

Selected samples from:



# Color Math

## Teacher's Manual

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# Pre-School Math Tasks and Activities

In general all activities in the McRuffy Press Pre-School Math curriculum have some value regardless of the ability level of the child as long as the activity is not too difficult. Pre-school learning deals with both form and substance. Activities that may be too easy for the child in terms of educational content still give the child practice listening, following directions, interacting with the teacher to develop school related speech, and simply working in a more formal instructional setting.

Also consider the depth of understanding a child might or might not have. For example, students may be able to count from 1 to 10 without having a concrete understanding of what the numbers mean. Working through the activities, develops a deeper understanding of number concepts.

The curriculum uses the term *task* for the different lesson activities. This is to make a distinction between Math Workbook activities. Not every lesson uses a workbook activity. A variety of materials are used such a manipulatives (counters, pattern block shapes, etc.), cards, resource pack pages, and games.

We encourage you to use as many of these tasks as possible. Don't hesitate to repeat tasks on different days. Repetition is a natural part of learning at all ages, especially for young children. Combine several tasks in a day, especially across several categories, such as a memory task, a matching task, and a shape recognition task. As children mature academically, many of these tasks will only take a few minutes and need very little instruction. Your child may even develop some favorites that he or she might want to revisit on a daily basis. The curriculum is designed to be flexible.

Unlike our curricula starting in Kindergarten, the Pre-School program does not necessarily follow a daily sequence. This is to accommodate the wide variety of learning needs at the pre-school age. The curriculum's purpose is to prepare young children with the foundational concepts that will make it easier for them to transition into kindergarten programs such as the McRuffy Press math and reading programs.

Pick and choose activities throughout the teacher's manual as you teach on a daily basis. Color coded corners are formatted into the lesson plans to help find the different sections. See the table of contents on the next page for the color key.

The most foundational skills are in the purple section. We recommend working through at least some of each of the different foundational tasks (purple corners) before venturing out too much in the teacher's manual. Usually the first few tasks in each category are the most foundational for the other tasks.

# Pre-School Teacher's Manual Table of Contents and Color Key

The color of the words matches the color key for the tabs. The abbreviations in the tabs are the first three letter of the words or the number range for number introduction.

## *Foundational Concepts*

Memory Skills	10
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Shapes	13
Color Recognition	23

## *Working Vocabulary*

Directional Vocabulary	25
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## *Number Introduction*

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## *Additional Concepts*

Patterns	70
Counting to 20	80
Addition (Pre-Addition)	81
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## Preschool Puzzle Book

The preschool puzzles help build early geometric skills. Students interact with size, shape, angles and other geometric concepts in an informal and playful manner. Puzzles are not designated in the lesson plans. Plan them any days you choose.

The puzzle book contains puzzles that are made using hands-on manipulatives. Three types are used: color cubes, pattern blocks, and tangrams. From a geometric standpoint the cubes are the simplest manipulative. All pieces are the same size and shape (one inch cubes). Pattern blocks are a bit more complex. Pieces are different sizes and shapes. Many pieces are interchangeable so the puzzles can be made in many different ways. Tangrams are the most complex because of the limitations of having only seven pieces.

Page 2 of the Puzzle Book shows the six different pattern block shapes and the seven pieces in a tangram set.

The puzzles can be used at any point in the curriculum. The book is arranged by puzzle type with the easiest color cube puzzles first, pattern block puzzles next, and the tangram puzzles last.

Students may work one puzzle or many puzzles in a single day. They may also do a variety of the three types of puzzles.

### Puzzle Guide

#### Puzzles 1 to 22 Color Cube Puzzles

Students will build the puzzles directly on the puzzles by matching colors of cubes.

For more advanced puzzle building the designs could also be built on a table top while only looking at the book, not placing the cubes directly on the book.

#### Puzzles 23 to 61 Pattern Block Puzzles

Each pattern block puzzle has two formats. One page shows a completed version of the puzzle. Many pattern block pieces are interchangeable, so an outline version is on the opposite page.

The easiest way to make the puzzle is to build directly on top of the puzzle.

The next level of difficulty would be to simply make the puzzle on the outline. The complete design can be folded back out of view.

The third level of difficulty would be to have students make the exact puzzle as the completed design, but building it on the outline.

#### Puzzles 62 to 100 Tangram Puzzles

Like the pattern block pages, the tangram puzzles also have the two formats. One shows interior lines, the second shows only the outlines.

Puzzles 62 to 65 and 100 cannot all be made at once with a single set of tangrams. All the others can make all the designs at once with only one set.

Levels of difficulty are the same as with tangrams, but the most difficult exercise would be to build the designs with just the outlines and the design with interior lines folded back out of sight.

(Teacher's Manual  
Activity Instruction)

Purpose: To use directional vocabulary on a workbook page.

Materials

Math Book Activity 10

Teaching

Use the Math Book page with the flip sheet and dry-erase marker. **There are three rows of animals. Each animal has circles around it. Listen for directions to decide which circle to color.**

**Find the first row. It has a purple square in front of it. Fill in the circle above Eweness the Sheep. Fill in the circle below Fluff the Cat. Fill in the circle below Thump the Rabbit. Fill in the circle above Ruff the Dog. Fill in the circle above Chip the Chimp. Fill in the circle below Grizz the Bear.**

**Find the next row. It has a yellow square in front of it. Fill in the circle below Eweness the Sheep. Fill in the circle above Fluff the Cat. Fill in the circle below Thump the Rabbit. Fill in the circle above Ruff the Dog. Fill in the circle below Chip the Chimp. Fill in the circle above Grizz the Bear.**

**Find the bottom row. It has a red square in front of it. Fill in the circle below Eweness the Sheep. Fill in the circle below Fluff the Cat. Fill in the circle above Thump the Rabbit. Fill in the circle below Ruff the Dog. Fill in the circle above Chip the Chimp. Fill in the circle below Grizz the Bear.**

The activity can be repeated on other days using different instructions.

Activity 10


The activity grid consists of three rows of animals. Each animal has two small circles around it, one above and one below. To the left of each row is a colored square indicating the starting point for directions.





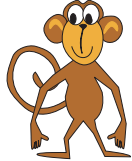

- Row 1 (Purple square):** Eweness the Sheep (top circle), Fluff the Cat (bottom circle), Thump the Rabbit (bottom circle), Ruff the Dog (top circle), Chip the Chimp (top circle), Grizz the Bear (bottom circle).
- Row 2 (Yellow square):** Eweness the Sheep (bottom circle), Fluff the Cat (top circle), Thump the Rabbit (bottom circle), Ruff the Dog (top circle), Chip the Chimp (top circle), Grizz the Bear (top circle).
- Row 3 (Red square):** Eweness the Sheep (bottom circle), Fluff the Cat (bottom circle), Thump the Rabbit (top circle), Ruff the Dog (bottom circle), Chip the Chimp (top circle), Grizz the Bear (bottom circle).


# (Workbook Page sample)





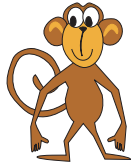

Activity 10


Above and below: follow the teacher's direction to fill in circles.









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