

Eureka Math

Kindergarten Module 3 Lesson 9

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Directions for customizing presentations are available on the next slide.



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Reflecting your Teaching Style and Learning Needs of Your Students

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Icons



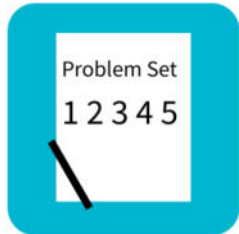
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



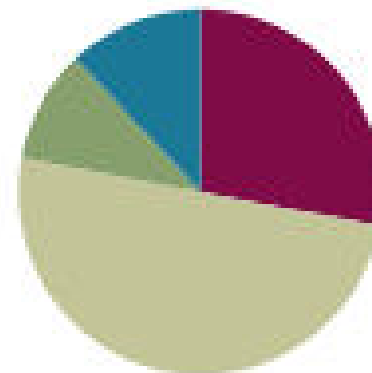
Small Group Time

Lesson 9

Objective: Compare objects using *heavier than*, *lighter than*, and *the same as* with balance scales.

Suggested Lesson Structure

■ Fluency Practice	(14 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(6 minutes)
Total Time	(50 minutes)





Materials Needed

Teacher

- Large 5-group cards (5-7)
- Lesson 5 fluency template 1
- Lighter or heavier recording sheet (Template) affixed to the white board



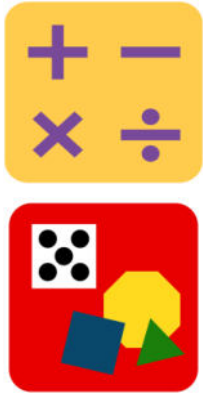
Materials Needed

Students

- (S) Simple balance scale and assortment of objects such that each small group of students has at least three things to compare (include some objects that are the same weight)
- lighter or heavier recording sheet(Template)
- Hidden numbers mat (lesson 3)
- Die with 6-dot side covered
- Personal white board

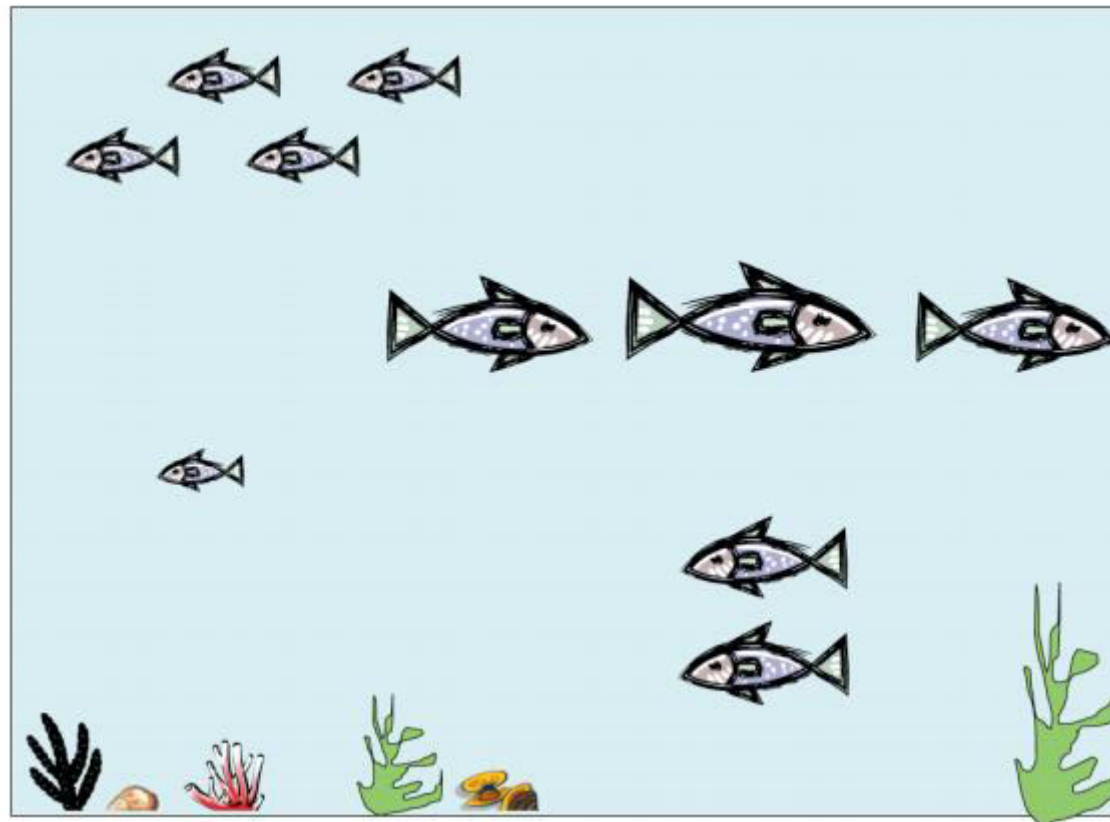


I can compare using *heavier than*, *lighter than*, and *the same as* with balance scales.



Hidden Numbers-5 min

Conduct the activity as described in Lesson 3; however, this time, guide students to find hidden numbers within a group of 8.



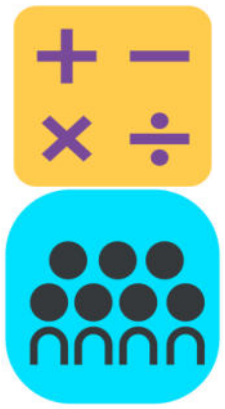


5-Group Hands-4 min

(Show the 6-dot card.) Raise your hand when you know how many dots are on top. (Wait until all hands are raised, and then signal.)

Ready?

T: Bottom?



