

Common Core Classroom Connections

Chapter Five

Section 5.1

14. Common Core (website: <http://www.corestandards.org/Math> or app)
 - a. According to the *Common Core State Standards*, at what grade level are students expected to have mastered integer operations?
 - b. Pick one integer operation problem done in class or as homework that you believe employs one or more processes from the *CCSS Mathematical Practices*. Describe the problem and explain how the problem addresses the *Mathematical Practice* you have picked.

Section 5.2

15. Common Core (website: <http://www.corestandards.org/Math> or app)
Read through Example R on page 300 in your text.
 - a. What Grade 4 standard from the *Common Core State Standards* is addressed in this example? Summarize this standard in your own words.
 - b. List each of the *CCSS Mathematical Practices* you believe are illustrated in Example R. Explain how they apply.

Section 5.3

16. Common Core (website: <http://www.corestandards.org/Math> or app)
Read the *Common Core* content standard 5.NF.5b.
 - a. Summarize the meaning of this standard in your own words.
 - b. Use detailed diagrams of Fraction Bars with explanation to show step-by-step how you can illustrate this standard.

Common Core Classroom Connections**Chapter Six****Section 6.1**

17. Common Core (website: <http://www.corestandards.org/Math> or app)
- The grade-five standard in 5.NBT.3 says, “Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons”. Use the Decimal Square models for .229 and .230 to illustrate the meaning of this standard.
 - Content standard 5.NBT.4 says, “Use place value understanding to round decimals to any place.” Use the Decimal Square model to illustrate this standard by explaining how to round .249 to the nearest hundredth, then how to round .249 to the nearest tenth.

Section 6.2

18. Common Core (website: <http://www.corestandards.org/Math> or app)

By the end of grade 5 students are expected to attain content standard 5.NBT.7. Show how the Decimal Square diagram for $.80 \div 4$ on page 372 of your text can be adapted to illustrate how to use a concrete model to show that $.80 \div .4$ is equivalent to $8 \div 4$. In what way does this address 5.NBT.7?

Section 6.3

19. Common Core (website: <http://www.corestandards.org/Math> or app)

Read the Grade 6 standard 6.RP.3. This standard refers to two of the three types of percent problems. Refer to examples H, I, and J on pages 395 and 396 in your text to identify, by name, the two types of percent problems that are mentioned in the standard and the type of percent problem illustrated in your text which is not mentioned in this standard.

Section 6.4

20. Common Core (website: <http://www.corestandards.org/Math> or app)
- It is in eighth grade that irrational numbers are introduced. Read standard 8.NS.2. Follow the example in this standard and explain what they mean when they say to “truncate the decimal expansion of $\sqrt{2}$... to show that $\sqrt{2}$ is between 1.4 and 1.5. “
 - Use a number line model (see Section 6.1 in your text) to illustrate how you would continue the truncation of $\sqrt{2}$ to three and four decimal places to get even better approximations.

Common Core Classroom Connections

Chapter Seven

Section 7.1

21. Common Core (website: <http://www.corestandards.org/Math> or app)
- When are students first expected to work with picture and bar graphs? Give the grade level, the domain and summarize the standard that expresses this expectation.
 - At the next grade level, students are expected to expand their understanding of bar graph to a scaled bar graph. Give the grade level, the domain and summarize the standard that expresses this expectation.
 - Sketch examples of a "single-unit scale bar graph" and a "scaled bar graph" using the techniques from this section to illustrate the standards in parts a. and b. Explain your thinking.

Section 7.2

22. Common Core (website: <http://www.corestandards.org/Math> or app)

The CCSS refer to the concepts of mean, median and interquartile range in a four part standard; 6.SP.5.

Analyze the two data sets in Example E (page 478 in your text) using each of the steps in this standard.

Section 7.3

23. Common Core (website: <http://www.corestandards.org/Math> or app)

The Statistics and Probability standard 7.SP.1 discusses the need for samples to represent a population.

Pick one problem done in class or as homework that you believe demonstrates a method to pick a valid population from which to draw conclusions. Explain how you can use this method in your own classroom to address this standard.

Common Core Classroom Connections

Chapter Eight

Section 8.1

24. Common Core (website: <http://www.corestandards.org/Math> or app)
 - a. Summarize the content standard 7.SP.5 in your own words.
 - b. Describe how the spinner activities in Example E on page 524 of your text can be used to address each of the ideas in 7.SP.5.

Section 8.2

25. Common Core (website: <http://www.corestandards.org/Math> or app)
 - a. Summarize the content standard 7.SP.8 in your own words.
 - b. Read the paragraph under “CCSS.Math.Practice.MP5 Use appropriate tools strategically”. Explain how a problem such as the one explored in Example C on page 544 of your text can be used to address both the content standard 7.SP.8 and this mathematical practice.