Grade 3 Mathematics Unit Preview
Quarter 4: Number Relationships and Computation (Division)

Objectives: (Your student will be able to)

- **Multiply and divide whole numbers using a calculator**.
- **Multiply a two-digit or three-digit number with a one-digit number with renaming.** For example, 34 X 6 = 204
- **Represent division as the process of sharing and grouping.**
  For example: Sharing: Mark has 24 apples. He wants to share them equally among his 4 friends. How many apples will each friend receive? The unknown is "How many are in each group?"
  Grouping: Mark has 24 apples. He put them into bags containing 6 apples each. How many bags did Mark use? The unknown is "How many groups or bags are there?"
- **Solve a problem involving the four basic operations.**
- **Recognize that a number divided by itself is equal to one, and a number divided by one is equal to that number.** For example: 8 ÷ 8 = 1 and 8 ÷ 1 = 8
- **Identify the divisor, dividend, quotient and remainder in division problems.** For example, in 6 ÷ 3 = 2, 6 is the dividend, 3 is the divisor, and 2 is the quotient.
- **Divide one- or two-digit dividend by a one-digit divisor with remainder.** For example, 88 ÷ 3 = 27 remainder 1.
- **Complete a function table using a given addition or subtraction rule.**

Input	Output
0	3
1	4
2	5

The function table to the left lists pairs of numbers that follow the rule *n* + *3*.

Input = 3

- **Interpret the remainder for a given situation.** For example: Discard the remainder: The rope is 25 feet long. How many 7 foot jump ropes can he make? Force the remainder to the next whole number: The ferry can hold 8 cars. How many trips will it have to make to carry 25 cars across the river?

Vocabulary: (Words your student will need to understand)

• **algorithm:** a step-by-step method for computing	• **dividend:** a number that is divided by another number
• **divide:** to separate into equal groups and find the number in each group or number of groups	• **divisor:** a number that divides another number
• **function table:** a table that matches each input with an output value	• **mental mathematics:** the process of computing an exact answer in your head.
• **quotient:** the number, not including the remainder, that results from dividing	• **remainder:** the amount left over when a whole number cannot be divided into equal whole numbers
• **estimation:** a number close to an exact amount	• **grouping:** dividing things into equal groups (sets)

HOWARD COUNTY PUBLIC SCHOOL SYSTEM

Visit **http://smart.hcpss.wikispaces.net** for HCPSS elementary mathematics program information.

Activities to do with your student (in addition to homework, optional):

- Roll 2 number cubes to determine the factors. Make an array to find the product.
- Use a calculator to solve word problems using multiplication and division. *For example, Callie wants to buy 20 apples that cost $ .19 each. What is the total cost of her purchase?*
  Michael has 332 quarters. He wants to put them into groups of 4. How many groups will he make?
- Act out division problems with counters. *For example, Brad has 12 rabbits. He puts the same number of rabbits into each of 4 cages. How many rabbits does Brad put in each cage?*
- Roll 2 number cubes and write the fact families. For example, for rolls of 4 and 6, write: 4 X 6 = 24, 6 X 4 = 24, 24 ÷ 6 = 4, 24 ÷ 4 = 6.
- Ask your student to find the missing factor. For example, *5 X what number? = 75?*
- Practice addition and subtraction facts.
- Practice multiplication facts and division facts.

HOWARD COUNTY
PUBLIC SCHOOL SYSTEM