

Lesson 18: Two Truths and a Lie (Optional)

Standards Alignments

Addressing 4.MD.A.1, 4.OA.A.2

Teacher-facing Learning Goals

- Analyze, describe, and represent multiplicative comparison situations.
- Convert from larger units to smaller units within a given system of measurement.
- Solve problems involving multiplicative comparison and measurement.

Student-facing Learning Goals

- Let's compare facts about animals.

Lesson Purpose

The purpose of this lesson is for students to apply their understanding of multiplication and measurement conversion to compare facts about animals.

This lesson is optional because it does not address any new mathematical content standards. This lesson does provide students with an opportunity to apply precursor skills of mathematical modeling. In this lesson, students write true and false statements involving multiplicative comparisons and unit conversions. They have an opportunity to choose the animals to compare and which facts to use.

Then, students determine which of their classmates' statements are true and which are false. At the end of this activity, they have an opportunity to revise their earlier statements to make them clearer or stronger. As students discuss and justify their decisions, they share a mathematical claim and the thinking behind it (MP3).

Access for:

Students with Disabilities

- Representation (Activity 2)

English Learners

- MLR2 (Activity 1)

Instructional Routines

Notice and Wonder (Warm-up)

Materials to Gather

- Index cards: Activity 1
- Sticky notes: Activity 2
- Tape: Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	20 min
Lesson Synthesis	10 min

Materials to Copy

- Facts About Animals (groups of 2): Activity 1

Teacher Reflection Question

What aspects of today's lesson allowed each of your students to see themselves as capable and competent in reasoning mathematically?