



WELCOME TO CAMPING IN- MATH STYLE

Presenters

Kelli Shrewsberry, Director, Teaching & Learning Collaborative
Jessica Cahill, Mathematics Coach, South Western City Schools

Session Agenda

Power Point Presentation	Join us on our camping adventure. Enjoy this presentation of pictures from our Math Camp-In.
Overview of Math Camp	What is Math Camp-In?
Explore	Hike through a few trail posts.
What's Next?	Learn how to take this back to your school.
Q & A	What questions do you have?

Contact Information

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Visit **www.teachinglearningcollaborative.org** for more information about Math Camp-In and other programs we offer.

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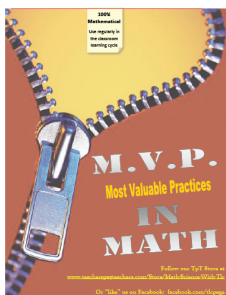
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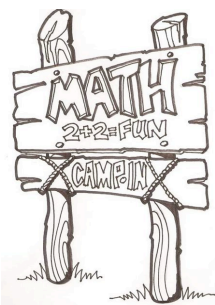
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MVP'S IN MATH FOCUS ON THE "MOST VALUABLE PRACTICES"-THE EIGHT MATHEMATICAL PRACTICES IN THE COMMON CORE STATE STANDARDS FOR GRADES K-12. A TOTAL OF 18 MVP CUBES, GOAL SHEETS TO OBSERVE AND ASSESS LEARNING EACH COMMON CORE MATHEMATICAL PRACTICE, AND GREAT TEACHER INFO! EACH CUBE HAS 6 QUESTION PROMPTS, GIVING YOU 108 PROMPTS THAT YOU CAN USE TO FOCUS ON THE MATHEMATICAL PRACTICES WITH STUDENTS WHILE THEY SOLVE RICH WORD PROBLEMS AND TALK ABOUT MATH!

AND CHECK OUT MORE OF OUR MATH & SCIENCE PRODUCTS!



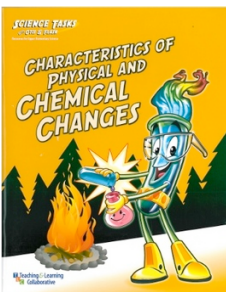
MATH CAMP-IN FOR GRADES 1-4

A GREAT WAY TO ENGAGE STUDENTS AND FAMILIES IN MATHEMATICS!



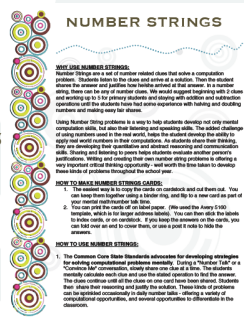
OUR MONEY MANIPULATIVE

"CAUSE IT JUST MAKES "CENTS!"



SCIENCE TASKS WITH OTIS & FLASK

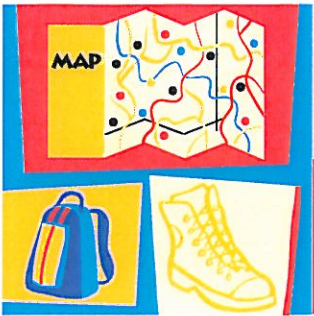
NINE SCIENCE CENTERS FOR GRADES 3-6 THAT CAN BE DOWNLOADED SEPARATELY



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Math Camp In Educator Trail Guide

*Math Camp In
Experience for
Second Grade
Classrooms*

HIKE THROUGH THE WORLD OF MATHEMATICS!

Dear Educator,

We are so excited that you will be hiking the **Math Camp In** Trail with us! Inside your Educator Trail Guide, you will find tips on how to organize a **Math Camp In** experience and information about each station included on the hike.

Our goal is to allow students the opportunity to apply their mathematical knowledge using interesting and complex problems. We have taken that goal and combined it with an exciting theme to allow students the opportunity to experience mathematics in a unique setting.

We hope that you have as much fun as we have had with our students using **Math Camp In!**

Kelli Shrewsberry
Director, TLC

Jessica Cahill
Teacher, SWCS

Camp-in-a Box

Your Camp-in-a-Box contains most materials needed to create a **Math Camp In** experience. The materials that are not provided are materials that are easily found in classrooms or are perishables. Donations from parents, PTA/PTO's and mini grants are easy ways to get these last few items you will need for Math Camp!

