

LEVEL

B

NUMBER WORLDS™

Accelerate Math Success

English Learner Support Guide

Weeks 31–32

Section at a Glance

In this section, students will learn the vocabulary associated with **Number Worlds**, Level B, Weeks 31–32. Students will learn about the analog clock and the terms *hour* and *minute* as commonly used periods of time. They will learn how to manipulate the hands on a clock in order to show hourly time. Students will also use the words *o'clock*, *hour hand*, and *minute hand*. Students will also learn about four denominations of money, the penny, the nickel, the \$1 bill, and the \$5 bill. They will also model subtraction using currency. Before beginning the section, assess students' general knowledge of math vocabulary using the Individual Oral Assessment on page 105.

How Students Learn Vocabulary

This section's vocabulary addresses time and money. English learners will become familiar with different terms related to time and money using manipulatives such as an analog clock with movable hands and play money. They will also model the concept of subtraction using play money.

Academic Vocabulary Taught in Weeks 31–32

Week 31

clock A special dial for telling the time

hour The time that passes when the hour hand moves from one number to the next number

minute The time that passes when the minute hand move from one mark to the next mark

Week 32

penny A small copper coin worth 1 cent

nickel A small silver-colored coin worth 5 cents

\$1 bill Paper money worth 100 pennies

\$5 bill Paper money worth 5 dollars

subtract To take one number away from another

Weeks 31–32 Individual Oral Assessment

Directions: Read each question to the student, and record his or her oral responses. Some questions have teacher directions. Teacher directions are indicated in italics. Allow students to use pencil and paper to work their responses.

1. Please place the correct number of counters on the number line as you count aloud from 1 to 12. *Draw a vertical number line from 1 to 12. Give the student a pile of at least twelve counters.* **The student should count aloud 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and display corresponding numbers of counters.**
2. Is this a clock? *Show students an analog clock.* **yes**
3. Point to the hour hand. *Show students an analog clock.* **Student should point to the short hand.**
4. Point to the minute hand. **Student should point to the long hand.**
5. What number is the hour hand pointing to? *Move the hour hand so it is pointing to 7. Move the minute hand so it is pointing to 9.* **seven**
6. What number is the minute hand pointing to? *Move the hour hand so it is pointing to 3. Move the minute hand so it is pointing to 10.* **10**
7. Move the hour hand forward one hour. **Student should move the hour hand to the next number.**
8. Is this a penny? *Place a nickel on the table in front of the student.* **no**
9. Is this a penny? *Place a penny on the table in front of the student.* **yes**
10. Is this a \$1 bill? *Place a \$1 bill on the table in front of the student.* **yes**
11. Subtract two pennies from this set. *Display a pile of five pennies. Give the student a few pennies.* **Student should remove two pennies.**
12. Add one \$1 bill to this set. *Display nine pennies and one dollar bill. Give the student a few pennies and two \$1 bills.* **Student should add one \$1 bill.**
13. What time is it? *Show students an analog clock set to 5 o'clock.* **five o'clock**

- **Beginning English Learners:** 0–3 of Questions 1–10 correct
- **Intermediate English Learners:** 4–7 of Questions 1–10 correct
- **Advanced English Learners:** 8–10 of Questions 1–10 correct
- If the student is able to answer Questions 11–13, then he or she can understand the mathematics taught in this unit but may still have difficulty with the academic vocabulary.

Use the Student Assessment Record, page 139, to record the assessment results.

Understanding the Analog Clock

Week 31

Objective

Students become acquainted with an analog clock, read hour times on the clock, and understand the words *clock*, *hour*, and *minute*.

Vocabulary

- **clock** A special dial for telling the time
- **hour** The time that passes when the hour hand moves from one number to the next number
- **minute** The time that passes when the minute hand move from one mark to the next mark

Materials

Program Materials

Vocabulary Cards: *clock*, *hour*, *minute*

Additional Materials

- analog clock with movable hands
- photos of various items, including clocks

1 WARM UP

Introduce each vocabulary word to students. Say the word aloud and have students repeat it.

Display the *clock*, *hour*, and *minute* **Vocabulary Cards**. Pronounce each word and have students repeat it.

Point to the clock in the classroom.

► What is this? **clock**

Say *clock*, and have students repeat.

Show several photos of various items, including several clocks. Point to photos one at a time.

► Is this a clock?

Distribute an analog clock with movable hands to each student. Discuss the attributes of the clocks.

► What shape is the clock?

► What numbers do you see?

► Put your finger on 12. Then touch each number and say its name.

► After 12, what number do you say next?

2 ENGAGE

Point to the hands on your clock and have students touch the hands on their clocks. Tell students that the short hand is the *hour hand*. Model the word and have students say it. Repeat for *minute hand*.

Have students move the hands so that they are both pointing to 12. Say, *This is 12 o'clock*. Have students repeat. Prompt students to move the hour hand to the next number and say the hour.

► Put the hour hand on the 1. What time is it now? **one o'clock**

► How many hours have passed? **one**

Tell students that when the hour hand travels from a number to the next number, one hour has passed. Repeat moving the hands and saying the time for each number on the clock and telling how many hours have passed.

