Comparing Numbers: I Want More

LESSON 13

Learning Objectives

Counting and Cardinality

- Students will identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

Mathematical Practices and Processes

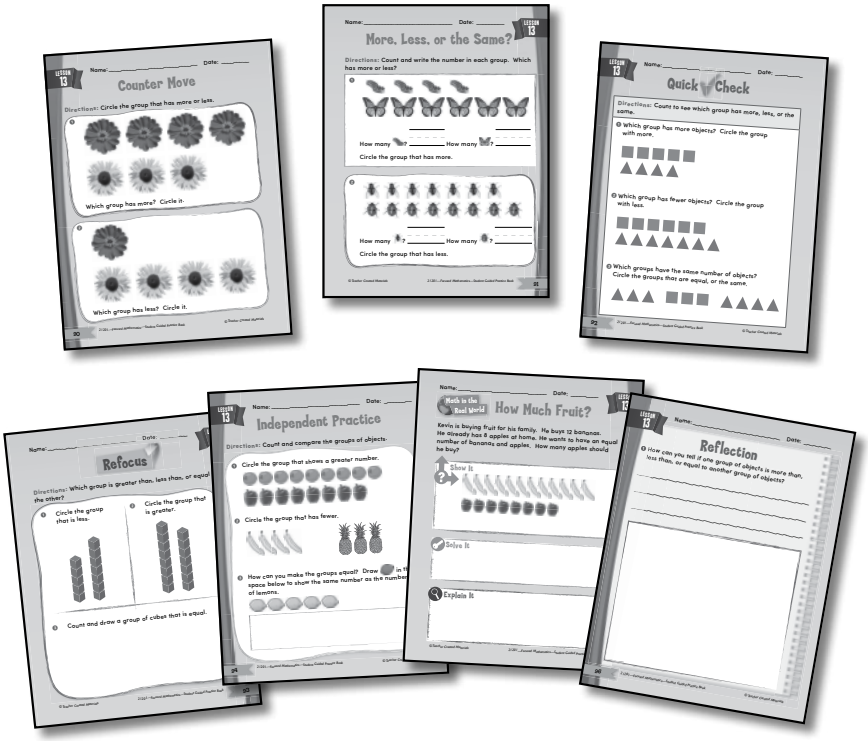
- Reason abstractly and quantitatively.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Materials

- *Student Guided Practice Book* (pages 90–96)
- Math Fluency Game Sets
- Digital Math Fluency Games
- counter punchouts (yellow and red)
- connecting cubes (blue and red)

Progress Monitoring

The *Student Guided Practice Book* pages below can be used to formally and informally assess student understanding of the concepts.



Teacher Background

To avoid misconceptions, teach students to compare by using matching, counting, and equal sharing strategies to determine if one group of objects is greater than, less than, or equal to the number of objects in another group. At this level, students are expected to master comparisons of collections with up to 10 objects in each group. Instructional tools such as dot cards, connecting cubes, and five and ten frames are helpful visual models that may assist students to keep track of the objects counted for comparing.

Comparing Numbers: I Want More *(cont.)*

Warm-Up (10) min.

1. Invite students to sit in a circle around you.
2. Tell students they will be comparing numbers today.
3. Say, "Sometimes, we need to know if one group of objects has more, less, or an equal amount compared with another group. Groups of objects are sets that you count separately from another set. We can compare groups by finding out if the groups are similar or different. In this lesson, we will compare groups to find out if one group has more than, less than, or the same as another group."
4. Invite four boys and three girls to the front of the room. (You may also use a counting manipulative for this activity.) Say, "Let's compare the group of boys to the group of girls and determine which group has more people."
5. Say, "One way we can find out which group has more is if we count the members in each group. Let's count the boys' group: 1, 2, 3, 4. There are four boys in this group. Now, let's count the girls' group: 1, 2, 3. There are three girls in this group. Which group has more?" (*the boys' group*) "How do you know? We know 4 is more than 3 because 4 comes after 3 when we count. We also know 4 is more than 3 because 3 is closer to 0 than 4 is. What are some other ways we can compare groups?" (*Line the groups up next to each other; match up group members to see which has more left over.*)
6. Invite three boys and five girls to the front of the room. Say, "Let's compare these groups of boys and girls." Repeat the process with these groups. If time allows, repeat the process with two groups with equal members.

Comparing Numbers: I Want More *(cont.)*

Language and Vocabulary (10) min.

