boston is in the ____ zone. This shows that ____ because ____.

Claim: Can Dev and Ana talk after he gets home?

Evidence: What are the two times? What is Dev's time in Boston?

Reasoning: Explain how your evidence proves your claim.

PREVIEW

My name _____ Date _____

Spring Forward, Fall Back

Change each clock. Write the new time.

The clock shows the time before the change. Write the time after the change.

1



Spring forward: add 1 hour

2



Fall back: subtract 1 hour

3



Spring forward: add 1 hour

4



Fall back: subtract 1 hour

5



Spring forward: add 1 hour

6



Fall back: subtract 1 hour

7 In spring, you spring forward. Do you lose an hour or gain an hour? ☐ **lose** ☐ **gain**

8 In fall, you fall back. Do you lose an hour or gain an hour? ☐ **lose** ☐ **gain**

How can you remember which way to change the clock?

PREVIEW

Preview - Bright Path Shed

My name _____ Date _____



From Degrees to Hours

Use 15 degrees for each hour. Write each answer.

360 degrees divided by twenty-four hours is 15 degrees for each hour. West of the prime meridian the clock is behind UTC. East of it, the clock is ahead.

1. The Earth turns 360 degrees in twenty-four hours. How many degrees does it turn in one hour? ☐ **degrees**

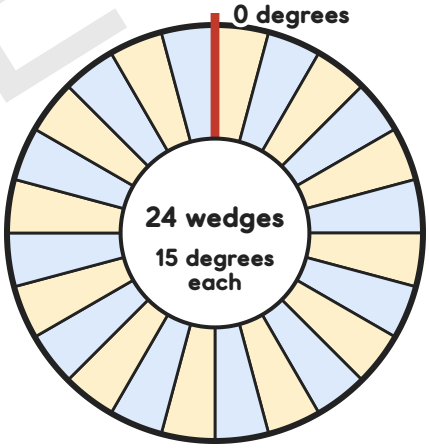
2. A place is 30 degrees west of the prime meridian. How many hours behind UTC is it? ☐ **hours**

3. A place is 75 degrees west of the prime meridian. How many hours behind UTC is it? ☐ **hours**

4. A place is 120 degrees west of the prime meridian. How many hours behind UTC is it? ☐ **hours**

5. A place is 45 degrees east of the prime meridian. How many hours ahead of UTC is it? ☐ **hours**

6. It is 12:00 noon UTC. What time is it at 90 degrees west? ☐



Each wedge is 15 degrees. A day has twenty-four hours.

A place is 60 degrees west of the prime meridian. How many hours behind UTC is it? Show how.

PREVIEW

My name _____ Date _____

Think It Through B

Answer each question in full sentences.

Use what you learned from the readings to answer.

4 What does it mean to spring forward and fall back? Why do some places do it?

5 Two places on opposite sides of the date line show the same clock time. Why are they on different dates?

6 How do you find the time in a zone to the west of you? Give a rule and an example.

PREVIEW

My name _____ Date _____

Cut and Paste: City to Zone

Cut out the six cities. Paste each one in its zone.

Each city is in one zone. Cut out the cities. Paste each one in the box for its zone.

Eastern	Central	Mountain

Pacific	Alaska	Hawaii-Aleutian

Cut on the dashed lines: six pieces, two straight cuts across and two down.

Los Angeles	New York	Honolulu
Denver	Anchorage	Chicago

Which city was easiest to place? Why?

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Cut and Paste: Clock to Time

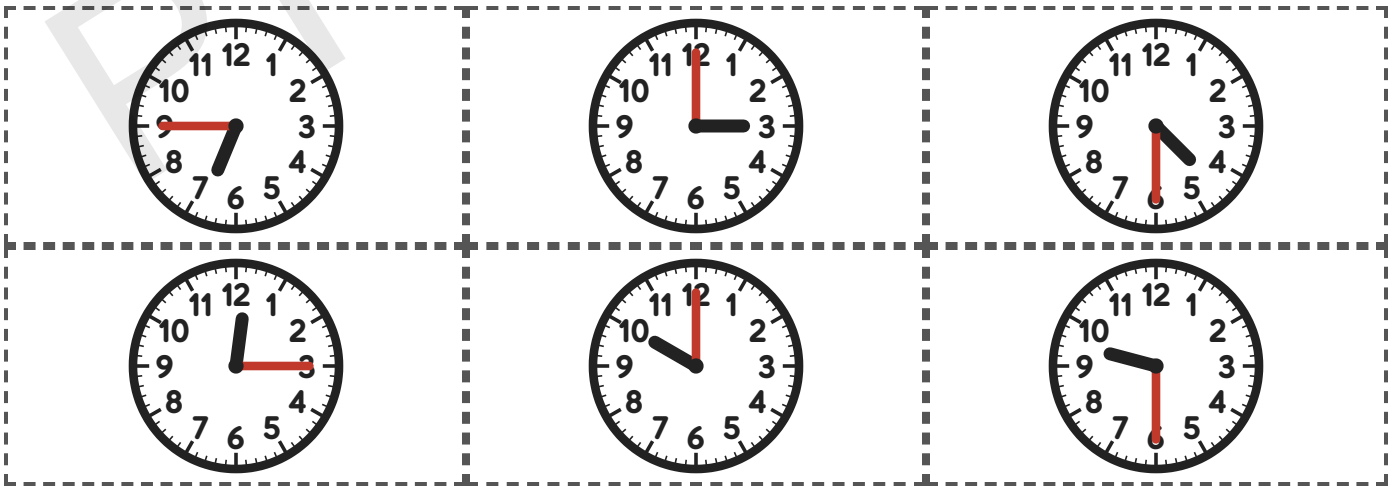
Cut out the six clocks. Paste each one by its time.