► After 12 o'clock, what is the next hour? **one o'clock**

Hide your clock from students. Set your clock to 4 o'clock.

► What time is it now?

Repeat several more times.

Dictate some times and have students set their clocks to that time.

► Show me 8 o'clock.

► What is one more hour after 8 o'clock?

► What is two more hours after 8 o'clock?

Allow students to experience how long a minute is by sitting silently, singing a song, or doing jumping jacks.

► Is a minute a long time or a short time?

Use your clock to demonstrate moving the minute hand forward one minute.

► Can you move your minute hand forward by one minute? By five minutes? By 20 minutes?

Teacher Note

English learners may have wildly varying levels of language acquisition. For this reason, adjust your questions and explanations according to students' abilities. In the same vein, expect different types of answers from students. Beginning students may only be able to point or say *yes* and *no*, while Intermediate students can produce a complete sentence. Allow for these differences and praise any efforts.

Progress Monitoring

If... students struggle with combining /l/ with other consonant sounds, as in the word *twelve*, *clock*, or *o'clock*,

► **Then...** model each consonant blend in isolation (e.g., /kl/ or /lv/) and have students practice it. Then extend modeling to the complete word and prompt students to say each word several times.

3 REFLECT

Extended Response

- **What time do you get up? Get on the bus? Eat lunch? Go to bed?**
- **Why do we need clocks?**
- **What can you do in one minute?**
- **What takes more than one hour to do?**

Encourage student discussion of these questions and answers.

Progress Monitoring

If... students struggle with language for answering the Extended Response questions,

► **Then...** rephrase the question so that it can be answered by pointing or with a *yes* or *no*. For example, show a photo of a sleeping child and ask, *Does this take more than one hour?*

4

ASSESS

Informal Assessment

Have students complete the activity below to make sure they understand the vocabulary. As students use each word:

1. Check understanding.
2. Correct errors.
3. Recheck for understanding.

- Say the word *clock*, and have students demonstrate understanding of the word.
- Repeat for each vocabulary word.

For each word, use the following rubric to assign a score.

The student can repeat the word when prompted. (1 point)

The student knows the word but does not know its meaning. (2 points)

The student has a vague idea of the word's meaning. (3 points)

The student knows the word and can use the word in context. (4 points)

The Five-Dollar Bill and the Nickel

Week 32

Objective

Students will recognize, examine, and compare the values of the penny, nickel, \$1 bill, and \$5 bill.

Vocabulary

- **penny** A small copper coin worth 1 cent
- **nickel** A small silver-colored coin, worth 5 cents
- **\$1 bill** Paper money worth 100 pennies
- **\$5 bill** Paper money worth 5 dollars
- **subtract** To take one number away from another

Materials

Program Materials

Vocabulary Cards: *penny, nickel, \$1 bill, \$5 bill, subtract*

Additional Materials

- pennies
- nickels
- \$1 bills
- \$5 bills

1 WARM UP

Introduce each vocabulary word to students. Say the word aloud and have students repeat it.

Display the **Vocabulary Cards**. Pronounce each word and have students repeat.

Distribute one penny, one nickel, one \$1 bill, and one \$5 bill to students. Hold up a penny, say *penny*, and have students repeat. Repeat for the nickel, \$1 bill, and \$5 bill. Tell students that the penny and nickel are coins because they are metal. The bills are paper money. Compare to other items made of metal or paper.

Have students study each piece of currency and note its characteristics.

- **Which are round?** penny, nickel
- **Which are not round?** \$1 bill, \$5 bill
- **What color is it?**
- **Which one says one cent on it?** penny *Five cents?* nickel *One dollar?* \$1 bill *Five dollars?* \$5 bill
- **Which one has a man on it?**

To wrap up the Warm Up, ask students to show you each piece of currency as you ask for it. Repeat several times until students respond confidently.

2 ENGAGE

Sit in a circle on the floor. Give each student five pennies and one nickel. Say, *A penny equals one cent. There are five pennies in a nickel.* Place your nickel in front of you and say, *One nickel is five cents.* Count out five pennies and put them next to the nickel. Have students count out their own five pennies.

- **What does a penny equal?** one cent
- **How many cents are there in a nickel?** five
- **If you have a nickel and add one penny, how much will you have?** six cents
- **How many pennies is that?** six
- **If you have a nickel and take away one penny, how much will you have?** four cents
- **What do you do when you take away one penny from the group?** subtract

Remind students that to *subtract* means “to take away.” Repeat the “take away” activity by subtracting two or three pennies at a time. Do the subtraction activity with five \$1 bills and one \$5 bill.

- **Which one is worth more, the penny or the nickel?** the nickel
- **Which one is worth more, the \$1 bill and a \$5 bill?** the \$5 bill

Hold up a \$1 bill and a penny and say, *One dollar equals one hundred cents.*

- **How many pennies is that?** 100
- **Which one is worth more, the penny or the \$1 bill?** the \$1 bill
- **Which one is worth more, the nickel or the \$1 bill?** the \$1 bill

Have partners work together to order the currency from least to greatest value.

