



San Diego Unified School District

Instructional Module to Enhance the Teaching of

HARCOURT

Math

California Edition

Grade 1

Module 7–Revised

Time

–WORK IN PROGRESS –

San Diego City Schools
 Instruction and Curriculum Division
 MATHEMATICS CURRICULUM MAP – GRADE 1

MODULE 7 – TIME

Modules represent individual units of study that lead to essential learnings

THREADS THROUGHOUT THE YEAR:

The threads represent ongoing learning opportunities in which students should be actively engaged throughout all units of inquiry during the entire school year. These items should not be isolated to any one particular unit of inquiry.

- Students will be provided opportunities to:
 - Develop understanding of numbers and the number system and use their understanding to solve problems and recognize reasonable results.
 - Use mathematical reasoning to solve problems.
 - Develop understanding of and fluency in basic computation and procedural skills.
 - Use equations and to express generalizations of patterns and relationships.
 - Communicate their mathematical thinking by using words, numbers, symbols, graphs and charts., and describe different representations
 - Express generalizations of patterns and relationships.
 - Make connections among mathematical ideas and between other disciplines.
 - Develop and use strategies, skills, and concepts to solve problems.
 - Use appropriate tools, including technology as vehicles to learn mathematical concepts.

These are essential learnings that represent bigger ideas/concepts:*

- Students tell time in both digital and analog formats.
- Students tell time to the nearest half hour.
- Students relate time to events and make comparisons (e.g., before/after, shorter/longer).
- Students can compare the relative length of one event when compared to another event (e.g. Which takes longer).
- Students use a calendar as tool to tell when an event occurred (Tuesday, tomorrow, today) .
- Students can estimate lengths of time for events in their lives.

* Essential learnings listed above will be developed by students over the course of the year.

These are essential questions that learners ask themselves in order to achieve the essential learnings:

- How can I sequence of events (Which happens first? second? What happened today? yesterday?)*
- What tools/units/vocabulary do I use to measure the passage of time?
- How do I estimate the length of time of events**?
- How do I tell the correct time to the nearest half hour using the displays of both digital and analog time?

**Previously presented in kindergarten.

Resources: Van de Walle, Chapter 19, pp. 341-342

**Time
Chapters 18-19
11 Days**

Key Mathematical Concepts:

- Identify the parts of a clock
- Tell time to the hour and the nearest half hour
- Relate time to events (e.g., before/after, shorter/longer)
- Make reasonable estimates of time
- Solve problems by using an appropriate strategy

Math Background:

This lesson introduces children to the parts of an analog clock as well as time notation. As children begin to learn to tell time, it is vital that they can properly identify the hour and minute hands and read time notation

Children often confuse the hour hand with the minute hand by making an incorrect connection between the length of the hand and the length of the hands rather than the “big” and to reinforce the vocabulary.

<p>Chapter 18: Telling Time <u>DAY</u></p> <p>1 18.1 Read a Clock 2 18.2 Problem Solving: Act it Out 3 18.3 Time to the Hour 4 18.4 Tell Time to the Half Hour 5 18.5 Practice Time to the Hour and Half Hour</p>	<p>Chapter 19: Time: Days and Months <u>DAY</u></p> <p>6 19.1 Month and Days 7 19.2 Order Events 8 19.3 Problem Solving 9 19.4 Read a Schedule 10 19.5 Problem Solving: Make Reasonable Estimates 11 Review and Assessment</p>
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<p><u>Day 1</u> Unit 4 Lesson 18.1 Read a Clock</p>	<p><u>Day 2</u> Unit 4 Lesson 18.2 Problem Solving</p>	<p><u>Day 3</u> Unit 4 Lesson 18.3 Time to the Hour</p>	<p><u>Day 4</u> Unit 4 Lesson 18.4 Time to the Half-Hour</p>	<p><u>Day 5</u> Unit 4 Lesson 18.5 Time to the Hour and Half-Hour</p>
<p><u>Day 6</u> Unit 4 Lesson 19.1 Month and Days</p>	<p><u>Day 7</u> Unit 4 Lesson 19.2 Order Events</p>	<p><u>Day 8</u> Unit 4 Lesson 19.3 Problem Solving</p>	<p><u>Day 9</u> Unit 4 Lesson 19.4 Read a Schedule</p>	<p><u>Day 10</u> Unit 4 Lesson 19.5 Problem Solving</p>
<p><u>Day 11</u> Unit 4 Review and Assessment</p>				

