



# Introduction to Supermarket Science Materials

What You Need:

Parent Helpers

upermarket

## How to Use This Book

Supermarket Science Materials are organized into thematically linked sets with experiments and activities as well as background information that makes them easier to do. There are also a bunch of simple, fun art and writing projects. All of the activities can be done alone or in conjunction with other project sets. Choose activities that are developmentally appropriate to your children.

All Supermarket Science Materials are primarily geared toward students in elementary and secondary schools, as well as their parents and teachers, but can be expanded to higher grades. The activities are designed to advance the understanding of concepts of biology, ecology, geology, and sociology based on local resources like a backyard or a local grocery store. All of the materials in this set and others link the Core Curriculum Standards. Use the Core Curriculum Standards to focus the activities to a particular grade level.

There are also LEARN, SHOW, USE, DO, and TEACH pages. LEARN pages are designed to be given to the students. They contain explanations, stories, or diagrams. SHOW pages usually present interesting photographs or illustrations that demonstrate specific concepts. USE pages are created as supplemental materials for the activities and experiments. Moth and Butterfly Cards are examples of USE pages. And finally, the DO pages contain the actual activities and experiments. Please use the back of these pages as scrap and add additional pages as needed.

On some pages, there are icons of animals. For example, an activity about elephants might have an elephant icon next to it. These icons can be used as keys to link information between all of the Supermarket Science Materials.

Most DO pages have a What You Need list of items in the margin under the title of the activity. This is a quick reminder for what children should have while doing the activity. It might look something like a list on the right: Moth and Butterfly Cards pages, research books, pencil, scissors, parent helpers.

Some of the activities in this set use of cards from the Supermarket Science Cards or Stamps USE pages. Creating taxonomies is part of the scientific process. The card games and activities allow kids an opportunity to practice this skill.

There are many activities which can be done that require precision of observation and careful recording of data. This set shows some possibilities. We encourage you to come up with others. Think of these activities as inspirational examples, jumping off points.



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# Main Ideas

How to Use These Activities







In these activities, children are asked to analyze data and to come up with a scientific descriptions through logical reasoning and careful observation. You might notice that the illustrations of moths and butterflies in these activities are all in black and white. Sure color might have been more colorful, but by removing color, we help kids focus on other attributes. Of course once the children are done, they can repeat the activities with full color! Imagination's the limit.

#### Research

• Research basic information using visual and written information provided in these pages (a given source), a library, or some online source. We recommend Wikipedia.org. The SupermarketScience.com also has some videos that kids might find interesting and relevant to the subject area.

#### Precision

- Each label, name, or word has a specific meaning that all scientists in the same field understand to mean exactly the same thing.
- Descriptions of objects and events need to be precise enough to limit misunderstanding and misinterpretation by the readers as much as possible.
- "Fuzzy thinking" is not allowed!

## Logical Thinking

- There are two pathways in science: deduction and induction.
- Deduction is a process which puts together bits of data and evidence to build a theory—it's bottom up reasoning.
- Induction is the process which starts with an idea and then looks for data and evidence to support it—it's top down reasoning.
- Logical reasoning is a formal way of thinking (usually deductive) where each successive thought is built upon the previous one. As long as each link is a chain of logical reasoning is true, the end conclusion is true.

## Classification

• Objects can be grouped according to physical characteristics based on visual analysis, but there are many other ways of creating classifications (e.g. by eating habits).

## Do More

Teaching writing, math, and reading is easier in a context rather than in isolation. Ask your children to write a short story about what they've learned or to draw an illustration or both. There are infinite number of ways of expanding these activities to meet the needs of different kids at different stage of their development. We hope teachers, parents, and students will make more activities using the materials found in these sets. For example, consider discussing what other, non-physical characteristics can be used to form groups. Suggest smell—some moth have an odor. Different insects also live in different parts of the world (watch some of the videos) and can be sorted geographically.

Ask students if they can think of other games or activities that they can do using the cards or the facts they have learned while working on Supermarket Science Materials. For example, kids can create a set of cards for dinosaurs and do the activities in this book with those animals. The continents on the Map Cards can be cut out and moved to show their positions during the earlier epochs of Earth. The dinosaurs can be placed on this modified world map, provided that those animals existed during that time. The modern day atlas of animals can be compared with the dinosaur atlas. And finally, there are many black and white illustrations. Ask children to augment them with more details and color. Such focus helps find details and extends the value of these materials. Feel free to cut things out—you can always print more.

For example, if kids make their own connect the dots drawings, please share those creations with others. Such recognition would make those kids proud and encourage them to make more.

Kids can share their work online. SupermarketScience.com will try to post kids stories, art, and projects. How are these different from each other?