1. Write the following vocabulary words and phrases on the board or chart paper:

   greater (than) **equal** **less (than)** **more** **fewer** **same as**

2. Say, "Let's read the vocabulary terms and think about what they mean. Can we group some of the terms together by meaning?" (Greater *is similar to* more*;* fewer *is similar to* less (than)*;* equal *means* same as.)
3. Model with counters and say, "Let's use counters to describe the words. I have four counters in my left hand and eight counters in my right hand. I can say I have more counters in my right hand. I can also say that I have a greater number of counters in my right hand."
4. Say, "Now I have five counters in my left hand and six counters in my right hand. I have fewer counters in my left hand. I can also say my left hand has less than my right hand. How do I know I have fewer in my left hand?" (*Five is less than six; you can count them.*)
5. Pair up students and say, "I have four counters in each hand. I can say both hands have an equal number of counters. How do I know they are equal?" (*Four is the same as four; you can count them.*) Say, "I also can say the right hand has the same amount as the left hand. Show your partner an equal number of fingers on each hand." Invite several students to show the group an equal number of fingers on each hand.
6. You may also wish to create a big book of mathematics terms to use as an ongoing reference tool for students.

Whole-Group Lesson (40) min.

Focus

1. The following lesson will address this focus question: *How can we identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group?*
2. You may wish to write the focus question on the board and read it aloud to students. Explain that you will revisit the focus question at the end of the lesson.

Comparing Numbers: I Want More *(cont.)*

Whole-Group Lesson *(cont.)*

I Do

1. Say, "Let's use two-color counters and compare the yellow counters and the red counters. We can compare which group has more and which group has less. We may also find that the groups have an equal amount."
2. Say, "I will gently drop eight counters to see which colors are shown." Drop eight counters onto a table.
3. Say, "I will place each group in a line. I'll place the yellow counters in a line below the red counters. What do you notice?" (*One line is longer than the other or both groups have equal lines*.)
4. Say, "The red (or yellow) line of counters is longer than the yellow (or red) line" or "The lines are equal." Since the number is random, use appropriate vocabulary to fit the situation. Say, "I can check to make sure that my answer is correct by counting the two groups of counters. I will count the red counters first. There are _____ red counters. Now I will count the yellow counters. There are _____ yellow counters."
5. Say, "I can make a statement comparing these groups." Explain to students that they can use their observations and the information they have discovered to compare the two groups. Make a statement comparing the red and yellow counters. For example, "The yellow row has more counters than the red row. There are five yellow counters and three red counters. The number 5 is greater than the number 3."
6. Repeat this process by dropping eight counters, lining them up to compare them, counting for accuracy, and making a statement.

We Do

1. Refer students to the Counter Move activity sheet (*Student Guided Practice Book*, page 90). Say, "Now, let's compare more groups of different counters." Ask students to think about the focus question. Say, "How can we identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group?" Students may say to count both groups or to place the objects in each group side by side to see which group has more, less, or the same.
2. Say, "Let's try a problem together. Look at Question 1. The picture shows some red and some yellow flowers. You may use counters to model the problem, if needed. If we want to identify whether the number of red flowers is greater than the number of yellow flowers, what should we do?" Students may say to determine which row of counters is longer and to count for accuracy.

Comparing Numbers: I Want More *(cont.)*

Whole-Group Lesson *(cont.)*

We Do (cont.)

3. Ask, "Which row is longer?" (*the red row*) "Let's count the red and yellow flowers to be sure. There are four red flowers and three yellow flowers. Four is greater than three. Circle the group that has more flowers." (*four*)
4. Say, "Look at Question 2. You may use counters to model the problem, if needed. If we want to identify whether the number of red flowers is less than the number of yellow flowers, what should we do?" Students may say to determine which row of flowers is shorter to see which group has less and to count the flowers for accuracy. Say, "Count the flowers for accuracy, and circle the group that has fewer flowers."
5. Ask, "Which group has fewer flowers, red or yellow?" (*red*) "How do you know?" Students may say that they counted, and one is less than four, or they can see there are three yellow flowers left over in the rows. Ask students to turn and talk to a neighbor about the strategy they used for solving the problem.
6. Observe and listen to students' thinking as partners use the counters to solve the problem.
7. Invite several students to explain their thinking and to use their counters to show how they solved.

You Do

1. Refer students to the More, Less, or the Same? activity sheet (*Student Guided Practice Book*, page 91).
2. Say, "Now you will compare the bugs and identify which group is greater than, less than, or equal to the other group." Students may use two-color counters if needed to build the problem. Observe students' work and check for understanding, identifying how they are counting, collecting the totals, and comparing numbers.

Language Support

To check if students are clear on the meaning of the word *compare*, reinforce students' understanding by asking them to compare two groups of counters using *greater than*, *less than*, or *equal to*. You may want to begin by having students make observations about two groups of objects. Ask students to tell how the groups are similar and how they are different.

Comparing Numbers: I Want More *(cont.)*

Whole-Group Lesson *(cont.)*

Closing the Whole-Group Lesson

1. Revisit the focus question for the lesson: *How can we identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group*? Students may say to count both groups or to place the objects in each group side by side to see what group has more, less, or the same.
2. Have students share if their answer at the beginning of the lesson was correct and how the lesson added to their understanding of comparing numbers.

