



# K-6 Science Kit Program Catalog 2013-2014

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The K-6 Science Kit program is designed to provide instruction in the three strands of Science (Life, Earth, and Physical) and in the Science Inquiry Process. Kits have been developed to help students meet District Science Competencies and Nevada Science Standards.

**Teachers are expected to teach all kits in this catalog for their grade level.**

**Each kit contains enough for 30 students.**

**\*\*Kits may be delivered early.  
This does not affect your pre-scheduled dates for use.**



## **Kindergarten**

### **“IN AND OUT OF THIS WORLD” (Earth/Physical Science/Science Inquiry) – Full Semester**

Come on a voyage as we explore the earth, it's oceans, the sun and the moon. This adventure includes 17 lessons with many hands on experiments and social studies extensions. Earth science, sorting, mapping and weather are just some of the content areas addressed in this kit. Lesson titles include “Our World”, “Landforms”, “Mapping”, “Our Five Senses” and “Sorting”, “The Ocean”, “Measuring”, “The Sun”, “Sunlight and Shadows”, “Weather”, “Seasons”, “The Scientific Method and Inquiry” and the “Phases of the Moon”. These lessons are supported through various read alouds , shared readings, posters, art projects, songs and foldables. Students will perform sorts and hands-on experiments as they explore earth and outer space.

### **“SEEDS” (Life Science) – Full Semester**

Check out this kit, in which there are 9 lessons, broken into 16 days of learning about plants and seeds. Lesson titles include “Living and Non-living Things”, “Where do Seeds Come From?”, “Seeds on the Move”, “Seeds and Rocks”, “Inside a Seed”, “Life Cycles”, “Parts of a Plant”, “What do Plants Need to Grow?” and “The Scientific Method”. They are supported by various read-aloud books, posters, songs and foldables. Students will perform sorts and hands-on lab exercises as they explore the world of seeds and plants.

## **First Grade**

### **“AIR” (Earth Science) – 6 Weeks**

This eleven lesson kit teaches that air is everywhere! It introduces the students to the unusual properties of air. Students collect air, go on an air hunt, discover air pollution, make whirlybirds and play air games. This kit includes several integrated literature lessons that lend themselves to writing connections.

### **“DINOSAURS” (Life Science) – 6 to 8 Weeks**

This ten lesson journey into the past begins with three lessons introducing the prehistoric world. The next five lessons teach students about five dinosaur species. The next unit gives students an opportunity to make and dig fossils. The final unit provides several culminating activity options that include drama, poetry and dioramas. Sing, dig and learn about terrible lizards in the recently revised Dinosaur Kit.

### **“FIRST GRADE SOUND” (Physical Science) – 2 to 3 Weeks**

This mini-kit includes literature based hands-on experiments to show students that sounds are produced by vibrating objects.

## **Second Grade**

### **“BUTTERFLIES” (Life Science) – 6 Weeks**

Discover the metamorphosis of Butterflies in your classroom setting. Each student will receive a live caterpillar and be able to observe its environment, feeding habits, growth and eventual flight to freedom in a fourteen-lesson kit. [This is an early fall or late spring kit.](#)

### **“INVESTIGATING LIQUIDS” (Earth Science) – 6 Weeks**

Explore the varied properties of water and develop your detective skills during this eleven lesson kit. Mystery vials of liquids enhance student observations, comparisons, discussions and predictions.

### **“MAGNETS” (Physical Science) – 6 to 8 Weeks**

Investigate the fascination of magnets. This fourteen-lesson kit gives students the opportunity to learn about magnetic force while experimenting with several different types of magnets.

## *Third Grade*

### **“INTRO TO ASTRONOMY” (Earth/Physical Science) – 6 to 8 Weeks**

Your students will learn basic principles of astronomy through several hands-on activities. This twelve-lesson kit leads the students through constellation Identification, planetary scale and the definition of time.

### **“PLANT DEVELOPMENT” (Life Science) – 8 Weeks**

During this seventeen-lesson kit, students observe the complete life cycles of the *Brassica* – a member of the mustard family that goes from seed to mature plant, and then back to a seed in about 40 days. This kit requires some careful planning time to ensure proper plant development and availability of Light Box.

### **“WEATHER” (Physical/Earth Science) – 6 Weeks**

Weather has a profound affect on almost everything we do. Studies show that even our emotions are influenced by the weather. Your class will complete twelve lessons that follow daily weather changes by conducting various weather-related experiments. This unit works best in the late fall, winter or early spring.

