



# MCP Principal Links

April/May 2013  
Volume 5 Issue 5

## MCP 2013-2014 Schedule

On **August 9th** there will be a professional development session for facilitators only. Coach professional development will tentatively take place the following days:

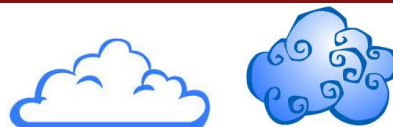
|                 |                 |
|-----------------|-----------------|
| Mon, Tues       | September 9, 10 |
| Wed, Thurs      | October 30, 31  |
| Thurs, Fri      | November 7, 8   |
| Thurs, Fri      | December 5, 6   |
| Thurs, Fri      | January 30, 31  |
| Thurs, Fri      | February 20, 21 |
| Thurs, Fri      | March 27, 28    |
| Thurs, Fri      | April 10, 11    |
| Wed, Thurs, Fri | May 7, 8, 9     |

## Finish Strong, Keep Going

Summer is fast approaching, and students - and the rest of us - are getting restless. Encourage coaches to use their fabulous creativity to harness students' energy into projects or active activities in the mathematics classroom. Keep the momentum of this great year going until the very end! We at the MCP strongly encourage coaches to attend professional development of some kind (of their choice) over the summer.

## Food for Thought

Looking at a picture of downtown Columbus, what kinds of mathematics do you see? Pose this question to your students!



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## When Math Gets Beautiful

A kindergartener was asked, "What tool would you use to measure weight?" The student said, "a ruler!" Instead of correcting the child, the teacher asked the student to explain how she would use a ruler. The kindergartener said, "I would hold it this way (horizontally), and then put some blocks under the middle to make it higher and then put some blocks on one end and some on the other, and when the ruler moves like this (tilted) this side would be heavier!"

## Textbooks

Many administrators have expressed concern about textbooks. It may be time for your school to order books and you are wondering which book best fits the MCP Model. Here at MCP, we stress the need for mathematics to come out of the textbook and into life. Rather than ordering classroom sets of books, order the teacher several different textbooks and let him or her use them as resources rather than the curriculum determiner. Textbooks contain many rich problems or bases for rich problems. Let the teacher decide what works for the students!

## Coaches, Teachers & the MCP Approach

The MCP Coaching approach focuses on getting students to use their own thinking to demonstrate what students know and are able to do in mathematics. Once teachers see what their students can do the coach assists the teacher in navigating instruction for each student. This process then forefronts student thinking and instructional strategies follow. Teaching practice is guided by how students are thinking, rather than student thinking being guided by the teaching style. This ultimately maximizes student learning!

## Remembering Why We Coach

Even the most talented people in the world - Tiger Woods, Michael Jordan, Venus Williams - have coaches. Coaches help us improve, refine, and expand our skills. So the question is *why not* have a math coach?

## Send us your good news!

One principal reported last month that the energy brought by her coach has spread throughout the entire building, and she is most happy with this change. If you have reflections or stories about the impact your Math Coach has had in your building or district, please share them with us! Email us at [mcp\\_coaching@osu.edu](mailto:mcp_coaching@osu.edu) or post them on our Facebook page!



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## PROBLEM OF THE MONTH

Ask yourself **how you would solve the problem and how you think the students would solve this problem?** Then consider the data at the bottom of the page about how a sample of students solved the problem.



Straws are arranged as shown in the figures.



Figure 1



Figure 2



Figure 3

If the pattern is continued, how many straws would be used to make Figure 10? Explain your solution.

Is it possible for a figure in this pattern to have been made of 43 straws? Please explain why or why not.



## 5th Grade Student results

| Score                | Criterion                                                                                                                                                 | Number of Students |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 0                    | Provided a wrong visual representation of pattern or an incorrect number of straws or squares.                                                            | 82                 |
| 1                    | Considered a full square as a straw as opposed to considering each individual side of the square as a straw or provided an accurate drawing of figure 10. | 71                 |
| 2                    | Correctly identified the number of straws needed to create figure 10 and explained why 43 was no possible                                                 | 10                 |
| NA                   | No answer.                                                                                                                                                | 4                  |
| Average Score 0.5583 |                                                                                                                                                           |                    |

The following are a list of solutions that students provided for the first part of the question:

- Other responses were most common
- 10 straws with a justification
- Students drew figure 10 correctly and provided a justification
- Students drew figure 10 correctly but did not provide a justification
- Students stated 33 straws were needed and counted the lines as indicated by tick marks or drew figure ten and counted
- Students stated 11 straws were needed with a justification
- Students stated 33 straws were needed and either made a table or found a pattern
- Students stated 7 straws were need and provided a justification
- Students stated 10 straws were needed but provided no justification

Based on the response to part a, students used a similar argument to explain why or why not 43 straws was possible in part b.

## Problems to Stimulate Children's Thinking

What place in this world can have their temperatures Fahrenheit and Celsius equal?

Johnny's mother had three children. The first child was named April. The second child was named May. What was the third child's name?

How can you add together eight 8's to get 1,000?

Two fathers and two sons sat down to eat eggs for breakfast. They ate exactly three eggs, each person had an egg. How?

A square triangle: Is it possible to construct a triangle such that the measure of each of its angles is a perfect square?

## Administrator SharePoint Website

MCP utilizes Microsoft SharePoint as a management tool for communication and data collection. There is a site specifically designed for administrators which can be accessed at <http://collaborate.csnp.ohio-state.edu/sites/mcpadmins>. If you are new to MCP and have not used our SharePoint site before, you will need a username and password to log in. Please contact [mcp\\_coaching@osu.edu](mailto:mcp_coaching@osu.edu) for technical support.