Read each clock. Paste it in the box that shows the same time in numbers.

3:00 p.m.	9:30 a.m.	12:15 p.m.

6:45 p.m.	10:00 a.m.	4:30 p.m.

Cut on the dashed lines: six pieces, two straight cuts across and two down.



Which clock was hardest to read? Why?

PREVIEW

Answer Key: Ahead and Behind, Calls

Both ahead-and-behind pages, Schedule the Call and Plan the Meeting. Standard time throughout.

Ahead or Behind A page 16

#	Answer
1	Chicago: 2:00 p.m.
2	Denver: 3:30 p.m.
3	Los Angeles: 9:00 a.m.
4	Seattle: 5:15 p.m.
5	Nashville: 10:00 a.m.
6	Anchorage: 10:45 a.m.
7	Honolulu: 11:00 a.m.
8	Phoenix: 8:30 a.m.

Ahead or Behind B page 17

#	Answer	#	Answer
1	7:00 a.m.	6	5:00 p.m.
2	6:00 p.m.	7	9:00 p.m.
3	2:30 p.m.	8	7:30 a.m.
4	5:45 p.m.	9	2
5	6:15 a.m.	10	2

Schedule the Call page 18

#	Answer
1	5:00 p.m.
2	6:30 p.m.
3	12:00 p.m.
4	8:00 p.m.
5	5:00 a.m.
6	4:00 p.m.

Plan the Meeting page 19

Eastern	Central	Mountain	Pacific
10:00 a.m.	9:00 a.m.	8:00 a.m.	7:00 a.m.
11:00 a.m.	10:00 a.m.	9:00 a.m.	8:00 a.m.
12:00 p.m.	11:00 a.m.	10:00 a.m.	9:00 a.m.
1:00 p.m.	12:00 p.m.	11:00 a.m.	10:00 a.m.
2:00 p.m.	1:00 p.m.	12:00 p.m.	11:00 a.m.
3:00 p.m.	2:00 p.m.	1:00 p.m.	12:00 p.m.

Meeting start times (Eastern)

#	Answer
19 earliest	12:00 p.m.
20 latest	4:00 p.m.

From Degrees to Hours page 26

#	Answer
1	15 degrees
2	2 hours
3	5 hours
4	8 hours
5	3 hours
6	6:00 a.m.

How the times were checked

Every time is the Eastern time minus the hours behind Eastern (Central 1, Mountain 2, Pacific 3, Alaska 4, Hawaii-Aleutian 5, standard time). A one-hour meeting fits from 9:00 a.m. Pacific (12:00 noon Eastern) to 5:00 p.m. Eastern.

PREVIEW

Answer Key: Quiz, Cut and Paste

The two quiz pages, the three cut-and-paste mats and the open answers on the daylight, degrees and meeting pages.

Quiz, Part A page 29

#	Answer
1	A: 15 degrees
2	B: Six
3	B: 1:00 p.m.
4	A: Clocks are set back one …
5	B: The prime meridian
6	B: It moves back one day

Quiz, Part B page 30

#	Answer
1	Pacific
2	Eastern
3	4
4	10:00 a.m.
5	12:00 p.m.
6	2 hours

Reading the sort keys

Read each strip left to right, top row first. On Who Gets Noon First the order is east to west: the Earth turns toward the east, so a clock in the east reaches 12:00 noon before a clock in the west.