Progress Monitoring 5 min.

1. Have students complete the Quick Check activity sheet (*Student Guided Practice Book*, page 92) to gauge student progress toward mastery of the Learning Objectives.
2. Based on the results of the Quick Check activity sheet and your observations during the lesson, identify students who may benefit from additional instruction in the Learning Objectives. These students will be placed into a small group for reteaching. See instructions on the following page.

Comparing Numbers: I Want More *(cont.)*

Differentiated Instruction 20 min.

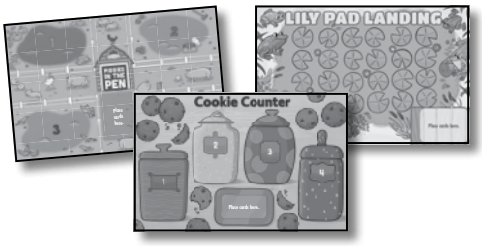
Gather students for reteaching. The remaining students will complete the Independent Practice activity sheet (*Student Guided Practice Book*, page 94) to reinforce their learning and then play the Math Fluency Games.

Refocus PPT

Revisit the focus question for the lesson: *How can we identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group*? Say, "Today, we will use connecting cubes to compare and count numbers of objects." Show students four red and five blue cubes. Say, "I am going to stack each group into a cube tower. If I put the towers side by side, what do you notice?" (*blue cube tower is taller*) Ask, "Which group has more cubes?" (*the blue tower*) "How do you know?" (*blue tower is taller*) Say, "Let's count how many we have in each group. Let's count the red cubes first: 1, 2, 3, 4. There are four red cubes. Now, let's count the blue cubes: 1, 2, 3, 4, 5. There are five blue cubes. We can say that five cubes are *greater than* four cubes, or four cubes are *less than* five cubes. We just *compared* these two groups of cubes."

Refer students to the Refocus activity sheet (*Student Guided Practice Book*, page 93). Say, "Let's look at Question 1. We will compare the stacks and decide which stack has fewer, or less, cubes. What do you notice about the two stacks? Look at the first stack. Let's count together: 1, 2, 3, 4, 5 cubes. Now, let's count the second stack of cubes: 1, 2, 3, 4, 5, 6, 7. Circle the stack that has fewer cubes." (*the first stack*) Say, "Share with your neighbor which stack you circled and why you circled it." Repeat this process for Questions 2 and 3.

Math Fluency Games



Math Fluency Game Sets

Digital Math Fluency Games

Extend Learning

Encourage students to continue developing their understanding of comparing numbers by completing the Lesson 13 Extend Learning Task (filename: extendtask13.pdf).

Comparing Numbers: I Want More *(cont.)*

Math in the Real World 30 min.

1. Refer students to the Math in the Real World: How Much Fruit? task (*Student Guided Practice Book*, page 95). Read the task aloud: *Kevin is buying fruit for his family. He buys 12 bananas. He already has 8 apples at home. He wants to have an equal number of bananas and apples. How many apples should buy?*
2. Ask students to think about what information they will need to solve the task and what the task is asking them to do. Then, have them share with a partner. Ask a few students to share aloud.
3. Have students work in groups of two or three to complete the task.
4. As students are working, circulate and ask focusing, assessing, and advancing questions:
   - *What information do you know?*
   - *How will you find out how many apples Kevin needs to buy?*
   - *How can you use a strategy to figure out your solution?*

   Have students use the Show It/Solve It/Explain It template to work out their solutions.

Sentence Frames for Explaining Reasoning

- *To solve this problem, I will _____.*
- *Kevin will need to buy _____ apples. I know this because I _____.*
- *I can use _____ to help me solve this problem.*

5. Observe how students are solving the task, and choose a few groups who solved the task in different ways to share their solutions and reasoning. Try to have the solutions move from concrete representations to more abstract representations.
6. As groups are sharing their solution paths, reasoning, and strategies, ask questions:
   - *How is this strategy similar to one we have seen in a previous task?*
   - *Do you agree or disagree with the solution path and reasoning? Why?*

Lesson Reflection 5 min.

Have students summarize their learning about comparing objects, and provide feedback on any questions they still have about the content on the Reflection activity sheet (*Student Guided Practice Book*, page 96).

LESSON 13

Name: _____ Date: _____

Counter Move

Directions: Circle the group that has more or less.

1

Which group has more? Circle it.

2

Which group has less? Circle it.

Name: _____ Date: _____

LESSON 13

More, Less, or the Same?

Directions: Count and write the number in each group. Which has more or less?

1

_____ _____

How many  ? _____ How many  ? _____

Circle the group that has more.

2

_____ _____

How many  ? _____ How many  ? _____

Circle the group that has less.

