Investigations: Teaching Resources

Introduction

This guide provides an explanation of the Investigation teacher resources.

The following are the materials discussed in this guide:
- Implementing Investigations guide
- Curriculum Unit
- Resources Binder

Implementing Investigations

The Implementing Investigations guide provides information about the math that is taught. Parts 1 and 2 explain introductory information, such as the philosophy, organization, and components of the program. Part 2 also discusses how to arrange the classroom.

A highlight of the guide is Part 3. Here, teachers will read about the topics students learn during the year. It states the mathematical emphases or objectives, concepts taught, examples of strategies students use, and benchmarks students should reach. This part of the guide maps out what teachers need to teach during the course of a year in a manageable way.

Part 4 details the grade-specific activities that teachers facilitate outside of the math block to maintain and apply math skills. This includes Classroom Routines for Grades K–3 and Ten-Minute Math for Grades 3–5. Grade 3 uses Classroom Routines and Ten-Minute Math, so both activities are explained in the Grade 3 Implementing Investigations guide.

Classroom Routines are done regularly and offer practice and review of concepts while Ten-Minute Math is done less frequently and supports and balances the in-depth work of each Curriculum Unit.

One example of a Classroom Routine in the primary grades is Today’s Question, in which students record their answer to a survey question with two possible answers on a two-column table. An example of Ten-Minute Math in the intermediate grades is Number Puzzles: students work in pairs to identify the number or numbers that fit three given clues. One type of activity both Classroom Routines and Ten-Minute Math share is Quick Images. After seeing an image for a few seconds, students either draw or build a copy of it based on the mental picture they created during the brief viewing. This activity helps students visualize patterns and geometric figures so they can express math concepts through images, words, and numbers.

After their first introduction during a lesson, these activities are intended to take place outside of math time. These tasks work well during a morning meeting, before recess, or at the end of the day.

Part 5, Technology in Investigations, explains calculator use in the
classroom as well as how to introduce and manage the student software: *Shapes* for primary grades and *LogoPaths* for intermediate.

More information is available in the Student Software tutorial on MyPearsonTraining.com.

Parts 6 and 7—the Professional Development and Working with the Range of Learners sections—provide information about how students learn. This collection of essays and grade-specific cases assist teachers in setting up their rooms and activities.

A series of reference tools is located within Parts 8 and 9 of the guide. Teachers can quickly and easily locate standards or vocabulary they may need while planning.

The Scope and Sequence section lists the math emphases and focal points for each level as well as for the preceding and upcoming grades. Understanding what students should already know and how the topics they learn are applied in a future grade helps teachers stay focused on the curriculum at their grade level.

Read the Implementing Investigations guide from cover to cover to understand the program goals and for advice on how to teach Investigations successfully.

There are nine units for each grade level, except Kindergarten, which has seven. The following sections are found in every Curriculum Unit for every grade:
- Introduction and Overview
- Teacher Notes
- Dialogue Boxes
- Student Math Handbook
- Index

One of the features of the Curriculum Units is that each Investigation is represented by a different color. This is one of the many ways that Investigations helps teachers stay organized. Pages are color-coded as follows:
- Investigation 1 is green
- Investigation 2 is red
- Investigation 3 is purple
- Investigation 4 is orange
Each Investigation is labeled with a title, the planner page, and the Sessions (or lessons) within the Investigation.

The *Teachers, Let’s Investigate* tutorial on MyPearsonTraining.com provides further details.

**Curriculum Units—Teacher Helpers**

The Introduction and Overview section is worth reading before teaching a unit. One part of this section is an Overview of This Unit chart that organizes the concepts and activities taught. There is also a suggested time frame for the unit.
Another feature of the Introduction and Overview section is Mathematics in This Unit. This is similar to Part 3 of the Implementing Investigations guide; the difference is that the information is unit specific.

Subsections called Looking Back and Looking Forward explain what students already know and what they will continue to learn about a topic. Samples of student work and dialogue are inserted throughout the section.

Assessments are represented in this section as well. There are ongoing, written, and portfolio assessment opportunities for a unit.
The Algebra Connections section highlights algebraic tie-ins and how students are prepared to think algebraically. Sample conversations between teachers and students give teachers an idea of what to consider when teaching and speaking with their students about math.

Other sections are Classroom Routines for Grades K–3 and Ten-Minute Math for Grades 3–5. These list the practice and review activities used in a unit.

Other unit-specific resources are the Practice and Review section, which explains where key concepts are reinforced, and the Differentiation section, which gives suggestions on how to help and engage students who require additional support, challenge, or assistance with language barriers.

Professional development resources are located toward the back of the unit. A plastic divider separates these professional resources from the teaching resources in the Curriculum Unit. The Teacher Notes offer information about the math content in a unit and how students learn, and the Dialogue Boxes give examples of how class discussions may evolve during different Sessions.

In addition, images of pages from the Student Math Handbook used in the unit and an Index provide easy reference and support.
Resources Binder

The Resources Binder holds all the masters needed for copying, the CD-ROMs that come with the program, and the transparencies teachers use during Investigations.

The masters are organized by unit and are numbered with the unit number, then $M$, and then a page number (e.g., Unit 1 M13). The pages are numbered by unit, so there is more than one M13 in the binder. Look for the corresponding unit to avoid copying the wrong material before a lesson.

The CD-ROMs used in the program are in this binder as well. The CD-ROMs include the Resource Masters and Transparencies for teachers and either Shapes for Grades K–2 students or LogoPaths for Grades 3–5.

To get started using these resources, watch the software tutorials on MyPearsonTraining.com.

The Transparencies sections in the Grades 1–5 binders are a time saver. These pages are labeled with a $T$. Unlike the page numbers for the master’s pages, the transparencies are consecutive, so teachers do not need to look for a specific unit when searching for a page.

Review

This guide reviewed the teaching resources used in Investigations. To summarize:

- The Implementing Investigations guide helps teachers get started with Investigations and allows them to find information they may need while planning.
- The Curriculum Unit is the Teacher’s Guide. There are nine units for Grades 1–5 and seven in Kindergarten.
- The Resource Binder holds the software and all of the papers needed for copying and teaching.

These resources make teaching Investigations simple, convenient, and enjoyable!

To find out more about the products mentioned in this tutorial, visit MyPearsonTraining.com.