# Multiplication & Division Basic Facts Games Lapbook

#### This lapbook covers:

\*Multiplication Basic Facts 0 – 12

\*Division Basic Facts 0 – 12

Designed for 2<sup>nd</sup>-6<sup>th</sup> Grades, but would be a great review for any grade!

Designed by Cyndi Kinney of Knowledge Box Central

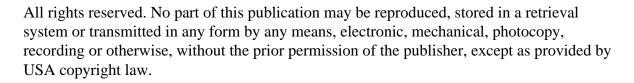


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This book is dedicated to my amazing family. Thank you to my wonderful husband, Scott, who ate a lot of leftovers, listened to a lot of whining (from me!), and sent lots of positive energy my way. Thank you to my daughter, Shelby, who truly inspired me through her love for learning. Thank you to my parents, Judy and Billy Trout, who taught me to trust in my abilities and to never give up.



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Multiplication & Division
Basic Facts
Games Lapbook
Teacher's Guide

Teaching the basic multiplication and division facts is VERY important. However, it isn't as easy as it seems like it should be.

This Lapbook consists of many games for "drilling" the math facts; however, in order for them to work they require repetition. Have your students play these games over and over in order to REALLY see results. Encourage your students to play the games with siblings, parents, friends, etc.

#### How do I get started?

First you will want to gather your supplies. Depending on which format you purchased from us, you will need different supplies. Take what applies, and skip over the rest.

#### \*\*\* Printing:

\*Print instructions and study guide on white copy paper.



\*Print the booklet templates on 24# colored paper or 110# cardstock. For some booklets, we have suggested specific colors or cardstock. You may choose to use those suggested colors, or you may choose to print on any color that you like.

#### \*\*\* Assembly:



\*Folders: We use colored file folders, which can be found at Walmart, Sam's, Office Depot, Costco, etc. You will need between 1 and 4 file folders, depending on which product you have purchased. You may use manila folders if you prefer, but we have found that children respond better with the brightly colored folders. Don't worry about the tabs....they aren't important. If you prefer, you can purchase the assembled lapbook bases from our website.

\*Glue: For the folder assembly, we use hot glue. For booklet assembly we use glue sticks and sometimes hot glue, depending on the specific booklet. We have found that bottle glue stays wet for too long, so it's not a great choice for lapbooking.

\*Other Supplies: Of course, you will need scissors. Many booklets require additional supplies. Some of these include metal brad fasteners, paper clips, ribbon, yarn, staples, hole puncher, etc. You may want to add decorations of your own, including stickers, buttons, coloring pages, cut-out clipart, etc. The most important thing is to use your imagination! Make it your own!!

### Ok. I've gathered the supplies. Now how do I use this product?

Inside, you will find several sections. They are as follows:

1. **Teacher's Guide**: This section includes information about and how to teach the games within this lapbook. These games will be used for review and memorization, and it is my opinion that the BEST way to learn the basic math facts is through repetition. You will see explanations of each game that your student is to make for his lapbook. This section is a great resource for the parent/teacher because it also provides extra activities that you may choose to do in order to reinforce the topic. Don't feel that you MUST do EVERYTHING that is listed. Pick and choose what works best for your student.

Activities that are JUST suggestions, from which you may choose what works best for your student, are marked with a circle like this:
Booklets and games for your lapbook are marked with a folder shape like this:
If you are a "box checker," like me, you can check inside the circle or folder when you have completed that activity.

2. **Student Instructions:** This section is written directly to the student, in language that he or she can understand. However, depending on the age of the child, there may be some parent/teacher assistance needed. These instructions will tell the student exactly how to assemble the lapbook base and how to cut out and assemble each booklet or game. Here, they will find a layout of where each booklet or game should be placed in the lapbook and pictures of a completed lapbook.

Remember – the *Student Instructions* are written <u>directly to the student...</u>.but YOU will probably need to assist. The assembly instructions are NOT repeated within the Teacher's Guide.