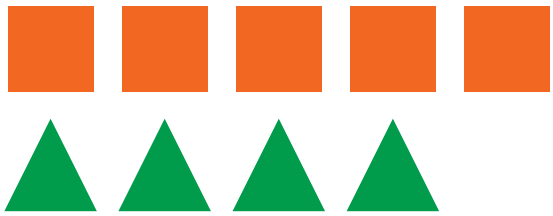
LESSON 13

Name: _____ Date: _____

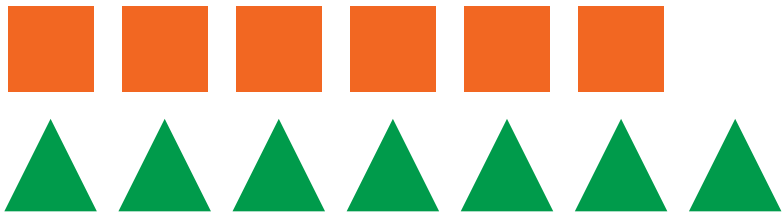
Quick Check

Directions: Count to see which group has more, less, or the same.

1. Which group has more objects? Circle the group with more.



2. Which group has fewer objects? Circle the group with less.



3. Which groups have the same number of objects? Circle the groups that are equal, or the same.

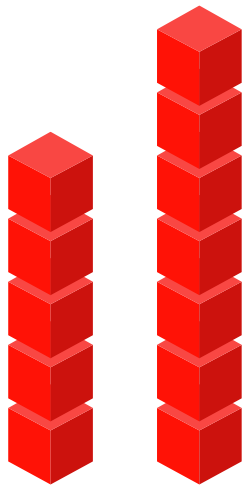
Name: _____ Date: _____

LESSON 13

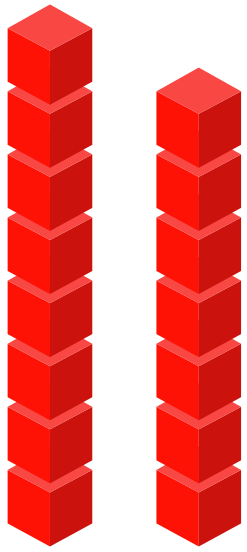
Refocus

Directions: Which group is greater than, less than, or equal to the other?

1. Circle the group that is less.



2. Circle the group that is greater.



3. Count and draw a group of cubes that is equal.

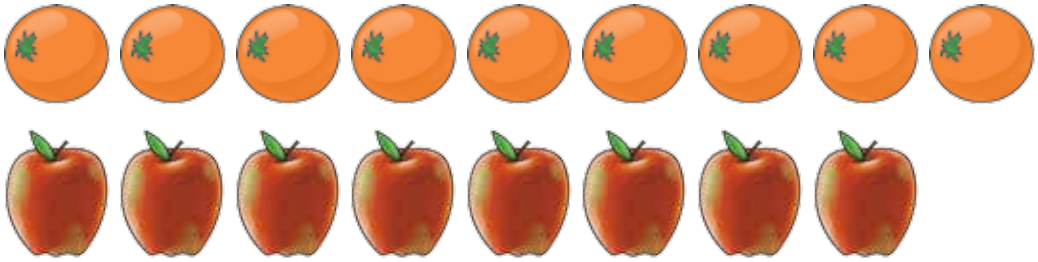
LESSON 13

Name: _____ Date: _____

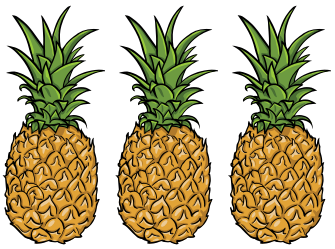
Independent Practice

Directions: Count and compare the groups of objects.

1. Circle the group that shows a greater number.



2. Circle the group that has fewer.



3. How can you make the groups equal? Draw  in the space below to show the same number as the number of lemons.

Name: _____ Date: _____

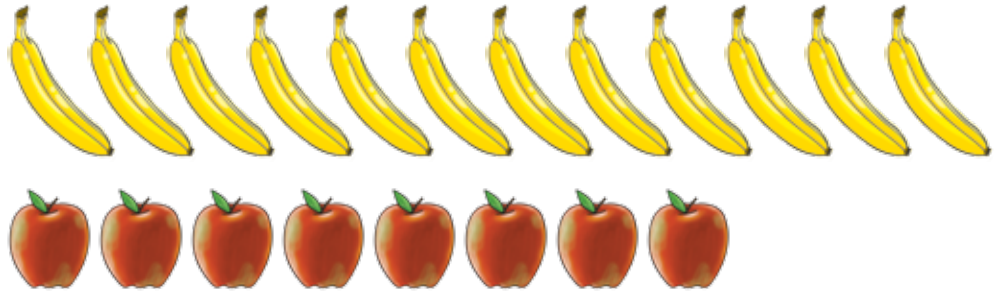
LESSON 13

Math in the Real World

How Much Fruit?