	<ul style="list-style-type: none"> • Continue asking questions as children manipulate their clocks: What does it mean when the minute hand is on the 12? (The time is on the hour- read o'clock) Place your minute hand on 12 and your hour hand on 4. What is the hour hand telling you? (It is 4 o'clock.) Leave your minute hand on twelve and move your hour hand to the 6. Now what is your clock telling you?(It is 6 o'clock.) Continue as necessary. • Now tell children: <i>Show me 9:00. What are you doing at 9:00 in the morning?</i> • <i>Show me 1:00. What are you doing at 1:00 in the afternoon?</i> • <i>Show me 11:00. What are you doing at 11:00 at night?</i> • Write a list of times to the hour on the board. Ask partners to take turns showing the correct time on their clock and checking it with their partner. <i>What are you doing at that time?</i>
EXPLORE:	Students work in pairs showing different times to the hour on their paper clocks. Students discuss what they are doing at this time.
PRACTICE: TE and Workbook P. 253-254	<ul style="list-style-type: none"> • As time allows, Workbook P. 253-254
SUMMARIZE:	<p>Revisit with students the lesson's objective by connecting the following discussion to the purpose of the lesson.</p> <p>Discuss: <i>Draw or show a clock face with 10 o'clock as the time. Ask: What time is it? How do you know? How can you tell the two hands apart from each other? What are you doing at 10:00 in the morning? 10:00 at night?</i></p>
HOMEWORK:	Suggestion: Family Involvement Activities P. FA79

DAY 2
Chapter 18: Telling Time
LESSON 18.2, TE P. 255A

Math Background As children identify whether activities will take more or less than one minute, they are tackling one of the most challenging estimation skills. Children tend to overestimate the amount of time that passes and will stop well before the minute is up. Encourage children to watch the minute hand on the classroom clock a complete full cycle to show how long a minute really is. Egg timers are an effective way to help children learn just how long a minute is.

LESSON FOCUS:	Problem Solving: Act it Out
CALIFORNIA STANDARD:	Measurement and Geometry 1.2 Tell time to the nearest half hour and relate time to events.
PURPOSE OF LESSON:	Children learn to estimate one minute of time.
ROUTINE: <i>TE P. 256</i> <i>TE P. 255A</i> <i>TE P. 256 Read-Aloud Anthology, P. AN4</i>	Suggestion: Continue money routines as necessary (from Module 6). Or Mixed Review and Test Prep TE P. 256 <i>Use the 1-100 Chart as tool for solving problems such as these.</i> Or Fast Facts – TE P. 254. <ul style="list-style-type: none"> • Skip counting by fives is an important skill for reading a clock. • Encourage children to practice counting by fives by finding a partner and saying the fives in turn: the first child says 5 the second 10 and so on up to 60. <ul style="list-style-type: none"> • (Be sure that children understand that as they count by 5’s, they are actually finding a shortcut for counting all the seconds on the clock. It is confusing for children to see a 1 and say “5” and to see a 2 and say “10.” Or Literature Connection TE P. 256
LAUNCH: <i>Materials: For each child, Analog Clock Model (P. TR73)</i> Suggestion: Run copies on cardstock so the clocks will last throughout the unit; crayons, scissors, glue, paper fastener	Introduce Explore: Alternative Teaching Strategy TE P. 256A If students are having difficulty finding appropriate tasks to perform, the following are some suggestions: <i>How many times do you think you can:</i> <ul style="list-style-type: none"> • Jump up and down? • Walk around the room? • Write your name? • Blink both of your eyes? • Reach to the sky then touch your toes? • Recite your favorite poem?
EXPLORE:	<ul style="list-style-type: none"> • Students make predictions and check results by <i>acting it out</i>. • Teacher tells students when to start and stop (unless students are able to do this independently).

PRACTICE: <i>TE and Workbook</i> <i>P. 256</i>	As time allows, TE and Workbook P. 256
SUMMARIZE:	Revisit with students the lesson's objective by connecting the following discussion to the purpose of the lesson. Discuss: Ask students questions about their work, such as, <ul style="list-style-type: none"> • <i>"I see you predicted you could jump 10 times in one minute?"</i> • <i>Was the actual more or less than your prediction?"</i> • <i>Did your results from your first activity help you to make closer predictions on the next activity you tried?"</i> • Ask children to help you list five activities and decide if each will take more or less than a minute.
HOMEWORK:	Suggestion: Reading Strategy 18.2 (see bottom margin, TE P. 256).

