# PARENT HELPER GUIDE





## Introduction to Supermarket Science Materials

#### What You Need:







permarket

#### 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.

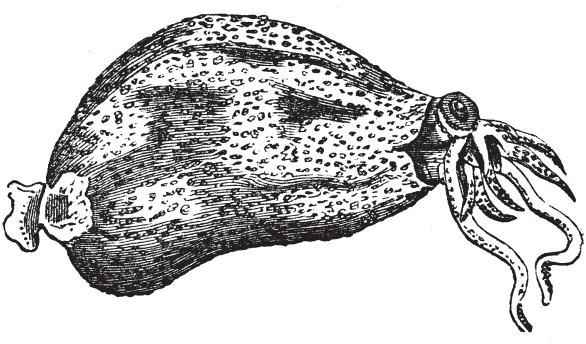
There are also LEARN, SHOW, USE, DO, and TEACH pages. LEARN pages are designed to be given to the students. They contain explanations, stories, or diagrams. SHOW pages usually present interesting photographs or illustrations that demonstrate specific concepts. USE pages are created as supplemental materials for the activities and experiments. Animal Cards and Map 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: Animal Stamps pages, Animal Cards pages, research books, pencil, scissors, glue, etc..

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 using information about animals and habitats. This set shows some possibilities. We encourage you to come up with others. Think of these activities as inspirational examples, jumping off points.





### Introduction to Supermarket Science Materials



Words in red are vocabulary words. They are used in a word puzzle DO pages.

#### Main Ideas

In these activities, children are asked to analyze data and to come up with a scientific conclusion through logical reasoning.

#### 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.

#### 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.

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?





## Squid Activities

## What You Need:





# Parent Helpers

#### **Summary**

In this experiment, students are asked to dissect a squid and examine its anatomy. Subsequent activities encourage the children to engage in some creative writing.

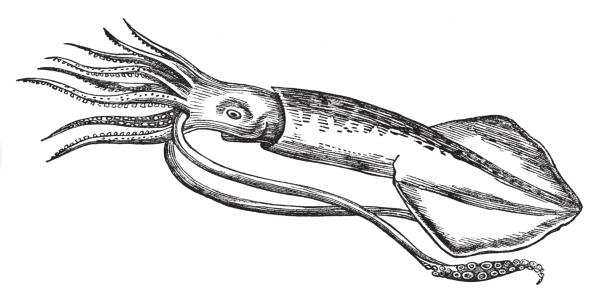
#### We strongly encourage parents to supervise these activities.

Frozen squids are found in many supermarkets, please make sure that you are getting the whole animal. When working with frozen squids, you will need to take some time to defrost them. When the animals is squishy and feels like a rubber band, you are ready to dissect.

You will need a paper plate as a dissection surface, a pair of scissors to cut the animal in half, a few tooth picks to extract the squid ink and to manipulate the various anatomical structures, and a zip lock bag to store the remains. Make sure to wash hands carefully after the dissection. We strongly encourage NOT to eat the animals that had been dissected by your children.



Girls in 4th grade dissect squids together.



#### What You Need for Owl Dissection

The following materials is the recommended set to master the squid dissection. You can get frozen or fresh whole squids at a fish monger or a local Asian market.

- Squid Anatomy SHOW Page
- · One squid
- Pencil
- · Tooth picks
- Scissors
- Paper plate
- · One zip lock bag (to throw away the squid remains with maximum efficiency and minimum smell)
- DO pages for the activities in this section (one per student)
- Parent helpers to assist students with setting up, clean up, and organization