Kevin is buying fruit for his family. He buys 12 bananas. He already has 8 apples at home. He wants to have an equal number of bananas and apples. How many apples should he buy?

Show It



Solve It

Explain It

Making Predictions

Learning Objectives

Foundational Skills:

- Demonstrate understanding of the organization and basic features of print.
- Recognize and name uppercase and lowercase letters of the alphabet and their corresponding sound (*Oo*).
- Read common high-frequency words by sight.

Vocabulary: Sort common objects into categories to understand what they represent.

Reading Informational Text: Identify the front cover, back cover, and title page of a book.

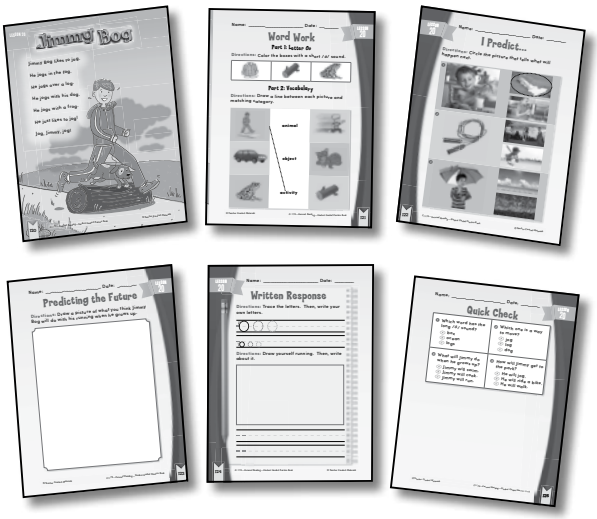
Writing: Write a story about running.

Materials

- *Student Guided Practice Book* (pages 120–125)
- *Jimmy Bog* (filename: jimmybog.pdf)
- Audio CD (Track 20)
- Literacy Game Sets
- Digital Literacy Games
- magazine photos showing action or situations with people (one per student)
- crayons
- unlined paper

Progress Monitoring

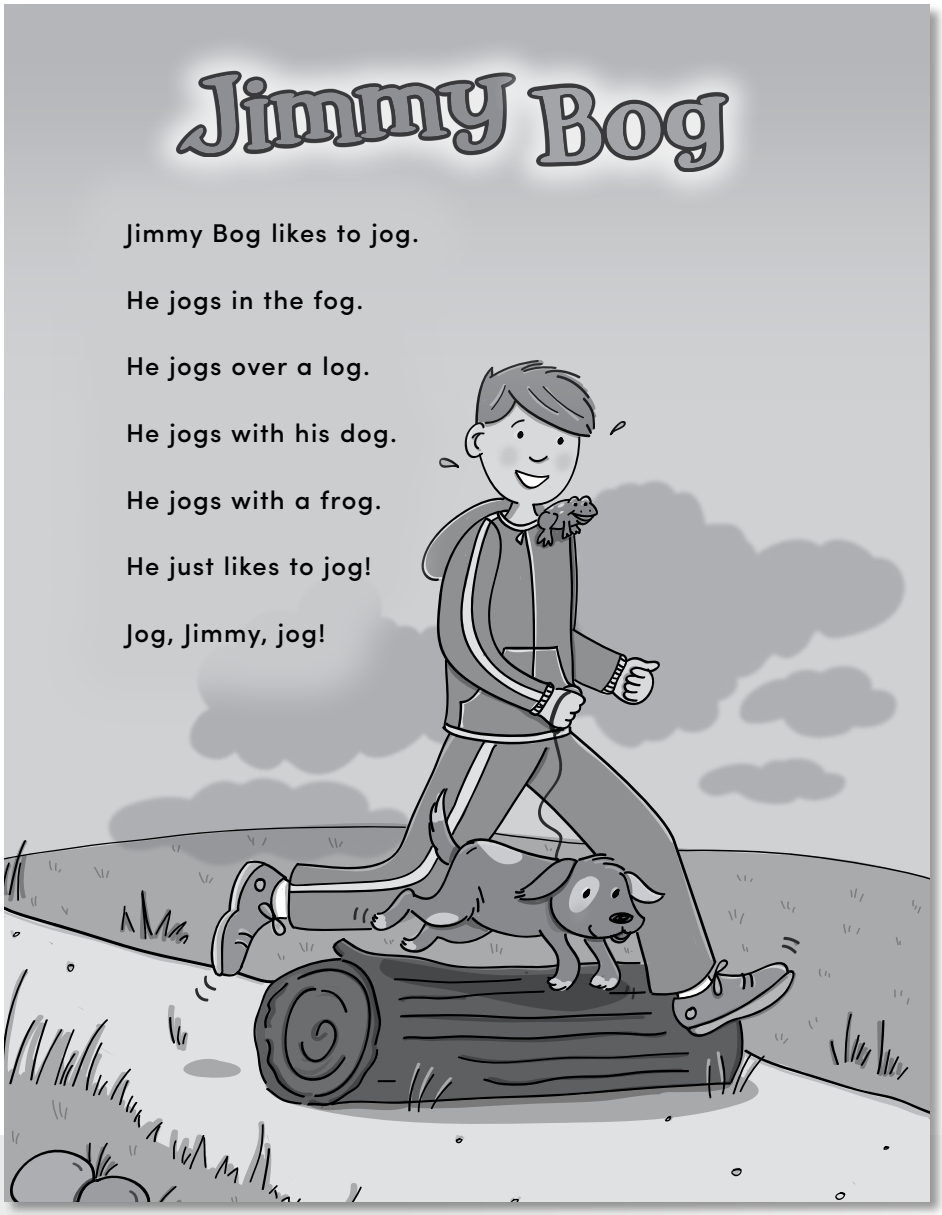
The *Student Guided Practice Book* pages below can be used to formally and informally assess student understanding of the concepts.



