The Quarterly extension projects are for teachers, students and their parents to create and share their math knowledge with one another.

Implementing Investigations:  Scope and Sequence for Grades 3 thru 5 TM (pp. 93 – 116).

The Quarterly Extension Projects are open ended and designed to reinforce the five strands of mathematics that are taught in grades 3 – 5 and beyond.

1. **Number and Operations:** Understanding and working with an array model of multiplication; Reasoning about numbers and their factors; Describing, Analyzing, and comparing strategies for adding whole numbers; Understanding and sing the relationship between multiplication and division to solve division problems; Representing the meaning if multiplication and division.
   
   Grade 4 - Units 1, 3, 5, 6, 8               Grade 5 – Units 1, 3, 4, 6, 7

2. **Patterns, Functions, and Change:** Using Graphs to Represent Change; using tables to represent change; Describing and representing a constant change rate of change.
   
   Grade 4 - Unit 9   Grade 5 - Unit 8

3. **Data and Probability:** Representing Data; Collecting Data; Describing, summarizing and comparing data; Analyzing and interpreting data; Designing and carrying out a data investigation; Describing the probability of an event.
   
   Grade 4 - Unit 2           Grade 5 - Unit 2

4. **Geometry:** Describing and classifying two-dimensional figures; Creating and Describing and measuring angles; Creating and describing similar shapes.
   
   Grade 4 - Unit 2,4,7        Grade 5 - Unit 2,5

5. **Measurement:** Measuring with Standard Units; Finding and Understanding Area; Finding Perimeter and Area Rectangles; Structuring rectangular prisms and determining their volume; Structuring prisms, pyramids, cylinders, and cones and determining their volume.
   
   Grade 4 - Unit 2         Grade 5 - Unit 5

All Quarterly Projects created can be done by students independently, in small groups, or by the entire class. Quarterly Projects are open ended enough that they can be done at anytime during the school year. They can also be on going throughout the school year.
Architecture & Model Project

1. Choose a building that you would like to study. Find at least three different sources

2. Study the building and its architect(s)

3. Create a poster board with the following information:
   a. Who - persons or persons who built it.
   b. What - materials they used.
   c. Where - location on the planet.
   d. When - date it was built.
   e. Why - the building was created.
   f. How - people involved.
   g. Illustration of building
   h. Resources listed on the back of poster.

4. Create a model of the building.
   a. Building specs. 12" x 12"
   b. use any type of material
   c. Involve family members in this project.

5. Present project to your class.
**Grocery Store Challenge**

**Challenge #1**

*To buy groceries for a family of four for a week spending the least amount of money.*

- Class creates grocery lists of items that everyone agrees will be purchased.
- Use coupons, stores’ sales ads, and your own initiative to buy the grocery lists.

Good Luck! A free lunch with your teacher is your reward!

**Challenge #2**

*To go shopping with your family and find the best deals at the store for what is on your family’s list.*

Return the results to your class to summarize and compare data with other students.
You are now out on your own!

1. Choose a profession that you may want to pursue in the future. Find out what the going salary rate is.

2. Create a life style for yourself that can allow you to save 10% of your gross income.

3. Find a home/apartment that you can afford to pay monthly payments based on your monthly income.

4. Buy necessary items to wear to work; furnish your new place; utility expenses; other monthly expenses.

5. If you still have money left at the end of the month you should think about where to put it to use.

A penny saved is a penny earned.
Amazing Animals

Class activity that you can use throughout the year.

The more information, the more data your class can compare, summarize, interpret, and analyze.

Every student does the following:

Find out as much about their favorite animal as they can: (minimal)

1. Species Name/Animal Kingdom
2. Looks like: body parts
3. What your animal eats
4. Where your animal lives
5. When it sleeps