## **Fourth Grade**

### **“FORCES, MOTION & ENERGY ONE” (Physical Science) – 12 to 14 Weeks**

In this physical science kit, students are introduced to the basic concepts of forces, motion and energy – how they are related to each other and how they affect humans’ daily lives. Using informational text and hands-on labs, students will explore how light is a form of energy that allows us to see and how it can be converted into other types of energy which can affect a force, how the forces of motion affect objects of mass, how magnetic and electrical forces attract and repel, and the force of gravity.

### **“PROJECT WILLOW”: Understanding Native American Culture Through Environmental Education (Life Science) – 10 Weeks**

This twelve lesson cross-cultural environmental education curriculum was developed in partnership with Washoe Tribe, Carson City School District and the Alpine County School District of California. Basic environmental concepts such as competition, food webs, food chains, carrying capacity and home range are explored from a Native American perspective. This kit has a heavy social science emphasis. (Note: Teachers may utilize the Discovery Works 5 “Population and Ecosystems” unit for reading text for students.)

### **“ROCKS, MINERALS AND THE EARTH” (Earth Science/Science Process) – 10 Weeks**

This fourteen-lesson kit enables students to be introduced to layers of the earth, weathering/erosion, rock formation, rock types, the rock cycle, minerals, and their uses by man. Based on their own analysis, students use keys to identify rock and mineral samples contained in the kit. Several read aloud books are included for integration with literature. (Note: Teachers may utilize the Discovery Works 5 “The Solid Earth” unit for reading text for students.)

## **Fifth Grade**

### **“FIFTH GRADE SOUND” (Physical Science) – 6 Weeks**

In this kit, students will discover what sound is, how it travels and some properties of waves including pitch, loudness and speed. Students observe wave patterns, make instruments and learn how the ear works in receiving sound.

### **“HEALTHY HUMAN BODY” (Life Science/Health and Safety) - 10 Weeks**

This kit incorporates healthy life habits and behaviors as outlined in the Nevada State Health and Safety Content Standards with lessons about the human body as outlined in the Nevada State Science Content Standards. Students will learn about the human body as a complex machine that houses many individual parts that must work together. The human brain, skin, skeleton, muscles, circulatory, respiratory and digestive systems are studied. The kit incorporates many literacy links. The 5<sup>th</sup> grade Discovery Works science text is utilized where appropriate and additional reading materials are provided where needed. The unit does not discuss human reproduction, which is part of the district’s Family Life/Sex Education/AIDS awareness program.

### **“MATTER & ENERGY” (Physical Science) – 8 to 10 Weeks**

This kit is designed to closely follow Unit C in the Discovery Works 5. This kit incorporates a standards-based unit design with pre/post assessments, content-reading strategies as well as lab activities that address properties of matter and forms of energy. Students will observe models of different atoms, molecules and changes of matter. They will make their own models showing how energy can be stored and released and how energy can be changed from one form to another. There is a trade book included as well as other literature integration.

## **Sixth Grade**

### **“DYNAMIC EARTH” (Earth Science) – Full Semester**

This kit examines how Earth’s oceans, atmosphere, and crust combine to create the complex system that allows us to live on this planet. The relationships between weather & climate, water cycling, and geologic processes will be studied with many hands-on activities. The Earth’s position in space related to seasons and eclipses are also studied.

### **“FORCES, MOTION & ENERGY 2” (Physical Science) – 12 Weeks**

In this kit students explore the Laws of Motion and learn about energy, force and motion. Using informational text and hands-on labs, students study the effects of balanced and unbalanced forces on an object’s motion. Students will learn how every object exerts gravitational force on every other object and the magnitude of this force depends upon the mass of the objects and their distance apart. Students will also learn that energy can neither be created nor destroyed but changed in chemical or physical reactions. You will be able to demonstrate that transferred electrical energy can produce heat, light, sound and chemical changes.

### **“MAGNETISM & ELECTRICITY” (Physical Science) – 10 to 12 Weeks**

This kit is designed to correspond with Unit D in the Discovery Works 4. Included are 30 student copies of the text together with a teacher edition. This kit incorporates a standards-based unit design with pre/post assessments, content-reading strategies as well as many lab-based activities for magnetism and electricity. Learning about some of the simple relations between magnets and electric current, students will broaden their understanding of these fundamental forces of nature. There is a trade book included as well as other literature integration.