Skill Overview: Making Predictions

Making predictions demonstrates comprehension. As students predict what will happen in a story or what will happen after the story ends, they engage critical thinking skills. In *Jimmy Bog*, students will make predictions about a boy who loves to jog. Students will also identify the print name and sound for the letter *Oo*.

Making Predictions *(cont.)*



Warm-Up Activity 5 min.

Remind students that high-frequency words are the most commonly used words in texts. Recognition of and repeated exposure to these words is essential to fluent reading. Write the words below on the board. Read each word aloud. Then, have students read each word in a deep voice, pointing to each word as they read it. Repeat the procedure, using other voices such as an operator voice (*holding nose*), opera voice, or mouse voice (*squeaky*).

new **take** **over** **only** **good**

Making Predictions *(cont.)*

Word Work

Letter Oo 10 min.

1. Say, "Today, we're going to learn a new letter that has two different sounds. (Point out the difference between how the letter is written in uppercase and lowercase.) The letter *o* can make the short /ŏ/ sound."
2. Say, "Let's think of a word with the short /ŏ/ sound. The word *jog* has that sound in the middle." Have students make the /ŏ/ sound with you three times: /ŏ/ /ŏ/ /ŏ/.
3. Say, "Let's say some other words with that sound." (*octopus, log, dog, frog*)
4. Say, "Now, let's say the long /ō/ sound. These words begin with /ō/: *over, open, ocean*. Let's say those words."
5. Guide students as they complete Part 1 of the Word Work activity sheet (*Student Guided Practice Book*, page 121) for additional practice with the letter *Oo*.

Vocabulary 10 min.

animals **activities** **objects**

1. Say, "We can put words into categories. That means we put words into groups that are similar in some way. For example, a dog and a frog are both animals, so we can put them in a category or group called *animals*."
2. Say, "Let's think about the words *jog* and *walk*. What do these words have in common? (*They are both ways to move*.) They are both ways to move or we could say they are *activities*, ways of being active."
3. Say, "Some words just represent objects. For example, a log is not an animal, and it's not an activity. It's an object. What else can you think of that could be put in a category called *objects*." (*pencil, car, book*)
4. Guide students as they complete Part 2 of the Word Work activity sheet (*Student Guided Practice Book*, page 121) for additional practice with vocabulary.

Making Predictions *(cont.)*

Whole-Group Lesson

Before Reading 10 min.

Language Support

Explain that when someone runs at an easy pace, it is called *jogging*. Engage students in a discussion about *jogging*. *I like to jog* _____. (*to the store, after school, around the park*)

I Do

1. Say, "We can add *s* to the ends of action words to change them. *I jog. He jogs*. It would sound funny to say *I jogs* and *he jog*." Repeat with *walk/walks*.
2. Say, "We can also add *s* to the end of a word to show more than one. For example, there is one *dog* or two *dogs*. When we have more than one *log*, we have *logs*. You'll see words like this in our next story."
3. Say, "Today, we will also learn about making predictions, which means making guesses about what will happen."

We Do

1. Say, "We are going to read about a boy who likes to jog. I can predict or guess what might happen in the story."
2. Ask, "What do you think will happen?" (*He jogs around the field at school. He jogs with his dog. He jogs while he plays with his friends.*)

You Do

1. Have student pairs discuss what the boy in the story will do.

Making Predictions *(cont.)*

Whole-Group Lesson *(cont.)*

During Reading 15 min.

I Do

1. Display the PDF of *Jimmy Bog*, covering the entire text except the title. Say, "What might you guess about Jimmy Bog? What predictions can you make about him?" Also, before reading, draw students' attention to the letter *o* in *Bog* and remind students that this word makes the short /ŏ/ sound.
2. Play the professional recording from the Audio CD to model proper fluency of the passage or read aloud as students follow along, modeling how to point to each word as you read it.