Teacher Note



As partners are working together to order their pieces of currency, encourage the use of comparison language such as *less than*, *greater than*, *more than*, *smaller than*, and *bigger than*. Offer sentence frames such as, *A _____ is _____ than a _____.*

Progress Monitoring

If... students are having trouble subtracting a penny from a nickel,

► **Then...** then have them replace the nickel with five pennies and then subtract.

3 REFLECT

Extended Response

- What is the same about the \$1 bill and the \$5 bill? What is different?
- Why do we need money?
- What do you like to buy with money?
- Have you paid for something at the store? Did you get change back?

Encourage student discussion of these questions and answers.

Progress Monitoring

If... students are not contributing to the conversation,

► **Then...** encourage them by asking simpler, short-answer questions, such as *When did you go to the store? What did you buy there? How much was it?*

4 ASSESS

Informal Assessment

Have students complete the activity below to make sure they understand the vocabulary. As students use each word:

1. Check understanding.
2. Correct errors.
3. Recheck for understanding.

- Say the word *penny*, and have students demonstrate understanding of the word.
- Repeat for each vocabulary word.

For each word, use the following rubric to assign a score.

The student can repeat the word when prompted. (1 point)

The student knows the word but does not know its meaning. (2 points)

The student has a vague idea of the word's meaning. (3 points)

The student knows the word and can use the word in context. (4 points)

Final Oral Assessment

Administer the appropriate Final Oral Assessment, pp. 110–111, to each student. Use the rubric to determine students' levels of vocabulary acquisition.

Use the Student Assessment Record, page 139, to record the assessment results.

Final Oral Assessment 1, p. 110

Weeks 31–32 Final Oral Assessment 1 (Beginning English Learners)

Directions: Read each question to the student, and record his or her oral responses.

Some questions have teacher directions. Teacher directions are indicated in italics.

Allow students to use pencil and paper to work their responses.

- | | |
|--|---|
| <ol style="list-style-type: none">1. Is this a clock? <i>Point to the board.</i> no2. Is this a clock? <i>Show students an analog clock.</i> yes3. Please touch each number on the clock and count. <i>Have students start with their finger on 12.</i> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 124. Move the hour hand to 6. <i>Make sure the minute hand stays on 12.</i> Student should move the short hand to 6.5. Move the minute hand forward five minutes. Student should move the minute hand forward five minutes in a clockwise direction. | <ol style="list-style-type: none">6. Is this a penny? <i>Show students a nickel.</i> no7. Is this a nickel? <i>Show students a nickel.</i> yes8. Where is a \$1 bill? <i>Put a pile of pennies, nickels, and \$1 bills in front of student.</i> Student should point to a \$1 bill.9. Take away two pennies. Student should remove two pennies.10. Did you add or subtract the pennies? subtract |
|--|---|

- **Minimal Understanding:** 0–3 of Questions 1–10 correct
- **Basic Understanding:** 4–7 of Questions 1–10 correct
- **Secure Understanding:** 8–10 of Questions 1–10 correct

Use the Student Assessment Record, page 139, to record the assessment results.

Weeks 31–32 Final Oral Assessment 2 (Intermediate and Advanced English Learners)

Directions: Read each question to the student, and record his or her oral responses.

Some questions have teacher directions. Teacher directions are indicated in italics.

Allow students to use pencil and paper to work their responses.

1. Point to a clock. *Show students several photos, one of which is a clock.* **Students should point to a clock.**
2. What time is it? *Show students an analog clock. Set it to 7 o'clock.* **7 o'clock.**
3. Please count aloud as you move the hour hand forward three hours. **Student should move the hour hand forward from the 7 to the 10.**
4. Move the minute hand forward five minutes. *Give the student an analog clock with the hour hand on 8 and the minute hand on 11.* **Student should move the minute hand from the 11 to the 12.**
5. Did I just change the time by ten minutes or ten hours? *Move the minute hand from the 12 to the 2.* **10 minutes**
6. How many \$1 bills are there? *Display a set of 7 pennies, 8 nickels, 5 \$1 bills, and 2 \$5 bills.* **five**
7. Did I add two \$1 bills or subtract two \$1 bills? *Take two \$1 bills from the pile.* **Subtracted two \$1 bills.**
8. Which has more value? *Display a penny and a nickel.* **the nickel**
9. How do you know? **One nickel equals five pennies.**
10. Order the money from least to greatest value. *Give student a nickel, a \$1 bill, a \$5 bill, and a penny.* **penny, nickel, \$1 bill, \$5 bill**

- **Minimal Understanding:** 0–3 of Questions 1–10 correct
- **Basic Understanding:** 4–7 of Questions 1–10 correct
- **Secure Understanding:** 8–10 of Questions 1–10 correct

Use the Student Assessment Record, page 139, to record the assessment results.

LEVEL

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English Learner Support Guide

Lessons, strategies, and resources
to support English Learners in the
Number Worlds program

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Graw
Hill**
Education

MHID 0-02-129985-4
978-0-02-129985-0

