**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 x a)/ (n x 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 x a)/ (n x 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.

**Eggbert 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.

**Atmospheric Ratios**

**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.

**My Ratio is Sinking**

**ICSS:**

* n/a

**Math-CCSS:**

* 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams, kilograms, and liters.
* 4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; L, mL; h, min, sec.
* 4.MD.A.2. Use the 4 operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as a number line that features a measurement scale.
* 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.