3. **Templates:** This section includes all of the templates to make the booklets and games for the lapbook. Within the Student Instructions, the student is told on what page to find each template.

### **Basic Multiplication & Division Facts Games Lapbook**

Your math curriculum should introduce your student to the basic multiplication and division facts. However, repetition is the key to TRULY retaining the information and being able to recall it quickly.

Here is a list of the multiplication facts, and the division ones are on the next page.

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

#### Here is a list of the division facts.

1÷1= 1	2÷2= 1	3÷3 = 1	4÷4 = 1
2÷1= 2	4÷2= 2	6÷3 = 2	8÷4 = 2
3 ÷ 1 = 3	6÷2= 3	9÷3 = 3	12 ÷ 4 = 3
4 ÷ 1 = 4	8 ÷ 2 = 4	12 ÷ 3 = 4	16 ÷ 4 = 4
5 ÷ 1 = 5	10 ÷ 2 = 5	15÷3 = 5	20 ÷ 4 = 5
6 ÷ 1 = 6	12 ÷ 2 = 6	18÷3 = 6	24 ÷ 4 = 6
7 ÷ 1 = 7	14 ÷ 2 = 7	21 ÷ 3 = 7	28 ÷ 4 = 7
8 ÷ 1 = 8	16 ÷ 2 = 8	24 ÷ 3 = 8	32 ÷ 4 = 8
9 ÷ 1 = 9	18 ÷ 2 = 9	27 ÷ 3 = 9	36 ÷ 4 = 9
10 ÷ 1 = 10	20 ÷ 2 = 10	30 ÷ 3 = 10	40 ÷ 4 = 10
11 ÷ 1 = 11	22 ÷ 2 = 11	33 ÷ 3 = 11	44 ÷ 4 = 11
12 ÷ 1 = 12	24 ÷ 2 = 12	36 ÷ 3 = 12	48 ÷ 4 = 12
5÷5 = 1	6÷6 = 1	7÷7 = 1	8÷8 = 1
10 ÷ 5 = 2	12 ÷ 6 = 2	14÷7 = 2	16 ÷ 8 = 2
15÷5 = 3	18 ÷ 6 = 3	21 ÷ 7 = 3	24 ÷ 8 = 3
20 ÷ 5 = 4	24 ÷ 6 = 4	28 ÷ 7 = 4	32 ÷ 8 = 4
25 ÷ 5 = 5	30 ÷ 6 = 5	35 ÷ 7 = 5	40 ÷ 8 = 5
30 ÷ 5 = 6	36 ÷ 6 = 6	42÷7 = 6	48 ÷ 8 = 6
35 ÷ 5 = 7	42 ÷ 6 = 7	49 ÷ 7 = 7	56 ÷ 8 = 7
40 ÷ 5 = 8	48 ÷ 6 = 8	56 ÷ 7 = 8	64 ÷ 8 = 8
45÷5 = 9	54 ÷ 6 = 9	63 ÷ 7 = 9	72 ÷ 8 = 9
50 ÷ 5 = 10	60 ÷ 6 = 10	70 ÷ 7 = 10	80÷8 = 10
55 ÷ 5 = 11	66 ÷ 6 = 11	77 ÷ 7 = 11	88 ÷ 8 = 11
60 ÷ 5 = 12	72 ÷ 8 = 12	84 ÷ 7 = 12	96 ÷ 8 = 12
9÷9 = 1	10 ÷ 10 = 1	11÷11 = 1	12 ÷ 12 = 1
18÷9 = 2	20 ÷ 10 = 2	22 ÷ 11 = 2	24 ÷ 12 = 2
27 ÷ 9 = 3	30 ÷ 10 = 3	33 ÷ 11 = 3	36 ÷ 12 = 3
36 ÷ 9 = 4	40 ÷ 10 = 4	44 ÷ 11 = 4	48 ÷ 12 = 4
45÷9 = 5	50 ÷ 10 = 5	55 ÷ 11 = 5	60 ÷ 12 = 5
54÷9 = 6	60 ÷ 10 = 6	68 ÷ 11 = 6	72 ÷ 12 = 6
63 ÷ 9 = 7	70 ÷ 10 = 7	77 ÷ 11 = 7	84 ÷ 12 = 7
72 ÷ 9 = 8	80 ÷ 10 = 8	88 ÷ 11 = 8	98 ÷ 12 = 8
81 ÷ 9 = 9	90 ÷ 10 = 9	99÷11 = 9	108 ÷ 12 = 9
90 ÷ 9 = 10	100 ÷ 10 = 10	110 ÷ 11 = 10	120 ÷ 12 = 10
99÷9 = 11	110 ÷ 10 = 11	121 ÷ 11 = 11	132 ÷ 12 = 11
108 ÷ 9 = 12	120 ÷ 10 = 12	132 ÷ 11 = 12	144 ÷ 12 = 12

