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Really Good Stuff® Instructional Guide

Multiplication and Division Fact Families Pocket Chart™ - English/Spanish

- This Really Good Stuff® product includes:**
- Multiplication and Division Fact Families Pocket Chart™ - English/Spanish, with magnetic strip
 - 24 Divider Cards, laminated
 - 3 Two-sided Header Cards, laminated
 - 300 Number Cards, laminated
 - 12 Symbol Cards, laminated
 - 18 Blank Cards, laminated
 - Storage Tub
 - This Really Good Stuff® Instructional Guide

Congratulations on your purchase of this Really Good Stuff® Multiplication and Division Fact Families Pocket Chart™ - English/Spanish—an interactive way to reinforce multiplication and division fact families.

Meeting the Standards
The Really Good Stuff® Multiplication and Division Fact Families Pocket Chart™ - English/Spanish aligns with the Common Core State Standards for Mathematics below. For alignment with other state standards, please refer to our website's Standards Match.

- Operations and Algebraic Thinking**
- 3.OA.B.5** Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)
- 3.OA.B.6** Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.
- 4.OA.A.1** Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

Cleaning and Storing the Multiplication and Division Fact Families Pocket Chart™ - English/Spanish
Keep your Pocket Chart in good condition by wiping it occasionally with a damp sponge. Fold the Pocket Chart along the stitching lines for easy storage.

Assembling and Displaying the Multiplication and Division Fact Families Pocket Chart™ - English/Spanish
Before displaying the Multiplication and Division Fact Families Pocket Chart™ - English/Spanish, make copies of this Really Good Stuff® Instructional Guide, and file

the pages for future use. Or, download another copy of it from our website at www.reallygoodstuff.com. Label the Divider Cards with the numbers from 0 through 12, and place them in the Storage Tub in numerical order. Label additional Divider Cards with product and quotient ranges, such as 1–19, 20–39, 40–59, 60–79, 80–99, 100–119, and 120–144, and place them in the Storage Tub in numerical order. Separate the Number Cards, sort them according to the Divider Cards, and place them behind the corresponding Divider Cards. Separate the Symbol Cards, label a Divider Card with the word Symbols, and place the Symbol Cards behind it. Separate the Blank Cards, label a Divider Card with the word Blanks, and place the Blank Cards behind it.

All Header Cards have text in both English and Spanish, so choose the language that is appropriate for your class. Place either the Fact Families, Multiplication and Division, or Relating Multiplication and Division Header Card in the top pocket. Select a fact family of three yellow Number Cards, and place them in the three pockets on the “roof” of the house, with the greatest of the three numbers in the top pocket. For students who are just learning multiplication and division: Place \times and $=$ Symbol Cards in the next two pockets, and $+$ and $=$ Symbol Cards in the two lower pockets, spacing the Symbol Cards far enough apart to leave room for the correct Number Cards. Place four of each of the appropriate white Number Cards on a table nearby. For more-advanced students: Place four of each of the white Number Cards on a table along with two \times , two \div , and four $=$ Symbol Cards. Hang the Pocket Chart where students will be able to see and interact with it easily.

Introducing the Multiplication and Division Fact Families Pocket Chart™ - English/Spanish
Point to the Header Card, and ask a student to read it. Point to the Number Cards you have placed at the top of the Pocket Chart, and explain how they are related, or ask the student to explain how the Number Cards are related. After discussing, remind students that the group of numbers is what is known as a fact family and that a “fact family is a group of three numbers that relate to each other through multiplication and division.” Review with students that they can use the numbers in a fact family to create multiplication and division facts. Ask a student to come forward and take the Number Cards alone or the Number Cards and Operation Cards to create one multiplication or division problem. Read the problem to students, and review the vocabulary of

All instructional guides can be found online.

Multiplication and Division Fact Families Pocket Chart™ - English/Spanish

factor, product, dividend, divisor, and quotient using this problem. Have more students come forward and create the remaining problems in that fact family. Remind students that in the multiplication problems they create, the product of the two smaller numbers (factors) is the larger number (product) and also review that in the division problems, the fact starts with the larger number (dividend), followed by the divisor, and that the quotient is one of the smaller numbers.

Number Cards and Symbol Cards to create the first multiplication number sentence in that fact family. Ask students to explain what they can do to the numbers to create the second multiplication number sentence that equals the same product, if necessary guiding them to switch the position of the two factors in the number sentence. Remind students that this is known as the commutative property of multiplication, and it means no matter what order the two numbers in a multiplication sentence are in, the product stays the same.

Making Fact Families

Copy and distribute the *Fact Families Reproducible* for students to record the fact families that they create with the *Pocket Chart* as a group activity or during independent work. Alternatively, use the reproducible in a math center along with the *Pocket Chart*. Copy the reproducible, and cut into four fact family “houses.” Hang the *Pocket Chart* near a desk or table, and leave the *Number Cards* and *Symbol Cards* nearby. Challenge students to create fact families, and tell students to record them on the reproducible.

Making Number Sentences

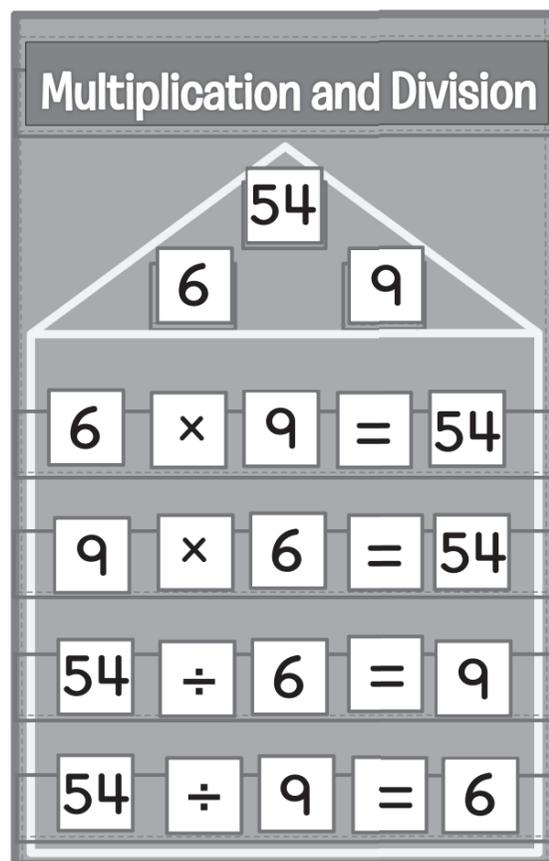
Encourage students to build and manipulate fact families using the *Number and Blank Cards Reproducible*. Make two copies of the reproducible for each student, and distribute them along with an envelope. Have students cut apart the cards and store the number cards in the envelope. Ask students to use markers to create product cards for each fact family on the blank square cards. Urge students to use these cards to create and manipulate number sentences at their desks as others are working at the *Pocket Chart*.

What’s the Missing Number?

Create missing number problems using the *Pocket Chart*. Choose two of the three numbers in a fact family, and place their *Number Cards* in the top portion of the *Pocket Chart*. If you wish, place the partial number sentences for those numbers in the bottom of the *Pocket Chart*. Have student volunteers select the correct *Number Cards* to add to the fact family and to complete the partial number sentences.

Commutative Property

Review the commutative property of multiplication using the *Pocket Chart*. Choose a fact family, and place its three *Number Cards* in the top portion of the *Pocket Chart*. Have a student come forward and use the



Name: _____

Fact Family

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

Name: _____

Fact Family

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

Name: _____

Fact Family

_____ × _____ = _____

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Fact Family

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