We Do

1. Have students read *Jimmy Bog* (*Student Guided Practice Book*, page 120) with you as you read it aloud. Encourage students to track the words on the page with their finger.
2. Say, "We can make predictions about Jimmy Bog. For example, I wonder why he likes to jog. What do you predict about why Jimmy Bog likes to jog?" Encourage responses.
3. Say, "We can also predict why he likes to jog instead of walk or ride a skateboard. Why do you think he likes jogging as a way of getting from one place to another?" (*It's a faster way to get around. It doesn't require any special equipment. It's fun.*)

You Do

1. Guide students as they complete the I Predict… activity sheet (*Student Guided Practice Book*, page 122).

Making Predictions *(cont.)*

Whole-Group Lesson *(cont.)*

After Reading 10 min.

I Do

1. Say, "There are other predictions we can make. Remember that means we can make more guesses about Jimmy Bog."
2. Say, "I'm really curious about what Jimmy Bog might do when he grows up. I wonder if he will keep on jogging."

We Do

1. Say, "Some people who love running grow up to do things with their running. What do you think Jimmy Bog might do?" (*compete, run a marathon, go to the Olympics*)
2. Say, "We won't know the answer to this question because the story doesn't tell us, but making predictions helps us to think more deeply about the story."

You Do

1. Say, "Tell the person next to you what it means to make a prediction."
2. Assist students as they complete the Predicting the Future activity sheet (*Student Guided Practice Book*, page 123) either now or during the Differentiated Instruction portion of the lesson.

Making Predictions *(cont.)*

Writing 10 min.

Tell students to think about Jimmy Bog. Then, read aloud and discuss the prompt from the Written Response activity sheet (*Student Guided Practice Book*, page 124). You may wish to have students complete the digital version of the writing prompt found on the Digital Resources USB Device. **Note:** Discuss the prompt beforehand, brainstorming ideas to set them up for success. Depending on student ability, dictation may be required. However, students may write a sentence, one word, or a short phrase on their own. Be sure to provide some samples on the board. (*run, race, Olympics*)

Fluency Practice 10 min.

Utilize the strategy of student-adult reading. Read *Jimmy Bog* aloud to model fluent reading, including an appropriate rate, expression, and phrasing. Then, have students chorally reread it. **Note:** You may wish to play the professional recording from the Audio CD to model proper fluency.

Progress Monitoring 5 min.

1. Have students complete the Quick Check activity sheet (*Student Guided Practice Book*, page 125) to gauge student progress toward mastery of the Learning Objectives. **Note:** Depending on students' abilities, you may wish to read the multiple-choice questions and answer choices aloud.
2. Based on the results of the Quick Check activity sheet and the teacher's observations during the lesson, organize students into groups and continue with the Differentiated Instruction support and the Literacy Games.

Assessment Opportunity

Have students complete a timed reading of the passage. This passage has 33 words. See pages 16–17 of the *Assessment Guide* for instructions and the fluency rubric.

Making Predictions *(cont.)*

Differentiated Instruction 35 min.

While the teacher meets with each group below, the remaining students will play the Literacy Games.

Reteach

1. Remind students that making a prediction means guessing what might happen. Say, "When we make predictions, we use clues that help us make our guesses."
2. Say, "Imagine that you walked outside. You saw dark clouds in the sky and the wind started to blow. What prediction might you make about what will happen with the weather?" *I predict* _____. (*it might rain; there might be a storm.*) Engage students in a discussion about their reasoning behind their predictions.

Reinforce

1. To practice making predictions, provide each child with a magazine photo showing some kind of action or situation with people.
2. Encourage students to look at their photos and make predictions about what is about to happen. *I predict* _____.

Literacy Games

Divide students into groups. Assign each group to one game. For instructions on how to organize, manage, and play the Literacy Games, see pages 30–34.

Literacy Game Sets

Digital Literacy Games

Extend Learning

Have students create a drawing of themselves doing something they enjoy. Invite students to exchange papers and predict what is about to happen.

Jimmy Bog

Jimmy Bog likes to jog.

He jogs in the fog.

