Getting started with Interactive Math Notebooks
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Math Notebook

This year you will be using a Math Notebook to keep your work organized. Your notebook will be used as a personalized reference book so you must make sure that you bring it to school every day. If you do not have your notebook you can take notes on a piece of paper and transfer them to your notebook later.

Math Notebook Rules:

- Create a cover page that represents you
- Create a Table of Contents and keep it current at all times
- Write neatly so that you can use your notebook as a visual study tool. You may use colored pencils, pens and highlighters but all math work should be done in PENCIL.
- Number all pages in your notebook
- Put a date and title on every page
- Label all diagrams, models etc.
- Take your notebook home every night so that you can use it to help with homework and study
- If you are absent it is your responsibility to use the Teacher Notebook to catch up on anything you missed
- Your notebook must be organized into a Left Side and a Right Side.

<table>
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<tr>
<th>Left Side (Output) (where you process / practice skills)</th>
<th>Right Side (Input)</th>
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<td>Test Corrections</td>
<td>Foldables</td>
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Preparing Your Math Notebook

1. Cut out your Math Notebook cover and paste it to the front of your notebook.

2. Write your name and class.

3. Decorate your Math Notebook cover by writing some descriptive sentences about you that contain numbers. See the examples below or come up with your own ideas. Be creative! You can include some small drawings to illustrate your ideas or write each sentence inside a different shape. You can write numbers or expressions (e.g. I am 5 x 2 years old, or I am (6 x 3) - (5 + 3) years old.

Possible number descriptions:
The last two digits of my phone number are _______.
I am _______ years/days old.
I have _________ siblings.
My birthday is on ____________.
My height is ____________.
My surname has _________ letters.
My shoe size is ________.
My house number is __________.
My favorite shape has _______ sides and _______ angles.
I read _____ books this summer.
I have _________ cousins.
__________ people live in my house.
It takes me _______ minutes to get to school each day.

4. Highlight your artistic skills by using colored pencils, markers or crayons.

5. Create a Table of Contents on the first page of your notebook that has three columns. Repeat on pages 2-3. User a ruler!

<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>Math Topic</td>
</tr>
<tr>
<td>Pages</td>
</tr>
</tbody>
</table>

6. OPTIONAL: To keep your Math Notebook looking good all year cover it with clear contact paper.
Hints for Implementing Math Notebooks

1. What happens when students are absent?
Teachers can keep a master copy of the notebook as a resource for absent students as well as those that need to "catch up." Another idea is to keep an up to date Table of Contents on a Post-It Note Easel Pad. When absent students return to class they can check the Table of Contents to see what they missed. Then, they can ask a neighbor for details or check the teacher’s notebook to find out what they missed.

2. What are some examples of questions or thinking stems that students might use to write reflections on the left side of their math notebook?
Processing Questions:
1. What did we learn today?
2. How does what we learned today connect to or add to something we learned previously?
3. How can what we learned today help us in the real world?

Thinking Stems:
- The most important thing I learned today was...
- I would explain to an absent student what I learned today like this...
- I still don’t understand...
- I first thought...but now I realize...
- I’m not sure...
- Another strategy I could have used ...
- I will understand this better if I...
- Tomorrow I would like to ...
- The easiest/most difficult part of the lesson was...

3. What are Foldables and how can they be included in the notebook?
In the introduction to her book, *Big Book of Math - Elementary K-6*, Dinah Zike describes Foldables as, "a 3-D, student-made, interactive graphic organizer based upon a skill. Making a Foldable gives students a fast, kinesthetic activity that helps them organize and retain information. Foldables are designed to be used as a study guide for main ideas and key points; however, Foldables can also be used to solve math problems, answer questions, explain computations, and record definitions."
4. What types of graphic organizers can be used for vocabulary?
There are many different types of graphic organizers. Below are a few examples:

a) Frayer Model:

<table>
<thead>
<tr>
<th>Definition in your own words</th>
<th>Facts/Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A polygon with 4 sides and 4 angles</td>
<td>4 sides may or may not be of equal length and may or may not be parallel. Also known as quadrangle.</td>
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</table>

<table>
<thead>
<tr>
<th>Quadrilateral</th>
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</table>

<table>
<thead>
<tr>
<th>Square</th>
<th>Rectangle</th>
<th>Kite</th>
<th>Rhombus</th>
</tr>
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<tbody>
<tr>
<td>Circle</td>
<td>Triangle</td>
<td>Pentagon</td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Non-example</td>
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</tbody>
</table>

b) Venn diagrams can be used to visualize the relationships between 2 or 3 sets (e.g. prime numbers, even numbers and multiples of 3).

c) Tree Diagram
d) Bubble Map

5. Random Hints for Notebooks:
- Establish routines for notebook organization and use during the first week of school
- Use tabs to identify units
- Glue a large envelope onto the back cover of the notebook to hold students’ Math Vocabulary Book
- Model, model, model! Keep your own notebook and model how to use it both in school and for homework
- Hold students accountable for the work in their math notebooks by using a notebook rubric. Collect notebooks every 4-6 weeks and let students know that their notebook work will count towards their math grade.
<table>
<thead>
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<th>Description</th>
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| 4     | Notebook is very organized and includes all components (titles, dates, page numbers, up to date Table of Contents)  
  - Right side pages (Input) are neat and accurate  
  - Left side pages (Output) consistently show advanced understanding of concepts |
| 3     | Notebook is organized and includes all components (titles, dates, page numbers, up to date Table of Contents)  
  - Right side pages (Input) are neat and accurate  
  - Left side pages (Output) consistently show grade level understanding of concepts |
| 2     | Some parts of the notebook are organized  
  - Some right side pages are untidy, unfinished or missing  
  - Some left side pages show grade level understanding of concepts |
| 1     | Notebook is not organized or is missing several components  
  - Many right side pages are untidy, unfinished or missing  
  - Many left side pages show below grade level understanding of concepts |
I am _____ years old.

My favorite shape has ___ sides.

My birthday is on __________.

MATH NOTEBOOK:

Name:

Class:

___ people live in my house.

My first name has ___ letters.

I wake up at _______.

I go to bed at _______.

My shoe size is _____.

I have ___ pets.

Math Homework

1. Cut out your Math Notebook cover and paste it to the front cover of your notebook.

2. Use numbers to complete the sentences.

3. Write your name and class.

4. Use colored pencils or crayons to decorate your cover.

5. Return your Math Notebook to school.

*Optional: To keep your Math Notebook looking good all year cover it in clear contact paper.
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We hope that you found this resource useful! For hundreds more **free** math center activities and resources aligned with the Common Core State Standards visit our website at:
http://www.k-5mathteachingresources.com

Our K-5 Math Journal EBooks are now also available in Spanish!