#### **Vocabulary and Basic Concepts**

It is important for your students to understand the basic vocabulary involved in multiplication and division as well as a few very basic concepts. Below you'll find these basic vocabulary terms and concepts.

1. Multiplication is repeated addition.

For example:  $3 \times 5$  is the same as 3 + 3 + 3 + 3 + 3 + 3

2. Division is repeated subtraction.

For example:  $15 \div 3$  is the same as 15 - 3 - 3 - 3 - 3 - 3

- 3. **Inverse**: Multiplication is the inverse of division. This means that they are opposites of each other. You could also look at it as the "reverse" on one another.
- 4. Zero divided by any number equals 0.

For example:  $6 \div 0 = 0$ 

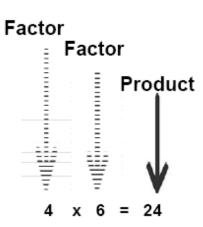
5. Any number (except 0) divided by itself equals 1.

For example:  $7 \div 7 = 1$ 

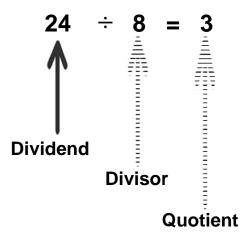
6. Any number divided by 1 equals that number.

For example:  $4 \div 1 = 4$ 

- 7. The answer to a multiplication problem is called the **product**.
- 8. The numbers you are multiplying together are called **factors**.



- 9. The answer to a division problem is called the **quotient**.
- 10. The number you are dividing is called the **dividend**.
- 11. The number you are dividing by is called the **divisor**.





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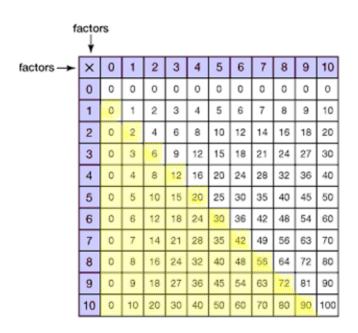
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I'm sure that your math curriculum covers lots of ways to teach the multiplication and division facts. However, it is my opinion that the only way to memorize these facts and be able to recall them quickly is through repetition. Just sitting and looking at the facts over and over isn't the kind of repetition that works, so we have to find more interactive ways. That is what this lapbook is all about. It includes fun ways to go over the facts over and over. Have your child play the games as many times as possible and with different people. Make it fun for your student!



LAPBOOK Game #1: "Multiplication Table" - This isn't REALLY a game, but it is a great place to start. Have your student fill in the table, and you can decide whether to allow him or her to use it as a reference for the other games in the lapbook.

\*\*Make sure to show your student that if he learns just ½ of the table, the he will know ALL of the table....because the facts repeat themselves. You can use the table below to show how that works. All of the facts in yellow are really repeated in another place on the chart, so he only REALLY has to memorize ½ of the chart!



