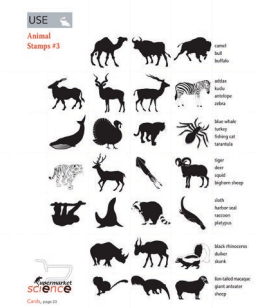



PARENT HELPER GUIDE



Introduction to Supermarket Science Materials

What You Need:





Name: _____ Camel

Origin: Asia

Food: Herbivore

Predator: _____



Parent Helpers



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.

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](https://www.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 in 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](https://www.supermarket-science.com) will try to post kids stories, art, and projects. How are these different from each other?



TEACH

Archaeological Dig Experiment

Treasures from the Past

This simple experiment can be done using every day objects. Kids can work together or in groups and share their results with the whole family or class. Groups can be made of kids of different ages.

The basic idea is to analyze a box of treasures. There should one box of treasure objects for each group or for each experiment. Each box should contain a set of objects chosen to represent a particular period in time: modern day, stone age, Victorian era, the 1960s, and so on. Try to pick objects that would be common for a particular period of time. For example, modern pennies and old computer CD's for present day; an LP record for the 1960s, stone tools and feathers for older periods; hand-carved wood objects, stone beads, and pottery pieces for periods representing 100 or more years ago. Garage sales, thrift stores, and just stuff found in your own back of the closet or garage or up in the attic are all good sources for little knickknacks that make excellent treasure objects. The objects should have no significant intrinsic value.

You will need to create at least one box, but it's more fun with four or five treasure boxes. If sand is used to bury the treasure, the sides of these boxes should be marked with coordinates to help students identify the location of each object. Just write numbers on the long edge of the box and letters on the short sides with a permanent marker. Space the coordinates about 1" apart. Kids can dig through their boxes, find the artifacts, and keep scientific logs of their work. If you can't make a treasure box, use images of the boxes below.



These treasure objects are made from natural materials: wood, clay, stone, shells—none are plastic. The objects represent an older time period.



Each group (or each experiment) should make a guess at the time period their objects belong to and geographic location from which they came. All guesses have to be defensible by the evidence unearthed during the dig. The [DO page Name That Treasure!](#) is designed to help kids record their findings in an orderly manner.

When kids are done with excavation and recording, they should present their findings to the family or class by building a museum exhibit and writing news paper articles, stories, or field journals which document their dig. [DO pages The Dig Journal](#), [Archaeologists at Work](#), [Curator's Notes](#), and [One Upon a Time...](#) are designed to provide structure to these writing assignments.



Pictured are sample boxes of artifacts from different time periods. The objects can be buried in sand to be dug up by kids for a more realistic experience.