

## Teacher Guide for the Lesson on **least to greatest**

### Standard:

6.2(C)

### Content Objective:

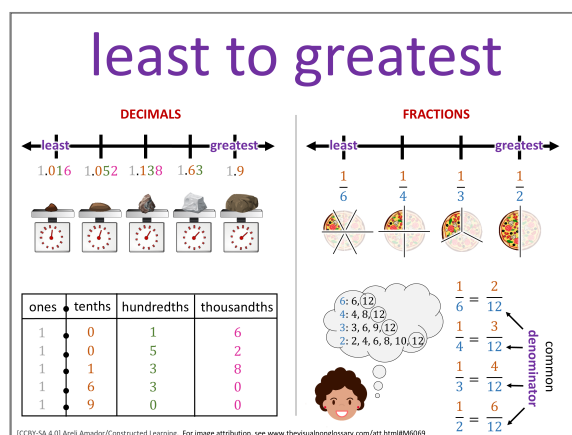
We can locate, compare, and order **integers** and **rational numbers** from **least to greatest** using number lines and models.

**Language Objective:** Answer the following question in complete sentences using the sentence stem and the key vocabulary of the lesson:

How can you arrange negative **integers** from **least to greatest**?

*I can arrange negative **integers** from **least to greatest** by...*

**Other key vocabularies:** [greater than](#), [integer](#)



### By studying this visual, students might:

| Notice                                                                                                                 | Wonder                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>The numbers are arranged least to greatest from smallest to largest.</li> </ul> | <ul style="list-style-type: none"> <li>How do I know which is least to greatest when comparing decimals?</li> </ul> |
| <ul style="list-style-type: none"> <li>The weights and pizza slices show how values change in size.</li> </ul>         | <ul style="list-style-type: none"> <li>Why are common denominators important when comparing fractions?</li> </ul>   |
| <ul style="list-style-type: none"> <li>The fractions are shown in order from least to greatest.</li> </ul>             | <ul style="list-style-type: none"> <li>Can a negative number ever be the greatest?</li> </ul>                       |
| <ul style="list-style-type: none"> <li>The decimal place values are organized in a chart.</li> </ul>                   | <ul style="list-style-type: none"> <li>What if different forms have the same value?</li> </ul>                      |
| <ul style="list-style-type: none"> <li>Some numbers look different but represent the same value.</li> </ul>            | <ul style="list-style-type: none"> <li>How do I decide when to use models, number lines, or place value?</li> </ul> |

## EXTENDING THE DISCUSSION

- After randomly calling on students, if there is anything from this list that was not mentioned, then ask the class, "Did anyone notice...?"
- After students have shared what they notice, ask the class, "Did anyone wonder...?" using the suggestions above or anything else you might think is interesting or relevant to the lesson.

### Structured Conversation Prompts

| OBSERVATIONAL                                                                                                   | RELATIONAL                                                                                                                                                                                               | INFERENTIAL                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What does the phrase " <b>least to greatest</b> " mean?<br><br>The phrase " <b>least to greatest</b> " means... | How is the phrase " <b>least to greatest</b> " related to the phrase " <b>greater than</b> "?<br><br>The phrase " <b>least to greatest</b> " is related to the phrase " <b>greater than</b> " because... | How can you arrange negative <b>integers</b> from <b>least to greatest</b> ?<br><br>I can arrange negative <b>integers</b> from <b>least to greatest</b> by... |

### Example Student Responses to the Observational Question

| Low-Level                                                          | High-Level                                                                                                                                                                                           |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The phrase " <b>least to greatest</b> " means smallest to biggest. | The phrase " <b>least to greatest</b> " means organizing numbers in order by their value, starting with the smallest and ending with the largest, whether they are decimals, fractions, or integers. |

## RESPONDING TO RESPONSES

Emphasize and celebrate each student's use of the key vocabulary to support a culture of "no wrong answers."

## STRUCTURING STUDENT CONVERSATIONS

Have students list observations from the visual as a warm-up, then use the Q-SSS-A process to guide small-group conversations. In the slide decks, brackets can be moved to prepare the structured conversation. In the example to the right, students will be instructed: [Q-SSS-A](#).

- To put a thumb up, then lower their hand when they are ready to answer the question
- To share with their elbow/shoulder partner, and that the student with the darkest shoe will share first
- That they will be randomly called on after the conversation



[Here is an example](#) of structuring a conversation with Q-SSS-A.

*Note: the inferential question is the same as the language objective. It is recommended that students answer the inferential question in a small-group discussion before answering it individually as the closure or exit ticket of the lesson.*

### Structured Reading

| READING PURPOSE                                                                                                                                                           | PAT LIST                                                                                                                                                                                                                                                                                                           | POST-READING DISCUSSION                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The purpose for reading is to explore what <b>least to greatest</b> means and how we can arrange decimals, fractions, and negative <b>integers</b> using math strategies. | <ul style="list-style-type: none"> <li>• The meaning of least to greatest</li> <li>• How to compare fractions with different denominators</li> <li>• How decimal place value helps compare numbers</li> <li>• What to do when comparing negative integers</li> <li>• How a number line helps show order</li> </ul> | <p>Why might someone need to organize negative numbers from <b>least to greatest</b> in real life, and how could they do it?</p> <p><i>In real life, someone might need to order negative numbers from <b>least to greatest</b> when... They could do this by...</i></p> |

## STRUCTURING THE READING

Communicate the purpose of reading to the students and instruct them to make a note every time they see something on the PAT ("Pay Attention To") list. How you have students note items on the

PAT list is up to you. This could include:

- Putting an asterisk in the margin
- Underlining text that supports the PAT list
- Putting a comment in the margin

Follow the reading with the post-reading discussion. Structure this discussion using the Q-SSS-A process just like the structured conversations in this lesson.

*Note: you might find the relational question is better discussed before or after the reading. This depends on whether the relational question is directly related to the reading or might make connections across units.*

## DIFFERENTIATING THE READING

You will notice that three different reading passages are provided with this lesson. Look at the shapes in the top-left of each passage to determine the grade level.

| BELOW GRADE LEVEL                                                                                                   | ON GRADE LEVEL                                                                                                    | ABOVE GRADE LEVEL                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <br><i>Triangle is bottom-left</i> | <br><i>Square is bottom-left</i> | <br><i>Circle is bottom-left</i> |

In a class with students at diverse reading level proficiencies, you can give the appropriate reading passage to different students, while having all students follow the same PAT list and post-reading discussion.