#### **Additional Multiplication & Division Activity Suggestions**

Following, you will find many more suggestions for activities that will help your student to retain addition and subtraction basic facts. Remember: REPETITION is the KEY! Use as many types of activities as possible, and use them OVER and OVER and OVER. When your student gets bored with one, switch to another, and then another, and then another. DO NOT move on to more difficult multiplication and division UNTIL your child is able to solve basic multiplication and division facts within seconds.

#### **Online Games**

teaching multiplication. It is a GOLD MINE!! And it's FREE!  http://www.kidsnumbers.com/multiplication.php
<b>ACTIVITY SUGGESTION:</b> This is a really fun way to learn some Geography while practicing your multiplication facts! http://www.mrnussbaum.com/aroundtheworld.htm
<b>ACTIVITY SUGGESTION:</b> This site includes MANY different math games that can be played online: http://www.playkidsgames.com/mathGames.htm
<b>ACTIVITY SUGGESTION:</b> FunBrain has lots of great games for all subjects, including math! http://www.funbrain.com
<b>ACTIVITY SUGGESTION:</b> Fish Shop and Patty's Paint are great online games for beginning multiplication students: http://www.multiplication.com/interactive_games.htm
<b>ACTIVITY SUGGESTION:</b> The free version of this game is a really fun way to practice the multiplication facts: http://www.bigbrainz.com/index.php?PARTNER=krimsten
<b>ACTIVITY SUGGESTION:</b> Fly your ship through a tunnel in this division practice game: http://www.playkidsgames.com/games/Tunnel/divide.htm
ACTIVITY SUGGESTION: This is a fun online division game: http://www.oswego.org/ocsd-web/games/SumSense/sumdiv.html



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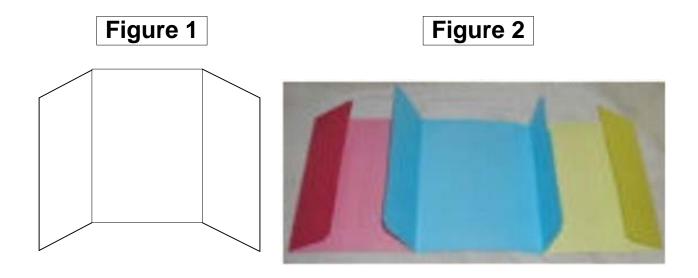
## Multiplication & Division Basic Facts Games Lapbook Student Instruction Guide

#### **Lapbook Base Assembly:**

First, you will need to assemble the "Lapbook Base" for your project. This is not such an easy task, so you will want to ask for some assistance with this part. Also, you should NEVER use hot glue alone.

For this lapbook, you will need 2 file folders. Open each file folder, and lay it flat in front of you. Fold both sides of each folder toward the middle. The edges (or tabs) of the folded sides should touch the center original fold line on the folders. See **Figure 1** below.

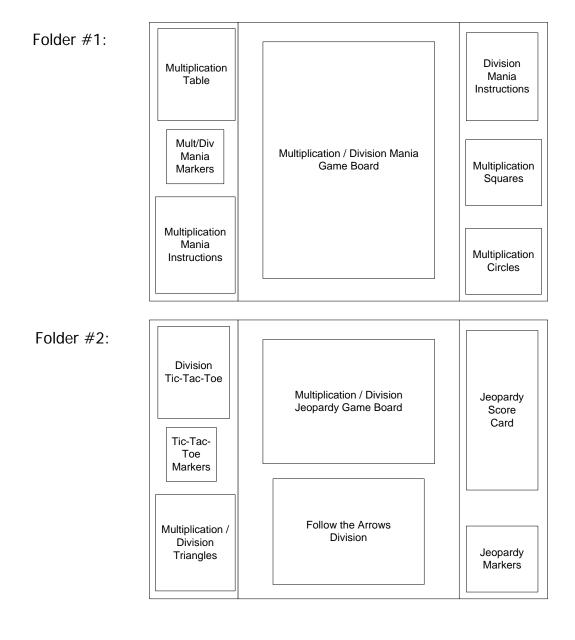
Lay all file folders out in front of you after you have folded them all to look like **Figure 1**. Now glue the smaller "flaps" of each folder to those of the next folder as in **Figure 2** below. Note: You may choose to add additional folders if you want to includes more activities.



