

# Mathematics A: Number and Number Relationships

## Figure That

### Idaho Content Standards- Science (ICSS):

- n/a

### Math Common Core State Standards (Math-CCSS):

- 4.NF.A.1 Explain why a fraction  $a/b$  is equivalent to a fraction  $(n \times a)/(n \times b)$  by using visual fraction models.
- 5.NF.B.3 Interpret a fraction as division of the numerator by the denominator.
- 6.RP.A.3.C Find a percent of a quantity as a rate per 100.

### Next Generation Science Standards (NGSS):

- 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraint on materials, time, or cost.

### English Language Arts Common Core State Standards (ELA-CCSS):

- RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- RF.5.3.A Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
- RF.5.4 Read with sufficient accuracy and fluency to support comprehension.
- RF.5.4.A Read on-level text with purpose and understanding.
- SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- SL.5.1.B Follow agreed-upon rules for discussions and carry out assigned roles.
- SL.5.1.C Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- SL.5.1.D Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- SL.5.4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

## Finding the Percent

### ICSS:

- PS1-5-1 Develop a model to describe that matter is made of particles too small to be seen.

### Math-CCSS:

- 4.NF.A.1 Explain why a fraction  $a/b$  is equivalent to a fraction  $(n \times a)/(n \times b)$  by using visual fraction models.
- 4.NF.C.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100.
- 4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100.
- 5.NBT.A.4 Use place value understanding to round decimals to any place.
- 5.NF.B.3 Interpret a fraction as division of the numerator by the denominator.
- 6.RP.A.3.C Find a percent of a quantity as a rate per 100.

**NGSS:**

- 5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen.

**ELA-CCSS:**

- SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- SL.5.1.B Follow agreed-upon rules for discussions and carry out assigned roles.
- SL.5.1.C Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- SL.5.1.D Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- SL.5.4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- L.5.4.B Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).

## **Fingerprint Analysis**

**ICSS:**

- n/a

**Math-CCSS:**

- 3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.
- 5.NBT.A.4 Use place value understanding to round decimals to any place.
- 5.NF.B.3 Interpret a fraction as division of the numerator by the denominator.
- 6.RP.A.3.C Find a percent of a quantity as a rate per 100.
- 6.SP.B.5.A Summarize numerical data sets in relation to their context; reporting the number of observations.

- 6.SP.B.5.B Summarize numerical data sets in relation to their context; describing the nature of the attribute under investigation, including how it was measured and its units of measurement.

**NGSS:**

- n/a

**ELA-CCSS:**

- SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- SL.5.1.B Follow agreed-upon rules for discussions and carry out assigned roles.
- SL.5.1.C Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- SL.5.1.D Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- SL.5.4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

## **Egbert Extension Activities**

**ICSS:**

- PS3-MS-1 Construct and interpret graphical displays of data to describe the relationship of kinetic energy to the mass of an object and to the speed of an object.

**Math-CCSS:**

- 5.NBT.B.7 Add, subtract, multiply, and divide decimals to the hundredths.
- 5.NBT.A.4 Use place value understanding to round decimals to any place.
- 5.NF.B.3 Interpret a fraction as division of the numerator by the denominator.
- 6.RP.A.3.C Find a percent of a quantity as a rate per 100.

**NGSS:**

- 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraint on materials, time, or cost.
- 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
- MS-PS3-1 Construct and interpret graphical displays of data to describe the relationship of kinetic energy to the mass of an object and to the speed of an object.

## **ELA-CCSS:**

- RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- RF.5.4 Read with sufficient accuracy and fluency to support comprehension.
  
- SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- SL.5.1.B Follow agreed-upon rules for discussions and carry out assigned roles.
- SL.5.1.C Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- SL.5.1.D Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
- SL.5.4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.