***For additional information visit us at
teachinglearningcollaborative.org***

Camp-in-a Box

Your Camp-In-a-Box includes:

- 26 Journals
- 26 Nametags
- 26 Camp Crafts
- Badges for each Trail post station
- 5 small Mirrors
- 5 Measuring tapes
- 26 Growing Insects
- 26 Jumping Bugs
- 26 Camping Sticker Scenes
- Toothpicks
- Ziplock baggies
- Tablecloth for each station
- Sleeping Bag clue templates and station directions are included in the Trail Guide

Getting Started

You have taken the first step of an exciting hike! Whether you are brave enough for the Overnight Math Camp Experience or just want to use **Math Camp In** within your classroom, this is an opportunity that students will never forget.

Getting ready for **Math Camp In** is easy to do! Just follow some simple steps and you'll be Camping In: Math Style in no time!

- About **a month before your Camp date**, send home a letter to parents telling them about the camp experience. At this time, you can also ask for donations for the materials that still need to be provided.
- **About a two weeks before Math Camp**, send home a second letter telling about the important details that should not be forgotten. Examples are included in the Support Materials section beginning on Page 21.
- **The week of Math Camp**, gather the materials needed for each station and cut the badges apart for each station.
- Have students put their name-tag together prior to camp. Their camp name (See Page 22) should be on the front and their initials on the back.
- If you are having an after school event, place the name-tags at a table to help with sign in. This way you will know who is attending.

Recruiting Volunteers

As part of the first letter you send home, ask for volunteers for the **Math Camp In** event. Times begin when the event begins and are in intervals of one hour. If you are using the overnight experience, parents the option of staying overnight, however, most "take the night off" as written in the letter.

"Recruiting older students to help at the Math Stations is an excellent way to collaborate with teachers in other grade levels!"

Another option is partnering with a classroom in an upper grade. Older students become "Camp Counselors" and learn two sta-

tions that they conduct during the night. If you have an older grade level to team with, this is an excellent opportunity for them to develop their mathematical thinking skills.

NOTE: Due to safety issues, **DO NOT** let older students conduct the SMORES station.

Organizing an Overnight Math Camp In Experience

As students begin to arrive for the evening, have them set their sleeping bags and gear in the gym or an area you will be using. In a second area, like the cafeteria, set up tables with the stations already set up. (Students do not begin those yet). Parents sign in their child and leave a phone number that they can be reached at. Campers pick up their name tag, or can create their name-tag while everyone arrives.

Once everyone has arrived, one teacher takes the campers to review expectations and Camp Rules. They learn the Camp Signal ($2+2=4$) and recite the Camp Oath. It is also important to emphasize having them put their name on everything.

At the same time, another teacher takes the parent or student volunteers to the stations and discusses each station and what to do. At each station is a station card on a

file folder with the activity, questions to ask students, and possible answers.

The campers come in and divide between the stations. They can freely rotate as long as the station is not over-crowded. Pizza is available during the stations and when everyone is finished, we watch a camp themed movie and then LIGHTS OUT! Parents pick up their child by 8:30am the next morning.

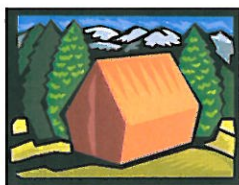
Trail Post #1: Camping Scene

Students create a camping scene and write a word problem. Here, they combine addition, subtraction, multiplication and division skills. They are also asked to represent their knowledge with pictures and words to help explain their understanding of the concept.

This activity addresses Grade Level Indicators from the Number & Number Sense Standard and the Patterns, Functions & Algebra Standard.

Grade Level Indicator:

- ∞ Model, represent and explain subtraction as comparison, take-away and part-to-whole; e.g., solve missing addend problems by counting up or subtracting
- ∞ Use objects, pictures, numbers and other symbols to represent a problem situation.



Materials Supplied:

Journal page
Sticker Scene with stickers
Station badges

Materials Needed:

Glue (glue sticks will work best)

Trail Post #2: Pattern Block Pictures

This activity combines a student's knowledge of geometric shapes and money. Students are asked to create a picture using pattern blocks. Each block represents a certain amount of money. Once the design is complete, they transfer the design using a geometry template or by tracing the shape. To complete the problem they add the values of each shape to find the total the cost of the design.

This activity addresses the Number, Number Sense & Operations Standard.

Grade Level Indicator:

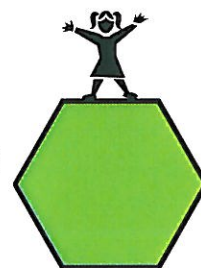
- ∞ Count money and make change using coins and a dollar bill.
- ∞ Represent and write the value of money using the ¢ sign and in decimal form when using the \$ sign

Materials Supplied:

Journal page
Station Badges

Materials Needed:

Pattern Blocks
Templates (optional)
Crayons



Trail Post #3: The Great Bug Jump!

In the Great Bug Jump, students choose a bug and measure several trials to document the distance their bug jumps. Using this data, they create a graph to represent the distance jumped by the bug on each trial.

