

Grade Level / Content Area: *Grade 3-5 / Math – Division*

Standards: CCSS.MATH.CONTENT.4.NBT.B.6

Concept/Topic to Teach: Division by 4s and 5s

I. Getting students set to learn Addition

Introduction/Review; Review the work recently done by the class related to division

Anticipatory Set; Explain that we are going to learn how to divide by 4s and 5s in today's lesson. Demonstrate that when you divide by 4 you get $\frac{1}{4}$ the original amount and that when you divide by 5 you get $\frac{1}{5}$ the original amount. Explain that division of 0 by any number always equals 0.

Objectives;

- The students will be able to divide small numbers (up to 24) by 4s and 5s.
- Students will explain to the teacher what division by 4s and 5s does to the original amount.
- Students will be able to verbally tell the teacher what the answer is when 8, 12 and 16 are divided by 4 is and what the answer is when 10, 15 and 20 are divided by 5.

II. Instruction

- **Input and Modeling;** Go through the first two examples from the work sheet together. Remind students of the importance of listening to or reading the question carefully before answering it. Ask the students to complete the remainder of the first worksheet page.

III. Checking for understanding

Checking Understanding; Review the student's completed first worksheet pages and explain any errors.

Guided Practice; Have the students complete the second page of the worksheet.

IV. Independent practice – Hands-On Learning

Independent Practice;

Pass out the HyPars Educational kits to the students and indicate these parts will be used to learn more about division by 4s and 5s.

- From the HyPars Educational Kit parts, have each student make four groups of four parts (consisting of some HyPars and some Connectors).
- Ask the students what $16 \div 4$ is (have them count the 1 group of 4 parts they have left after they remove three out of the four groups for the answer).
- Ask the students to assemble (connect) the entire group of parts they have left after the division and then again ask how many parts are in this first assembly.
- Upon confirmation of each student understanding the division of $16 \div 4$, have the students get five groups of four parts from their HyPars Educational Kits (including some HyPars and some Connectors).
- Ask the students what $20 \div 5$ equals (have them count the 1 group of 4 parts they have left after they remove 4 out of the 5 groups for the answer).
- Ask the students to assemble (connect) the entire group of parts and then again ask how many parts are in this second assembly.
- Have the students disassemble their assemblies and put the parts away back into their HyPars Educational Kits.

Division by 4s and 5s Worksheet

1a) Divide the number of HyPars in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷4 =		=	
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1b) _____ ÷ _____ = _____

2a) Divide the number of Connectors in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷5 =		=	
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2b) _____ ÷ _____ = _____

3a) Divide the number of black HyPars in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷4 =		=	
--	------	--	---	--

3b) _____ ÷ _____ = _____

4a) Divide the number of black Connectors in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷5 =		=	
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4b) _____ ÷ _____ = _____

Division by 4s and 5s Worksheet

5a) Divide the number of HyPars in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷4 =		
--	------	--	--

5b) _____ ÷ _____ = _____

6a) Divide the number of Connectors in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷5 =		
--	------	--	--

6b) _____ ÷ _____ = _____

7a) Divide the number of black HyPars in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷4 =		
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7b) _____ ÷ _____ = _____

8a) Divide the number of black Connectors in the first Figure by the number printed between the Figures. Circle the third or fourth Figure that has the correct total. Fill in the equation below the Figures.

	÷5 =		
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8b) _____ ÷ _____ = _____