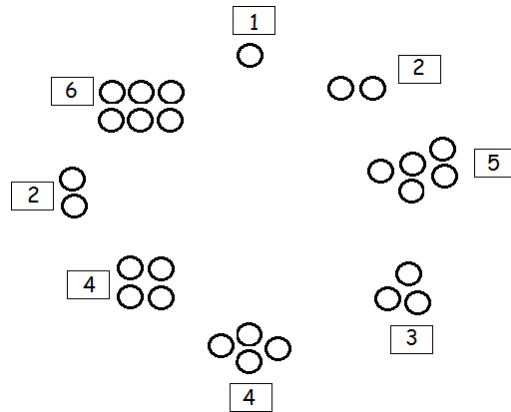


## March Teacher Directions: Math-terpieces

**Pre-Activity:** Before reading the book, prepare the children for the math. The book involves putting subsets of objects together to make a given sum. A nice way to introduce the book is to have children sit in a circle and place some groups on the floor in front of them, using an arrangement that looks something like this:



The objects in the groupings can be all the same thing, like little blocks, or you can use different objects in each group, like 1 CD, 2 pencils, 3 Post-It™ pads, 4 markers, 6 paper cups, etc. Begin by having them count the objects in each small set, and putting a little Post-It next to it, so they remember how many are in each grouping. Then ask “Who can make a 6?” Someone will probably pick up the grouping that has 6 objects. But then ask, “Who can make a 6 a different way?” Possible ideas would be  $5+1$ ,  $4+2$ ,  $3+2+1$ . Try several different numbers, then start reading the book.

**Read the Book:** Math-terpieces, by Greg Tang

Ask children if they have ever been to an art museum, and what they remember about that experience. Explain that each page of this book has a painting by a famous artist, but there are many other famous artists that are not pictured. The first painting is a ballerina painting by Edward Degas. Read the poem and have children find ways to combine the ballet shoes to make a 7. There are only three ways, so they can probably find all three ways. On subsequent pages, see how many they can find but tell them that they have to find at least TWO different ways. [Later they can spend more time finding all the answers.]

**An Activity Using the Pages from the Book:** This activity requires that you take the book apart. Get twelve transparent sleeves, one for each task. Get pieces of colored photocopy paper and put a different task at the top of each one, then place the task and matching picture inside one of the sleeves. These can be used by pairs of students or in small groups, where the children have to see how many combinations they can find. Here are the twelve tasks involved:

- |   |  |
|---|--|
| Ballet Shoes: Find three ways to make a 7.  | Fish: Find six ways to make a 9.       |
| Lilies: Find four ways to make an 8.        | Eyes: Find six ways to make a 10.      |
| Umbrellas: Find five ways to make a 9.      | Squares: Find eight ways to make a 7.  |
| Peaches: Find five ways to make a 10.       | Clocks: Find seven ways to make an 8.  |
| Swirling Stars: Find four ways to make a 7. | Spatters: Find seven ways to make a 9. |
| Purple Spots: Find six ways to make an 8.   | Soup Cans: Find ten ways to make a 10. |

Note that if you don't mind sacrificing two books to this activity, you can put the poem on one side of the transparency, and the matching objects on the flip side. [It is not possible to do this with one book because the two matching pages are facing each other, not on the flip side of each other.]

**Free Downloadable Worksheets:** The two free handouts are from the Let's Read Math Funbook 1. Math-terpieces is one of the 16 books featured in Funbook 1. Page 23 is a recording sheet, for students to record the different combinations they were able to find for each picture. Page 24 is about the artists. Children are to choose an artist, find out about the artist, and make a painting "in the manner of" the artist. Many children prefer to do their art work on a separate page, so they are not confined to the small frame that is shown on the Funbook page.

Take things a step further and have children choose a different artist, someone not pictured in the book. Show them pictures from art books that you might have, or post cards obtained from a museum, or prints of paintings (possibly from the art teacher!) Another idea is to actually take them to an art museum where they can look for the artists in the book, but also find other artists of interest to them. If possible, have them look for information about the artists online.

**Weblinks of Interest:** Go to the Let's Read Math website at [www.letsreadmath.com](http://www.letsreadmath.com) and go to the tab that says "Weblinks." There are weblinks related to each of the books featured in the Let's Read Math Funbooks. Under Funbook 1, you will find Math-terpieces and these links of interest: There is one link that involves playing a game called "Busy Bees" where children use subtraction or finding the missing addend to solve problems about bees. Then there are links related to the artists Cezanne, Monet, Renoir, VanGogh and Seurat. [Websites are always changing, but we try to stay current. ] See what other artists you can find and add them to your own personal weblink list.

**Auxiliary Activities:** If you decide to purchase the "Book of the Month Packet" (for \$19.99), you will get a copy of Math-terpieces and some auxiliary worksheets that are useful for playing more rounds of "Can you make this number?" There are sets of farm animals [in color] so you can ask children "How many ways can you make a 7?" – or 8, or 10, or 12, etc. Then there is a set of vehicles, in black and white (so you can photocopy them to make as many as you want). Children can color the cars, vans, trucks and motorcycles and cut them out to make a collection of vehicles. They get to decide the total number and write an equation to match what they did. For example:  $10 = 3 \text{ trucks} + 5 \text{ cars} + 1 \text{ motorcycle} + 1 \text{ van}$ . They can even abbreviate by writing equations like  $10 = 3T + 5C + 1M + 1V$ . [Does this look like algebra?]