## Multiplication & Division Basic Facts Games Lapbook Student Instruction Guide

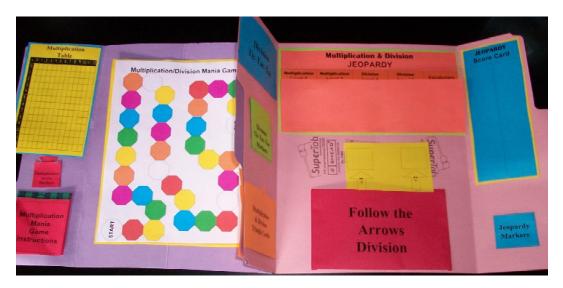
#### **Lapbook Layout:**

Below, you will see a layout for this lapbok. You may choose to glue the booklets into your Lapbook Base in any order that you like. However, you may have trouble fitting all of them in unless you follow the layout below. Some of the shapes aren't exactly the same on the layout as the booklets themselves.



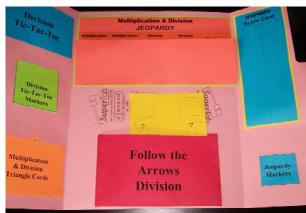
## Multiplication & Division Basic Facts Games Lapbook Student Instruction Guide

Below, you will find pictures of how the lapbook should look when you have completely assembled it.



**Completed Lapbook** 





Folder #1

Folder #2

## Multiplication & Division Basic Facts Games Lapbook Student Instruction Guide

#### Game #1

\*Title: "Multiplication Table"

\*Student Instructions: Now that you have learned your multiplication facts, see if you can fill in this table WITHOUT looking at anything else.

#### \*Template is on page 25

\*\*Assembly Instructions: Cut out along the outer black line edges. Now glue to another piece of paper of a different color. Cut around the edges, creating a small border.

#### **Game #2**

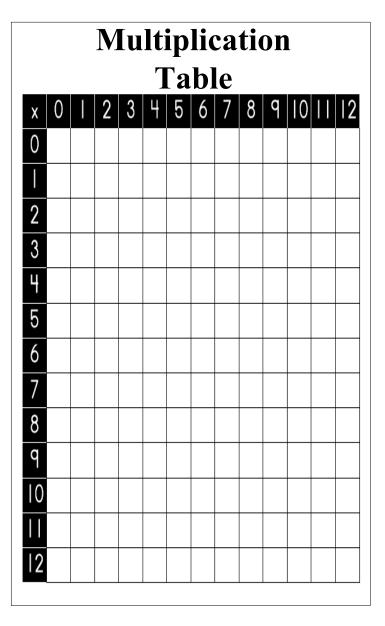
\*Title: "Multiplication Circles"

\*Student Instructions: This is a fun way to practice your multiplication facts. Look at the number in the center of the circle. Now multiply it by each of the numbers in the  $2^{nd}$  circle. Write your answers in the outer circle.

#### \*Template is on pages 26-29

- \*\*Assembly Instructions: There are several parts to this game. I'll describe the instructions for each one.
- Circles: Cut out around the outer black line edges of each circle. You may want to laminate them so that you can use them over and over. If you do this, then you can write your answers with dry erase markers and then just wipe them away when you are finished.
- Pocket: Cut out along the outer black line edges of the pocket. Now fold along the line near the center, making sure that the words are on the outside. Now fold each tab toward the back, and glue the tabs into place.

#### Game #1



#### Game #2