5-Group Hands

We can show this 5-group on our hands. 5 on top: 1 on the bottom, like this. (Demonstrate on hands, one above the other.)

T: Push your hands out as you count on from 5, like this: 5 (extend the top hand forward), 6 (extend the bottom hand forward). Try it with me.





Roll and Draw 5- Groups-5 min.

Roll the die, count the dots, and then draw the number as a 5-group.

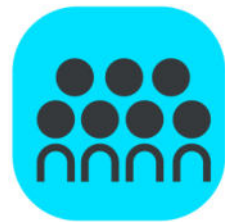


Application Problem

5 min

I am lighter than _____, but I am heavier than _____.

Draw two things on your paper that would make this sentence true for you. Show your pictures to your partner. Does he or she agree with you? How much do you think you weigh?



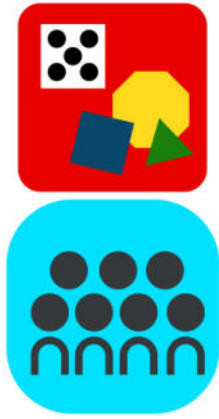
Concept Development

25 min.

Sometimes when we are comparing the weights of things that are almost the same, it is hard to tell which is lighter and which is heavier.

Can you give me an example from yesterday?

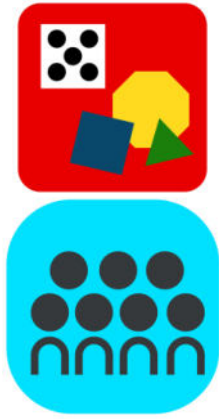
Was it sometimes hard to tell which thing was heavier?



Concept Development

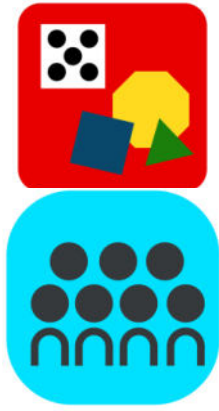
We have a special tool that can help us find out which object is lighter and which is heavier or if they are the same weight. It is called a balance scale or a balance. (Display the balance scale. Ask students what they know about the balance.)





Concept Development

If I were to put the cotton balls on this side (point to one side of the balance) and the eraser on the other side (point), what would happen?

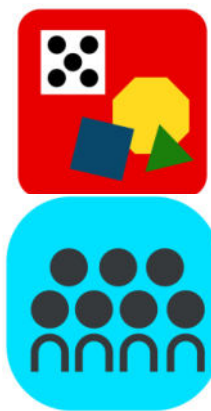


Concept Development

Let's test your guess. (Demonstrate.) You were right!

The balance scale shows us that the eraser is heavier than the cotton balls. It shows us that the cotton balls are lighter than the eraser.

I will draw the cotton balls and the eraser in the right places on the lighter or heavier recording sheet.
(Demonstrate.)

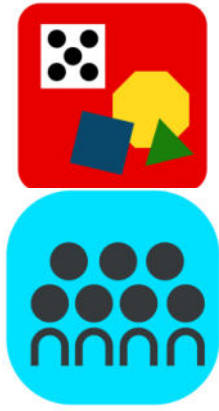


Concept Development



Lighter

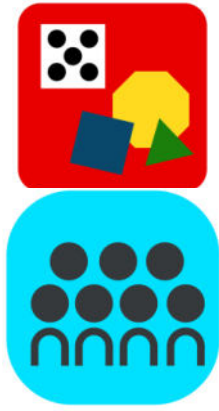
Heavier



Concept Development

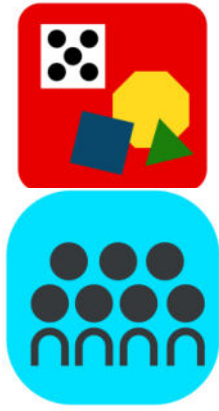
In your small groups, you will be comparing the weights of several pairs of things. You will take turns.

1. Student A chooses two things to compare.
2. Test them first by just holding them and silently guessing which will be heavier.
3. Pass them around so your friends get a chance to guess, too!



Concept Development

4. Student A puts one object on one side of the balance and the other object on the other side of the balance to test the guesses.
5. All of you will record the results on your own lighter or heavier recording sheet.
6. Then, it will be the next student's turn to choose.

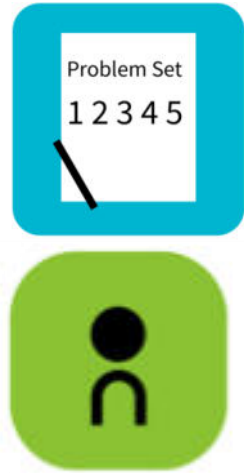


Concept Development

Put your balances away.

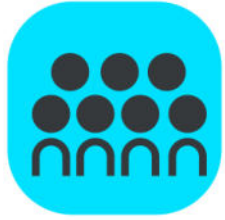
What did your group discover? Were there any surprises?

Did anyone find some objects that were the same weight? How did you know? (Allow time for discussion.)



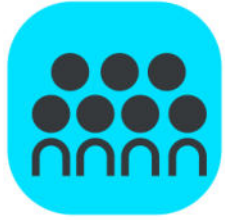
Problem Set-10 min

In this lesson, the Problem Set is replaced with the lighter or heavier recording sheet to be used during the Concept Development.



Debrief-6 min.

Lesson Objective: Compare objects using *heavier than*, *lighter than*, and *the same as* with balance scales.



Debrief

- Why is a balance scale helpful?
- Which objects did you record as heavier than?
- Which ones were lighter than?
- Did you find any objects that were about the same weight?
- Were you surprised by anything you discovered in the activity?
- Explain to your friend which objects you recorded as being lighter or heavier. Did you have the same answer as your friend?