

MATH 213 SCAVENGER HUNT STANDARDS REPORT DIRECTIONS

The national Common Core State Standards (CCSS) have received a lot of attention in the media in the last few years and have been adopted by many states (Oregon adopted them in 2010). These standards, in addition to the NCTM Standards, will be important components of teaching elementary and middle school.

A copy of the Common Core State Standards are linked to on the course webpage.

You will be randomly assigned a topic the first week of class; your task is to find two references, with each reference from a different mathematics textbook. So, you will need to find this topic in two different mathematics textbooks for children.

Procedure

- Record your topic and scavenger section number.
- Determine your topic due date (look at the online course schedule)
- Go to the state adopted textbook section of the Hemersly Library, 2nd floor, head all of the way to the windows in the back, before the windows, on the left, you will find the state adopted textbooks in the section labeled OREGON AIM. ASK for help if you can't find the books you need. You may also find suitable books in an elementary or middle school classroom; acceptable texts are texts that are currently in use or that have been used in the past several years.
- Look over a variety of books until you find two good examples / references to your topic in two different grade level books. Don't go past 8th grade if you can help it. Don't go past 9th grade at all. Try to get one low and one higher grade level with different approaches to the topic.
- Double check that each example you found is NOT already pictured on our class textbook.
- Double check that each example you found is NOT really an example for a similar topic listed near your topic.
 - Photocopy the page(s) you have found and write a complete reference for each of the books on the corresponding photocopied pages: Book title, grade level, author name(s), page numbers the example was found on, publisher, publication date and ISBN number—look by the book barcode.
- Write two reports following the directions given (see below) and also referring to the grading rubric
- Prepare your presentation based on your report and the grading rubric. You will use the document camera and have 3 minutes or less (timed).
- After you give your report, turn in your photocopied pages.
- If you need help in the library, please ask one of our very helpful librarians.
- If you need help understanding the assignment, please ask your instructor.

DIRECTIONS FOR WRITING YOUR REPORTS

The main idea of your report is to show how the Common Core State Standards (CCSS) link to your topic (**you will address the Math Content Standards and the Math Practice Standards**)

- Review the Scavenger Hunt grading rubric
- Open up the [Mathematics Common Core State Standards](#) file on the class webpage or find them on the CCSS webpage.



- **Read** "How to read the grade level standards," on page 5 of the CCSS file. The grade level standards refer specifically to the **Math Content Standards** for each grade, i.e., the topics to learn and at which grades they should be addressed. These are commonly referred to just as "**Standards**".
- **Read** the eight **CCSS Standards for Mathematical Practice** on pages 6 – 8. These are also listed (without description) throughout the CCSS at each grade level overview. So, these eight “practices” are for every grade level. They are commonly referred to just as "**Practices**" or as "**Practice Standards**".

Write a CCSS analysis report for each of your examples as follows:

- List your topic
- Write a complete reference: Book title, grade level, author name(s), page numbers the example was found on, publisher, publication date and ISBN number—look by the book barcode
- **Math Content Standards** Alignment: Find your topic ideas in one of the grade level mathematics standards (note, your schoolbook grade level and the CCSS grade level **may not exactly match**). Find the most appropriate Standards that apply to each of your examples even if the grade level does not match. Frequently the same standards will apply to both of your examples, this depends on the specific example you find. List the following:
 - The **grade level and category information** your topic falls under in the Grade (#) Overview
 - The **topic domain and corresponding standard(s) and standards' description(s)** for your topic. Write the actual Standard number(s), not just the title of the link (if you are looking on line). Be specific with your Standards list - if there are parts a, b, c, etc, then include which ones apply along with the main standard(s). Note the word "domain" is not listed for every domain, but per page 5 of the CCSS, this is what the grade level topic headers are called.

- **Practice Standards Analysis:** Look at the pages you have copied from the state textbooks and for each book, do the following:
 - Pick **two** of the eight Standards for Mathematical Practices (pp. 6 – 8) you think might be addressed in the school page. For each of the two practices you picked, explain how the schoolbook page is connected to the practice. (Note that explanations that are so generic/general that they could apply to any example will not earn full credit.). Note that you CANNOT use the same Practices for both examples (however I will allow you to repeat one if you feel that it applies best).

Type up both of your CCSS analysis reports as described above and bring printed copies to class on the day of your topic presentation with your photocopied schoolbook pages and the grading rubric. Also bring presentation notes for use with the document camera. (See directions for class presentation after the report example.)

Example of one report (you will need to do two of these):

Topic: Understand place value for multidigit numbers. [BBN section 3.1]

Reference information for example:

Math Connects, Grade 3, Altieri, Mary Behr ...[et al.], p. 22, Macmillan/McGraw-Hill, 2009, ISBN: 9780021057320

Grade Level and Category Information:

Grade 4 Overview--Number and Operations in Base Ten
Generalize place value understanding for multidigit whole numbers

Domain and Standards:

Number and Operations in Base Ten Domain
Generalize place value understanding for multidigit whole numbers.

Standard 1. Recognize that in a multidigit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.

Standard 3. Use place value understanding to round multidigit whole numbers to any place.

Practices Analysis:

Mathematical Practices 2. Reason abstractly and quantitatively.

In the section "Think about it," this page has students explain why you can use different combinations of base ten blocks to model the same number and in the section "Writing in", has students explain why base ten blocks are helpful in understanding numbers.

Mathematical Practices 5. Use appropriate tools strategically.

In the section "Activity," this page has students model 1,025 in two different ways with

base ten blocks. This is an appropriate concrete model for third graders as they form an understanding of multidigit numbers.

DIRECTIONS FOR CLASS PRESENTATION

- Topic name and the section from our class textbook that corresponds to your topic (10 sec)
- Example one (1 min 25 sec)
 - Show reference information – very briefly cite grade level and book/series title
 - How do pages (example) relate to the topic? [Can show photocopied pages and brief notes.]
 - Cite CCSS Math Standards that apply
 - Very briefly discuss which two CCSS Practices apply
- Example 2 (1 min 25 sec)
 - Show reference information – very briefly cite grade level and book/series title
 - How do pages (example) relate to the topic? [Can show photocopied pages and brief notes.]
 - If same standards apply just say so (do not review them again), otherwise cite new CCSS Math Standards that apply
 - Very briefly discuss which two CCSS Practices apply

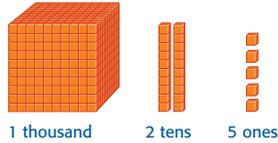
Schoolbook Pages:

ACTIVITY

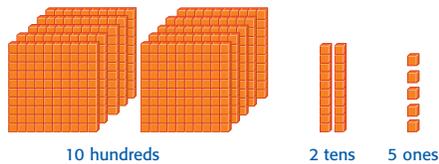


- 2 Use base-ten blocks to model 1,025 in two ways.

One Way Use thousands, hundreds, tens, and ones.



Another Way Use hundreds, tens, and ones.



Think About It

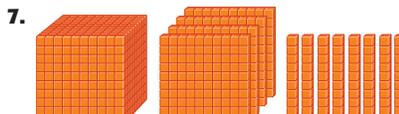
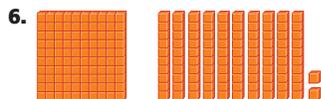
1. Why can you use different combinations of thousands, hundreds, tens, and ones to model the same number?

CHECK What You Know

Use base-ten blocks to model each number in two ways.

2. 135 3. 304 4. 1,283 5. 1,890

Write each number modeled.



8. **WRITING IN MATH** Explain how base-ten blocks are helpful in understanding numbers.