

Grade 2 Unit 6

Developing Multiplication

Volume 1 Issue 6

References

Helpful Links:

Under the Sea
http://www.learnalberta.ca/content/me3us/flash/lessonLaunch.html?lesson=lessons/08/m3_08_00_x.swf
(Arrays)

Harcourt School
http://www.harcourtschool.com/activity/space_arrays/
(Space Arrays)

Math Nook
<http://www.mathnook.com/math/skill/evenodddnumbergames.php>
(Even/Odd Number Games)

Number Ninja
http://www.abcya.com/number_ninja_odd_even.htm
(Even or Odd Game)

Math Grade 2 Textbook Connection:

Ch. 12, Lessons 2.4-2.7

Textbook Online:

<http://connected.mcgraw-hill.com/connected/login.do>

Student User ID:
ccsd(student ID)
Password: cobbmath1

Dear Parents,

Your child's math class is calling for students to be actively engaged in math activities in order to develop conceptual understanding of skills and concepts! In the classroom, students will frequently work on tasks and activities to discover and apply mathematical reasoning and thinking. Students are expected to explain or justify their answers and to write clearly and properly. Your child will receive a consumable My Math textbook and online access from his or her teacher.

Concepts Students will Use and Understand

- Understand and model multiplication as repeated addition and as rectangular arrays.
- Determine if a number is odd or even (within twenty).

Vocabulary

array: objects that are arranged in rows and columns

column: when numbers, objects, or shapes are arranged one above the other (in a vertical line)

even: a number that can be divided exactly by 2

odd: a number that cannot be divided exactly by 2

partition: to separate or divide

product: the answer to a multiplication problem

row: when numbers, objects, or shapes are arranged side-by-side (in a horizontal line)

sum: the answer to an addition problem



Try <http://intermath.coe.uga.edu/dictionary/homepg.asp> or www.amathsdictionaryforkids.com for further examples.

Symbols

+ Addition

Example 1

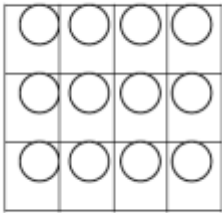
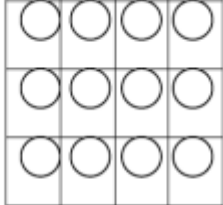
Standard OA.3 calls for students to apply their work with doubles addition facts to the concept of odd or even numbers. Is 8 an even number? Prove your answer. Possible student answers:

<p>Student 1</p> <p>I grabbed 8 counters. I paired counters up into groups of 2. Since I didn't have any counters left over, I know that 8 is an even number.</p>	<p>Student 2</p> <p>I grabbed 8 counters. I put them into 2 equal groups. There were 4 counters in each group, so 8 is an even number.</p>
<p>Student 3</p> <p>I drew 8 boxes in a rectangle that had two columns. Since every box on the left matches a box on the right, I know 8 is even.</p> 	<p>Student 4</p> <p>I drew 8 circles. I matched one on the left with one on the right. Since they all match up, I know that 8 is an even number.</p> 
<p>Student 5 I know that 4 plus 4 equals 8. So 8 is an even number.</p>	

Example 2

Standard OA.4 calls for students to apply their knowledge of addition to express the total number of objects in an array using repeated addends.

Find the total number of counters below.

<p>Student 1</p> <p>I see 3 counters in each column and there are 4 columns. So I added: $3 + 3 + 3 + 3$. That equals 12.</p> 	<p>Student 2</p> <p>I see 4 counters in each row and there are 3 rows. So I added $4 + 4 + 4$. That equals 12.</p> 
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Activities for at Home

- Observe a set of objects. Is the set odd or even? Why? (see example 1 for ways to prove the concept of odd/even)
- Count out an even number of objects. Arrange the objects into arrays (see example 2). For example, if I have 12 pennies, how can I arrange the pennies so that I have an equal number of pennies in each row? Your child might arrange the pennies in 1 group of 12, 2 groups of 6, 3 groups of 4, etc.
- Discuss ways that odd and even numbers are used in the world. For example, if playing a game of Checkers, you need two players. If there are three players, two of the players must team up.
- Look for arrays! Observe how the rows of seats in a movie theatre create an array. Look at the arrangement of eggs in cartons at the store, etc.