This activity focuses on the Measurement Standard as well as the Data Analysis Standard.

Grade Level Indicator:

- ∞ Identify and select appropriate units of measure
- And from the Data Analysis Standard
- ∞ Pose questions, use observations, interviews and surveys to collect data, and organize data in charts, picture graphs and bar graphs

Materials Supplied:

Journal Pages
Station Badges
Measuring Tapes
Jumping Bugs

Materials Needed:

Tape

Trail Posts 4: Trail Mix Math

Students will enjoy creating a quick snack to keep them going on their Math Trail Hike. You provide the ingredients and students provide the measurements as they master the Measurement Standard:

Grade Level Indicator:

- ∞ Select and use appropriate measurement tools; e.g., a ruler to draw a segment 3 inches long, a measuring cup to place 2 cups of rice in a bowl, a scale to weigh 50 grams of candy.

In addition, students problem solve through questions about what to do

if they don't have 1 tbsp to measure with and only have 1/2 tbsp, or if they only have 1/4 cup or 1/2 cup. Students then address the Number Sense & Operations Standard

Grade Level Indicator:

- ∞ Represent fractions (halves, thirds, fourths, sixths and eighths), using words, numerals and physical models.

Materials Supplied:

Journal Page
Station Badges
Ziplock bags

Materials Needed:

Measuring cups and spoons (5 sets)
Chex mix, raisins, Teddy Grahams, M&M's, fruit bits

Trail Post #5: Big Bugs!

Bugs always seem bigger at camp! Here, students measure the area of their bug prior to it being at camp overnight. They add some water and something amazing happens! Students awake in the morning to see their bug has grown in size!

Use room temperature water and have students put their name on the ziplock bag.

While measuring area does not appear as a Grade Level Indicator, we

"The hardest thing is to remember to go back to this problem the next morning and measure again!"

do feel it encompasses adding fractions of parts to whole and is a developing skill for third grade.

Materials Supplied:

Journal page
Station Badges
Ziplock bags
Growing Insects

Materials Needed:

Water
Permanent markers

Trail Post #6: We Want SMORE Math!

This will be one of the most popular stations. Who can resist SMORES? Metal chafers hold sterno cans and allow students to roast marshmallows. The volunteer at this station can discuss fractional parts of the candy bar with the Hershey's book on fractions. Students then create their SMORE and then complete the camp craft. A safe alternative is to use marshmallow crème instead of actually roasting marshmallows.

This stations emphasis is on Number Sense & Operations with the following **Grade Level Indicator:**

- ∞ Represent fractions using words, numerals and physical models



Materials Supplied:

Journal Page
Station Badges

Materials Needed

Graham crackers, Hershey bars
Marshmallows (or crème)
Sterno cans, matches
Forks to roast with
Hershey Book on fractions

Trail Post #7: Crack the Code!

In Crack the Code, students try to answer the riddle by determining lines of symmetry for letters in the alphabet and fill in the missing code pieces to find the answer. This activity meets the Geometry And Spatial Sense standard.

Grade Level Indicator:

- ∞ Create and identify two-dimensional figures with line symmetry; e.g., what letter shapes, logos, polygons are symmetrical?



- Q. What did the acorn say when he grew up?
A. Gee- I'm a Tree!
(Get it? GEOMETRY!)

Materials Supplied:

Journal page
Station Badges
Mirrors for station (5)

Materials Needed:

None

Trail Post #8: Bubble Tents

By creating Bubble Tents, students investigate the world of 3-Dimensional shapes by creating and manipulating the shapes. By completing each tent, students master the Geometry & Spatial Sense Standard

Grade Level Indicator

- ∞ Identify, describe, compare and sort three-dimensional objects (i.e., cubes, spheres, prisms, cones, cylinders and pyramids)

according to the shape of the faces or the number of faces, edges or vertices.



Materials Supplied:

Journal Page
Station Badges
Toothpicks

Materials Needed:

Raisins
Dish soap
Container for soap solution

Trail Post #9: Lights Out!

Getting the campers to sleep can be a little tricky, but not at this station! Here, students read clues and determine who belongs in the sleeping bag based on the clue given. A lot of critical thinking happens at this station and students show their understanding of the Patterns, Functions and Algebra Standard with the following:

Grade Level Indicator:

- ∞ Use patterns to make generalizations and predictions; e.g., determine a missing element in a pattern.



Getting the campers to sleep is no problem at this station!

Materials Supplied:

Journal Page
Station Badges
Sleeping Bag Templates (found in Trail Guide)

Materials Needed:

NOTE: Cut, mount and laminate sleeping bags and they will last longer.