

**Representative TN State Curriculum Standards***Second Grade –*GLE's

0206.2.4 Develop an initial understanding of multiplication

0206.3.2 Extend knowledge of the properties of numbers and operations to multiplication

Checks for Understanding

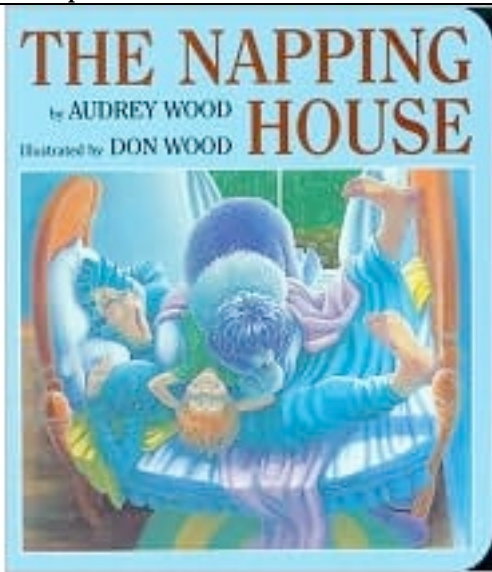
0206.2.13 Relate patterns in skip counting to multiplication.

0206.3.5 Understand and use the commutative and associative properties of addition and multiplication

*Third Grade –*GLE – 0306.2.3 Relate multiplication and division as inverse operationsChecks for Understanding

SPI 0306.2.5 Identify various representations of multiplication and division.

SPI 0306.2.8 Solve problems that involve the inverse relationship between multiplication and division.

**Time:** 12 minutes*Need drawing paper & crayons*

- Fold paper to model a house – use a shutter fold
- Draw pictures of people and pets in the house
- Use various methods to find the total number of feet in the house – skip counting, sums of ten, doubles
- Discuss commutative and associative properties
- Write the total number of feet on the outside of the shutter
- Compare the combinations of feet in houses with the same total # of feet.

**Virtual Manipulatives** Time: 8 minutes*Coloring Multiples in Pascal's Triangle*<http://www.shodor.org/interactivate/activities/>**GAME – Coloring Multiples in Pascal's Triangle**

Objective: The player selects a number then sets the game. The player must find all numbers in the triangle that are multiples of the number they chose by clicking it. The answer is correct if it changes from blue to red.

*Math Tunnel Blaster* <http://www.playkidsgames.com/mathGames.htm>

**GAME – Division Tunnel Blaster**

Objective: The player shoots the correct answer to the division problem to proceed to the next problem. If it is correct you will glide through the wall; if it is wrong you will crash into the wall.

**GAME – Multiplication Tunnel Blaster**

Objective: The player shoots the correct answer to the multiplication problem. If the answer is right that part of the wall will crumble for the player to proceed to the next problem. If the answer is wrong the player's flying object will crash into the wall.

**Activities from Textbook – 5 minutes each activity/20 minutes total**

<i>Teaching Addition and Subtraction - subtraction</i>	Activity 9.2 Missing-Part Subtraction pg. 152 Materials: Counters or snap cubes
<i>Teaching Addition and Subtraction – Properties of Addition and Subtraction</i>	Activity 9.3 More than Two Addends pg. 153 Materials: A list of problems with more than 2 addends
<i>Teaching Multiplication and Division – Multiplication and Division activities</i>	Activity 9.5 Learning about Division pg. 159 Materials: counters and cups
<i>Teaching Multiplication and Division – Useful Multiplication and Division Properties</i>	Activity 9. 8 Slice it Up pg. 161 Materials: Centimeter grid paper, crayons

**Lesson Plan**

Who's in the House

<http://education.ti.com/educationportal/activityexchange/Activity.do?cid=US&aId=4948>

*Description:* Each student constructs a model of his or her own house, drawing pictures of the people and pets in the house. Students use skip-counting strategies to find possible combinations of people and pets that live in their classmates' houses. (modeled with *The Napping House* tradebook activity)