DAY 3
Chapter 18: Telling Time
LESSON 18.3, TE P. 257A

LESSON FOCUS:	Time to the Hour
CALIFORNIA STANDARD:	Measurement and Geometry 1.2 Tell time to the nearest half hour and relate time to events.
PURPOSE OF LESSON:	To read the time on an analog clock, to write the time on a digital clock
ROUTINE: <i>TE P. 257A</i>	<p>Suggestion: Continue money routines as necessary (from Module 6). Or Daily Routine TE P. 257A</p> <ul style="list-style-type: none"> • Continue questioning: <ul style="list-style-type: none"> • <i>How did you think about the problem to come up with that answer?</i> • <i>Did anyone think about it another way?</i> • <i>Do you agree or disagree with this response?</i> • <i>What was your strategy?</i> • <i>Explain how you got your answer.</i> <p>Or Quick Review TE P. 257</p>
LAUNCH: <i>TE and Workbook Pp. 257-258, paper clocks</i>	<p>Introduce Explore: Follow instructions for Teach, TE p. 257</p> <ul style="list-style-type: none"> • Draw an analog clock so it shows 9 o'clock • ASK: <i>What time does the clock show?</i> • Write :00 on the board. Explain that on digital clocks, the :00 shows the number of minutes. Since it is on the hour, there are no minutes showing • ASK: <i>How would we write 9 o'clock on a digital clock?</i> <p>[Children must make the connection between the digital and the analog clock. Consider displaying a digital clock near the analog clock in the classroom. Since the number system is based on tens, it is sometimes difficult for children to realize that 60 minutes make an hour. Stress that people often count minutes by five as a shortcut. This is a good time to review skip counting.]</p>
EXPLORE:	Students work independently or with a partner, completing Workbook P. 257-258.
PRACTICE: <i>TE P. 254A</i>	As time allows, Advanced Learners Activity from Lesson 18.1 TE P. 254A

SUMMARIZE:	Revisit with students the lesson's objective by connecting the following discussion to the purpose of the lesson. ASK: <i>What is the difference between an analog clock and a digital clock? How are they alike? (They both tell us time.) How are they different? (Analog uses an hour hand and a minute hand. A digital uses only numbers and a colon – 2 dots.)</i> Discuss and Write: TE P.258
HOMEWORK:	Suggestion: Practice 18.3 (see bottom margin, TE P. 257).

DAY 4
Chapter 18: Telling Time
LESSON 18.4, TE P. 259A

LESSON FOCUS:	Tell Time to the Half Hour
CALIFORNIA STANDARD:	Measurement and Geometry 1.2 Tell time to the nearest half hour and relate time to events.
PURPOSE OF LESSON:	To read an analog clock that shows the time to the half-hour
ROUTINE: <i>TE P. 259A</i> <i>TE P. 259</i>	<p>Suggestion: Continue money routines as necessary (from Module 6). Or Daily Routine TE P. 259A Or Quick Review TE P. 259 Or Mixed Review and Test Prep TE P. 260</p> <ul style="list-style-type: none"> • Ask students how they can use the 1-100 chart and/or the number line to help them solve these problems and prove their answers are correct.
LAUNCH: <i>TE P. 259A, paper clocks</i>	<p>Getting Started: What is a Half Hour? TE P. 259A</p> <ul style="list-style-type: none"> • Ask students to place their minute hand half-past or 30 minutes past the hour. Then ask them to place the hour hand halfway between the 1 and the 2. • Ask, “<i>Is it half past 1 or half-past 2? How do you know? What makes more sense?</i>” • Explain that another way to say half-past 1 is 1:30. Continue with other times to the half hour. When modeling half-past, the hour hand is not actually pointing directly at the hour: it is in between. Make sure to model this correctly. • Have children notice that the hour hand is moving towards the next hour and will be between the hours when the time is on the half hour. <p>Introduce Explore: Write a list of times to the half hour (3:30, 4:30, etc.) on the board.</p> <ul style="list-style-type: none"> • Ask partners to take turns showing the correct time on their paper clocks then having their partner check their work. • As students work remind them that 30 past the hour is half-past the hour so their hour hand must show that it is half-past the hour as well. “<i>What are you doing at each of these times of the day?</i>”
EXPLORE:	Students work with a partner showing times on their clocks.
PRACTICE: <i>TE and Workbook P. 259-260</i>	As time allows, TE and Workbook P. 259-260

