

## ESTABLISHING PURPOSE

1

What are the key content standards I will focus on in this lesson?

Virginia Mathematics Standards of Learning

4.3. The student will (a) read, write, represent, and identify decimals expressed through thousandths; (c) compare and order decimals; and (d) given a model, write the decimal and fraction equivalents.

Mathematical Process Standards:

- Mathematical connections
- Mathematical problem solving
- Mathematical representations

2

What are the learning intentions (the goal and *why* of learning stated in student-friendly language) I will focus on in this lesson?

- Content: I am learning to understand the relationship between equivalent fractions and decimals.
- Language: I am learning to understand the language of equivalent fractions and decimals on a length/linear model.
- Social: I am learning to understand how to persevere and attend to precision by relying on each other's mathematical reasoning and questioning.

3

When will I introduce and reinforce the learning intention(s) so that students understand it, see the relevance, connect it to previous learning, and can clearly communicate it themselves?

- Post learning intentions
- Notice and wonder about learning intentions
- Make connections during worked example evaluation, conferences, and sharing
- Gems and Opportunities team reflection

## SUCCESS CRITERIA

4

What evidence shows that students have mastered the learning intention(s)? What criteria will I use?

I can statements:

- I can identify equivalent fractions and decimals and count by fractions and decimals.
- I can precisely measure and label fraction and decimal distances on a number line.
- I can name benchmark fractions and their equivalent decimal benchmarks.
- I can use fraction, decimal, and place value language to describe the equivalent values.

5

How will I check students' understanding (assess learning) during instruction and make accommodations?

Formative Assessment Strategies:

- Success criteria conference checklist
- Racecourse draft
- Gems and Opportunities team reflection

Differentiation Strategies:

- Differentiate the content and product by interest: Create a scale. Create a sixth station.
- Differentiate the process by readiness: Create small groups using alternate group ranking.

## INSTRUCTION

6

What activities and tasks will move students forward in their learning?

- Quick images
- Worked example evaluation
- Modeling
- Color Run small group task
- Gems and Opportunities draft sharing
- Gems and Opportunities team reflection

7

What resources (materials and sentence frames) are needed?

Quick images

Worked example (last year's Color Run course)

Anchor charts of equivalencies

Language frames

Cuisenaire rods

Fraction bars

Base-ten blocks

10 × 10 grids

Graph paper

Open number lines and whiteboard markers

Colored pencils

Calculators

## 8

How will I organize and facilitate the learning? What questions will I ask? How will I initiate closure?

Instructional Strategies:

- Worked example
- Self-evaluation
- Anticipate, monitor, select, sequence, and connect students' strategies
- Turn and talk

Scaffolding Questions:

- What is an equivalent fraction and/or decimal? How do you know?
- What would this fraction/decimal look like on a  $10 \times 10$  grid?

Extending Questions:

- How many stations will there be per kilometer?
- How many meters is 0.15 km?
- What if the track was 10 km long?
- What if the track was out-and-back? How would the station locations change?

Connecting Questions:

- Compare your scale to the sharing team's scale. What unit represents what fraction of a kilometer? How did this help you to be precise in your measurements?
- Make a list of benchmark fractions that you labeled and their equivalent decimal benchmarks. How could you prove these are equivalent?
- Think about the fraction, decimal, and place value language you used while working. How is the place value language connected to the decimal and fraction language? Why?

Self-Reflection and Self-Evaluation for Closure:

- Gems and Opportunities team reflection