MISSISSIPPI DEPARTMENT OF EDUCATION
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EXEMPLAR Units & Lessons

MATHEMATICS

Grade 4

Grant funded by:
W.K. KELLOGG FOUNDATION

Lesson 6: Mathletes: Olympic Trials

Focus Standard(s): 4.NF.6, 4.NF.7

Additional Standard(s): W.4.2

Standards for Mathematical Practice: SMP.4, SMP.5, SMP.6

Estimated Time: 135 minutes (3 days)

Resources and Materials:

- Garbage Can
- Painter's Tape
- Paper
- Straws
- Handout 6.1: Olympic Trials
- Handout 6.2: Newspaper Article

Lesson Target(s):

- Students will explore using decimal fractions through their performance task.
- Students will write an article detailing the Olympic Trials for their country.

Guiding Question(s):

- How can understanding decimal fractions help in real-world situations?
- How can you use tools and manipulatives to better understand decimal fractions?

Vocabulary

Academic Vocabulary:	Instructional Strategies for Academic Vocabulary:
• Decimal fractions • Decimal number • Equivalent • Hundredths • Tenths	☐ Write/discuss using the words **Note:** Vocabulary instruction should be embedded into the lesson each day using the strategy suggested above.

Symbol	Type of Text and Interpretation of Symbol
	Instructional support and/or extension suggestions for students who are EL, have disabilities, or perform well below the grade level and/or for students who perform well above grade level
✓	Assessment (Pre-assessment, Formative, Self, or Summative)

Instructional Plan

Understanding Lesson Purpose and Student Outcomes:
Students will compete in Olympic trials and then work with their country to represent and order decimal fractions using a variety of methods.

Anticipatory Set/Introduction to the Lesson:
Divide the students into their country groups and give them their fraction flags created during centers on the previous day. Explain to them that they will all now be competing in their own Olympic Trials (SMP.4, SMP.5, SMP.6). Distribute **Handout 6.1: Olympic Trials** to each country/group to record their results.

Activity 1: Javelin Throw
Lead students to the painter's tape number line. (This number line should already be sectioned into tenths and measured as meters). One-by-one, provide each student with a straw. Have them stand at the starting line and throw their straw as far as possible. Allow the student's teammates to help measure and record the throw on the table found in **Handout 6.1: Olympic Trials.**

Note: If you prefer to host the games outside, the number line can be created easily using sidewalk chalk.

Activity 2: Basketball Toss
For this activity, students will attempt 10 shots into the garbage can using balls of paper. Their teammates will assist in counting and recording the number of shots made onto the table found in **Handout 6.1: Olympic Trials.**

Note: If you have access to the gymnasium, students can use basketballs and basketball goals for this event.

Activity 3: Tallest Tower
For this activity, provide students with 100 unit blocks. Have them build the tallest tower possible. Have them record the final number of units used before the tower collapses on **Handout 6.1: Olympic Trials.**

Note: To save time, allow multiple students to do this around the room and appoint classroom judges to assist in counting and recording their total.

Activity 4: Teamwork
Have students work together to complete **Handout 6.2: Newspaper Article.** Provide students with support as needed through the use of tools and manipulatives.

Note: Collaboration with the ELA teacher is highly recommended to ensure that students can write informational articles.

Reflection and Closing:
- ✓ Review the performance task and allow students to share their results with the class.

Homework

Instruct students to study and prepare for their final assessment.

Handout 6.1: Olympic Trials

	Javelin Throw	Basketball Toss	Tallest Tower

Handout 6.2: Newspaper Article

The Title of Your Paper

Volume 1 City Date

HEADER GOES HERE

DESCRIPTIVE SUBTITLE GOES HERE.

Insert picture of the team, country, or country's flag.

Caption related to picture

Summarize the tallest tower event. Identify the team scores as decimal fractions and fractions. List the team's rankings from least to greatest.

Caption related to the picture below.

Tallest Tower

Insert Picture of Teammate building the winning tower.

Basketball Throw

Insert table ranking scores from highest to lowest showing the fractions with a denominator 10 and denominator 100.

Caption related to the winner of the event above.

Summarize the basketball throw event. Identify the team scores as fractions with denominators of 10 and 100. Then state both fractions as decimal fractions. Explain which place value determined the winner of this event.

Summarize the javelin throw event. Identify the team scores as decimal fractions Explain which place value determined the winner of this event.

Caption related to the winner of the event below.

Javelin Throw

Insert a number line, plotting a point for each team members' score. Label using decimal fractions.

For training or questions regarding this unit, please contact one of the following:

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