SUMMARIZE:	<ul style="list-style-type: none">• Revisit with students the lesson's objective by connecting the following discussion to the purpose of the lesson. <p>Discuss and Write: Ask students: <i>"Why is 30 minutes called a half hour?"</i></p> <ul style="list-style-type: none">• Discuss. Then ask them to draw a picture or explain their thinking in words.• <i>Show me 9:30 on your clock. What are you doing at this time of the day?</i> <ul style="list-style-type: none">• Teacher shows 2:30 on his/her clock. Teacher asks, <i>What time does this clock show? Partners whisper to another the time. How do you know? What are you doing at this time of the day?</i>
HOMEWORK:	Suggestion: Family Involvement Activities P. FA81

DAY 5
Chapter 18: Telling Time
LESSON 18.5, TE P. 261A

LESSON FOCUS:	Practice Time to the Hour and Half Hour
CALIFORNIA STANDARD:	Measurement and Geometry 1.2 Tell time to the nearest half hour and relate time to events.
PURPOSE OF LESSON:	To read the time on analog and digital clocks to the hour and half hour.
ROUTINE: <i>TE P. 261</i> <i>TE P.262</i> <i>TE P. 261A</i>	Suggestion: Continue money routines as necessary (Module 6). Or Quick Review TE P. 261 Or Mixed review and Test Prep TE P. 262 <ul style="list-style-type: none"> • Ask students how they can use the 1-100 chart and/or the number line to help them solve these problems and prove their answers are correct. Or Problem of the Day, TE P. 261A
LAUNCH: <i>TE P. 262A, For each child: 2 sheets of blank paper, pencil, crayons or markers, paper clocks</i>	Introduce Explore: Advanced Learners TE P. 262A <ul style="list-style-type: none"> • Also ask children to show each time on their analog paper clock as they work. [Children will misplace the hour hand when drawing to the half hour. Reinforce the fact that the hour hand will actually be between the hours when the time is on the half hour. Point out that the hour hand must appear shorter than the minute hand.]
EXPLORE:	<ul style="list-style-type: none"> • Students work independently creating their hourly logs and showing the hours and half-hours on their paper clocks.
PRACTICE: <i>TE and Workbook Pp. 261-262</i>	As time allows, TE and Workbook Pp. 261-262
SUMMARIZE:	<ul style="list-style-type: none"> • Revisit with students the lesson's objective by connecting the following discussion to the purpose of the lesson. Discuss and Write: Ask students to talk about their logs with a partner. Then, in whole group, ask questions like, <ul style="list-style-type: none"> • "What were you doing at 8:30?" • Show me in your log and on your clock. • What do you think you will be doing at 12:00?" • Show me the time on your clock."
HOMEWORK:	Suggestion: Practice 18.5 (See bottom margin, TE P. 261).

	<ul style="list-style-type: none"> • On the board, write the following questions and ask them to discuss them in their groups before getting started: <ul style="list-style-type: none"> • Is there anything in the room that can help with this task? • Where will you write the number 1 for the first day of this month? • Explain how knowing the last day of last month helps you to know the first day of this month. • What will be the last number we write for the month? • Where will you write it? • Does anyone in your group have a birthday this month? If so, where will you write it? • If groups are struggling reading and comprehending the questions, you may choose to have this discussion as a whole group.
EXPLORE:	Students work in small groups discussing and creating their calendar page.
PRACTICE: <i>For each student, another blank calendar (TR76)</i>	As time allows, ask groups to create another calendar page for next month. Have them discuss the same questions before getting started.
SUMMARIZE:	<ul style="list-style-type: none"> • Revisit with students the lesson’s objective by connecting the following discussion to the purpose of the lesson. Discuss and Write: Ask various questions about the calendar, such as, <ul style="list-style-type: none"> • “What is the first month of each year? If you forget, how can you find out?” • What month follows June? If you forget, how can you find out? • What month is before December? If you forget, how can you find out? • What month comes before January? If you forget, how can you find out?” • Also revisit the questions written on the board for the Explore Activity. Discuss. • In conclusion ask, “ Why do think having and using your own calendar can be helpful to your life?”
HOMEWORK:	Suggestion: Family Involvement Activities P. FA85