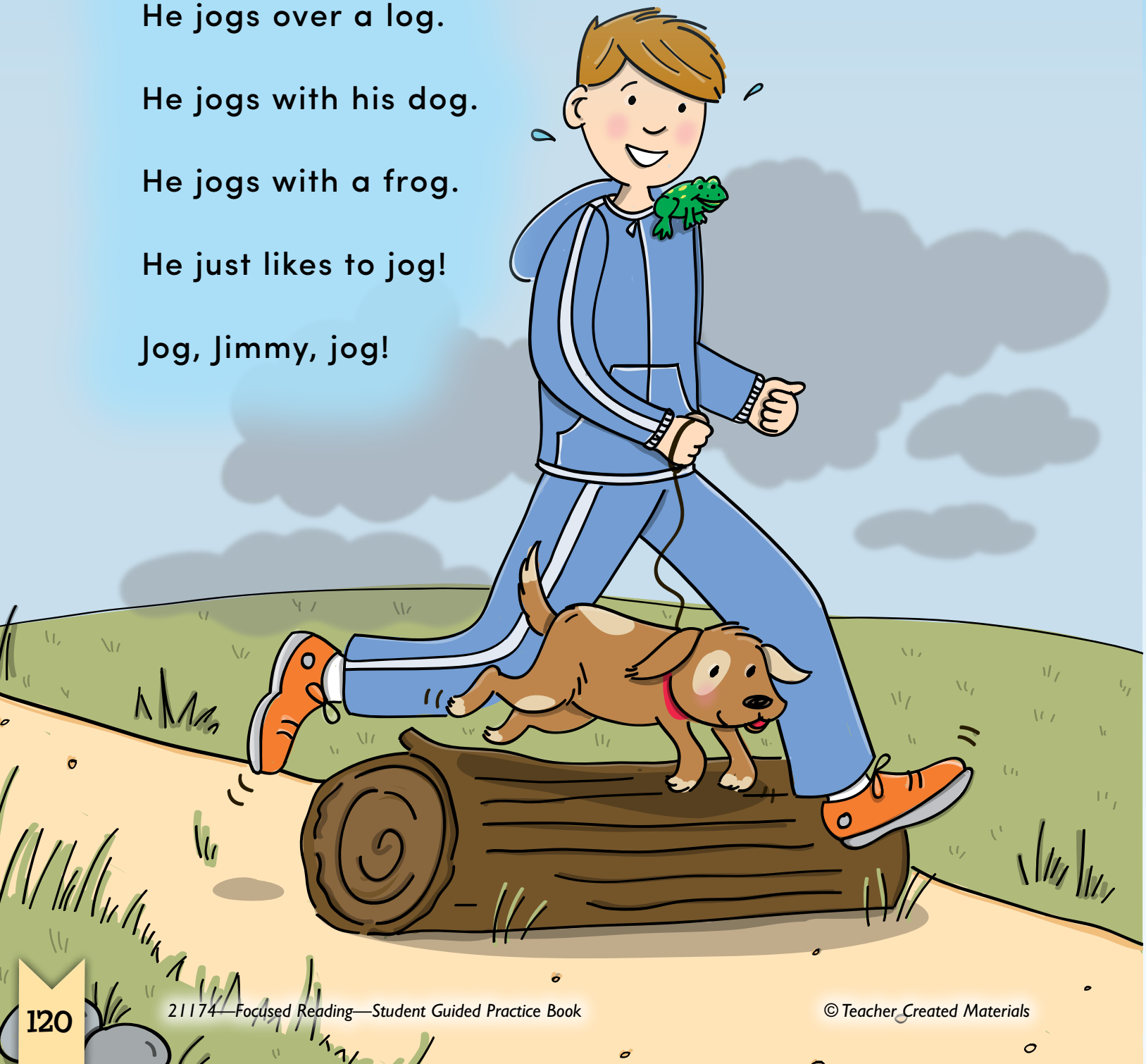
He jogs over a log.

He jogs with his dog.

He jogs with a frog.

He just likes to jog!

Jog, Jimmy, jog!



Name: _____ Date: _____

LESSON 20

Word Work

Part 1: Letter *Oo*

Directions: Color the boxes with an /ŏ/ sound.

Part 2: Vocabulary

Directions: Draw a line between each picture and matching category.

---------- **activity**

object

animal

LESSON 20

Name: _____ Date: _____

I Predict...

Directions: Circle the picture that tells what will happen next.

1

2

3

Name: _____ Date: _____

LESSON 20

Predicting the Future

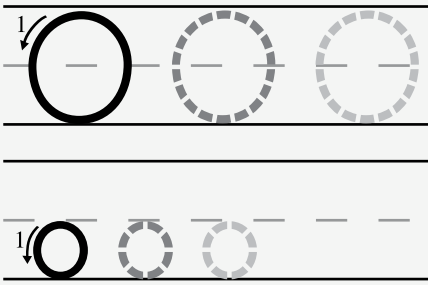
Directions: Draw a picture of what you think Jimmy Bog will do with his running when he grows up.

LESSON 20

Name: _____ Date: _____

Written Response

Directions: Trace the letters. Then, write your own letters.



Directions: Draw yourself running. Then, write about it.

Name: _____ Date: _____

LESSON 20

Quick Check

1 Which word has the /ō/ sound? (A) box (B) ocean (C) logs	2 Which one is a way to move? (A) jog (B) log (C) dog
3 What will Jimmy do when he grows up? (A) Jimmy will swim. (B) Jimmy will cook. (C) Jimmy will run.	4 How will Jimmy get to the park? (A) He will jog. (B) He will ride a bike. (C) He will walk.