### Math - Percentages Unit Organizer

**6th Grade Core Knowledge - Huey/Duroux/Canfield**

**Summary**

Students will understand that percentages are some number out of 100. Students will be able to change from a percentage to a decimal to a fraction and vice versa. In addition, students will use percentage concepts in real-life problems such as calculating raises, tips, and tax on items. Students will demonstrate their knowledge of percentages by completing various quizzes, homework assignments, and the unit assessment.

**The Big Idea**

In mathematics, percentages are some number out of 100 and can be expressed as decimals and fractions. Percentages can then be used in a variety of real life applications such as purchasing sale items, investing, and saving.

**Colorado State Standards**

*(same as Common Core since they were adopted by Colorado for math)*

**Common Core Standards**

**MA 6.1.1.c.iv -** Find a percent of a quantity as a rate per 100. (CCSS: 6.RP.3c).

**MA 6.1.1.c.v -** Solve problems involving finding the whole, given a part and the percent. (CCSS: 6.RP.3c)

**MA 6.1.1.c.vi** - Use common fractions and percentages to calculate parts of whole numbers in problem situations including comparisons of savings rates at different financial institutions (PFL)

**L.6.6** - Students will acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

**Core Knowledge Unit**

**Percent**

• Convert between fractions, decimals, and percents.

• Find the given percent of a number, and find what percent a given number is of another number.

• Solve problems involving percent increase and decrease.

• Find an unknown number when a percent of the number is known.

• Use expressions with percents greater than 100% and less than 1%

**Core Knowledge Language Arts**

• Participate civilly and productively in group discussions.

**Previous Unit:**

Ratios

**Prior Knowledge:**

**Grade 5**

• Recognize the percent sign (%) and understand percent as “per hundred.”

• Express equivalences between fractions, decimals, and percents, and know common equivalences: 110 = 0% ¼ = 25% ½ = 50% ¾ = 75% • Find the given percent of a number.

• Understand probability as a measure of the likelihood that an event will happen; using simple models, express probability of a given event as a fraction, as a percent, and as a decimal between 0 and 1.

**Next Unit:**

Speed & Rate

**What Students Will Learn in Future Grades:**

Ratios, Percentages and Proportions Unit in pre-Algebra

Proportional Relationships Unit in Algebra 1

**Cross Curricular Links**

CK Vocabulary: centum [L] hundred cent, percent

**Additional Resources:**

*For Teachers:*

*Handbook for Primary Mathematics Teachers,*Marshall Cavendish Int (S) Pte Ltd, Singapore