Cut and Paste: City to Zone page 31

Piece (row, column)	Box
r1 c1: Los Angeles	Pacific
r1 c2: New York	Eastern
r1 c3: Honolulu	Hawaii-Aleutian
r2 c1: Denver	Mountain
r2 c2: Anchorage	Alaska
r2 c3: Chicago	Central

Cut and Paste: Who Gets Noon First? page 32

Piece (row, column)	Box
r1 c1: Alaska	5th
r1 c2: Mountain	3rd
r1 c3: Eastern	1st
r2 c1: Hawaii-Aleutian	6th
r2 c2: Central	2nd
r2 c3: Pacific	4th

Cut and Paste: Clock to Time page 33

Piece (row, column)	Box
r1 c1: clock	6:45 p.m.
r1 c2: clock	3:00 p.m.
r1 c3: clock	4:30 p.m.
r2 c1: clock	12:15 p.m.
r2 c2: clock	10:00 a.m.
r2 c3: clock	9:30 a.m.

Other open answers

- **Summer Clock Check (page 24):** Los Angeles and New York show the same time in winter and summer, because they change their clocks with Denver. Phoenix and Honolulu do not change, so each is one hour earlier next to Denver in summer.
- **From Degrees to Hours (page 26):** 60 / 15 = 4 hours behind UTC.
- **Plan the Meeting (page 19):** Any start time from 12:00 p.m. to 4:00 p.m. Eastern works; accept a reason about lunch or the end of the day.

PREVIEW

Class Progress Grid

Every student on one grid: items right by page type.

Class or group _____ Month _____

Student	Basics and words (of 12)	Readings (of 10)	Map and clocks (of 16)	Ahead and behind (of 44)	Travel (of 12)	Daylight and date line (of 28)	Quiz (of 12)	Cut and paste (of 18)

PREVIEW

How to fill this in

For each column, add up how many items that student has right with no prompt (the tracker rows). One glance across a row shows which skill is easiest and which is next.

Grouping for small-group time

Students low in Readings need the readings read aloud and the main idea box done together (pages 6 to 10). Students low in Ahead and behind can start with the clock pages (14, 15) and the cut-and-paste mats (pages 31 to 33). Students near full marks can move to the travel pages (21, 22) and the call page (20).

Time Zones at Home

Dear family, this week we are learning about time zones: why the clock reads differently in different places and how to find the time somewhere else. These questions are for talking, not for a grade. Short answers are fine.

Student _____ Week of _____

Three things to talk about

- Ask your student why the Earth has time zones, in their own words: it turns once a day, so it is day on one side and night on the other.
- Pick a relative or a friend in another zone. Ask: "When we eat dinner, what time is it for them? Is it earlier or later?"
- Ask: "If we called at 6:00 p.m. our time, would they be awake? How can the zone map help you decide?"

My words from home

A person in another zone _____

Their zone and our zone _____

Their time when it is dinner here _____

Words that may come up

Time zone: a region that uses the same clock time. **Prime meridian:** the line at 0 degrees longitude. **UTC:** the time at the prime meridian. **Daylight saving time:** clocks set one hour ahead from spring to fall. **Date line:** where the calendar day changes.

Note from the teacher

Note from home

PREVIEW

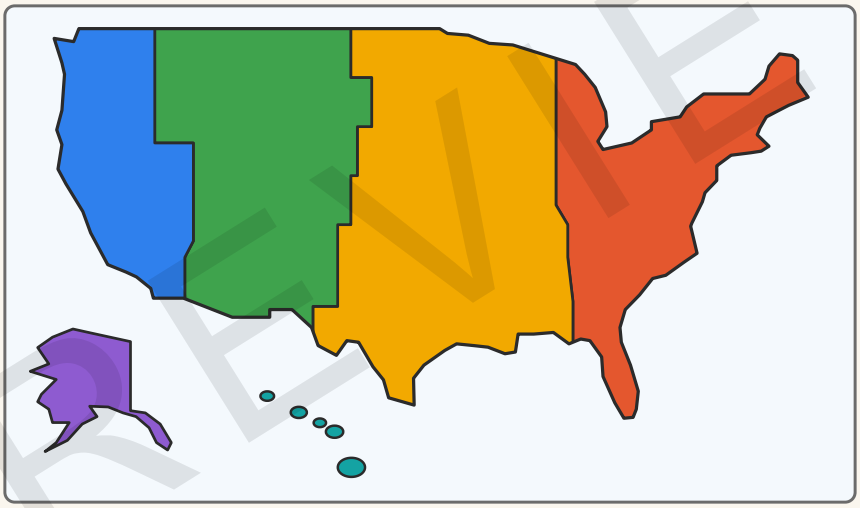
Binder Cover

Slide this into the front of a binder. Type a name in the two fields or write it by hand. The divider tabs and a spine label to cut out are on the next page (page 47).

Social Studies - Geography

TIME ZONES

Readings, Maps and Practice



Zones | Clocks | Calls and trips | Daylight saving

Teacher _____

Class or student _____

PREVIEW