MENTONE EDUCATIONAL PRODUCT CATALOGUE | SUMMER EDITION

# 

# ZOOLOGY

Botany Biology Chemistry Physics Renewable Energy Geology Astronomy

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# **Science Models and Activities**



#### **Skin Parasite**

GPV9095

Skin Parasite

A parasite is an organism that grows, feeds, and is sheltered on or in another type of organism while contributing nothing to the survival of its host. It is fairly common for our pets to become the unknowing hosts to a number of parasites. This model here shows in great detail the 3 most common external parasites a mite, flea, and tick.



7.6cm x 5cm x 5cm



\$172.00

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FELINE HEART / LUNG



#### line Heart / Lung

ge feline heart and lungs infested with a single heartworm aria immitis). Cut-away view demonstrates structures in the heart ventricle, pulmonary trunk, pulmonary arteries) and lungs where tage heartworms are normally found. The cut section of the lung tes patches of heartworm- induced irritation.

	Description	Dimension	Price
41	Feline Heart / Lung	7.6cm x 5cm x 5cm	\$141.00

#### anine Heart / Lung

ge canine heart and lungs infested with heartworms (dirofilaria ). Cut-away view demonstrates structures in the heart (right e, pulmonary trunk, pulmonary arteries,

gs) where adult-stage heartworms are normally found.

	Description	Dimension	Price
1	Canine Heart / Lung	7.6cm x 5cm x 5cm	\$131.00

Reverse side of model shows normal skin

#### Skin

ross-section of canine side features normal my extending from the down to the layer of ous fat. The reverse nstrates the progressing f a flea bite from wheal pustule.



Description Canine Skin 12.7cm x 10cm x 7.6cm

Science | Zoology

\$149.00



#### 1. Clear Feline Jaw Code: GPV9191 Dimension: 10cm x 7.6cm x 5cm

Price: \$165.00

2. Clear Canine Jaw Code: GPV 9196 Dimension: 10cm x 7.6cm x 5cm Price: \$165.00

Healthy canine and feline hinged jaw showing the roots of all teeth (incisors, canine, premolars, molars). Jaws open, close and separate for closer study.

# 3. Feline Jaw

Code: GPV9190 Dimension: 10cm x 7.6cm x 5cm Price: \$165.00

# 4. Canine Jaw

Code: GPV9195 Dimension: 10cm x 7.6cm x 5cm Price: \$165.00

Average size canine and feline jaw depicts healthy teeth on the right side and diseased and damaged teeth on the left. Featured pathologies: fractured canine, periodontal disease, tartar accumulation, plaque, gingivitis, worn incisors, retained deciduous tooth, missing premolar and (canine) gingival recession. Jaws open, close and separate for closer study.

# Canine Ear -**Normal / Infected**

This two-sided, average size, canine ear depicts: a normal side with cochlea, auditory ossicles, auditory tube, tympanic bulla, middle ear cavity, tympanic membrane, horizontal canal, vertical canal, auricular cartilage, pinna and temporalis muscle; abnormal side illustrates inflamed inner ear structures, inflammatory exudate in tympanic bulla, ear canal with partial occlusion from cellular hyperplasia, inflammatory exudate and an inflamed outer ear. Model size: 10cm x 5cm x 5cm

GPV9200 Canine Ear – Normal / Infected

Price: \$139.00



Model does not include a base Base options are available upon request

Dimension 10cm x 5cm x 5cm



#### Canine 4-Stage Knee

Set of four life-size models illustrate degenerative joint disease (osteoarthritis). Disease-free (normal) knee includes additional important structures including ligaments, tendons and patella. The other three models demonstrate progressive articular surface degeneration and the development of osteophytes (bone spurs).

Code Description GPV9051 Canine 4-Stage Knee Dimension: Price 5cm x 10cm x 17.7cm **\$199.00** 



Dog Skeleton, Life Size

Quality life-size cast of a medium canine skeleton features a removable skull, legs and tail, and a movable jaw.

Code	Description	Dimensions	Price
EZVET1700	Dog Skeleton, life size	90 x 16 x 65 cm	\$775.00



**Canine Knee** 

Average size knee with femur, fibula, patella and tibia bones, lateral and medial meniscus, anterior and posterior cruciate ligaments, plus six more ligaments and tendons.

Code: GPV9050 Dimension: 5cm x 7.6cm x 18cm Price: **\$159.00** 



## **Canine Pelvis**

Average size pelvis features both normal and osteoarthritic bone, body of ilium, greater trochanter, head in acetabulum, herniated disc, neck of femur, nerve, sacrum, and third trochanter.

Code: GPV9060 Dimension: 17.7cm x 13cm x 28cm Price: **\$199.00** 



**Canine Elbow** Healthy left elbow of average size includes: humerus, radius and ulna bones; plus six ligaments.

Code: GPV9070 Dimension: 23cm x 33cm x 17.7cm Price: **\$149.00** 



# **Feline Pelvis**

Average size feline pelvis features: femur, vertebrae L6, L7, caudal (tail), and spinal cord. Osteophytes (bone spurs) indicate degenerative osteoarthritis of the hip joint.

Code: GPV9160

Dimension: 17.7cm x 10cm x 5cm Price: **\$135.00** 



#### Feline Elbow / Shoulder

Average size feline elbow and shoulder features normal bone and osteoarthritic changes to joints. Model includes the following bones: scapula, humerus, radius, ulna and nine important ligaments and tendons.

Code: GPV9170 Dimension: 18cm x 10cm x 17.7cm Price: **\$139.00** 



#### **Canine Shoulder**

Average size shoulder with scapula, humerus, biceps brachii tendon, coracobrachialis tendon, lateral glenohumeral ligament, medial glenohumeral ligament and transverse humeral ligament.

Code GPV9075 Dimension: 28cm x 7.6cm x 5cm Price: **\$161.00** 



# **Canine Vertebral Column**

Vertebral column of average size features five lumbar vertebrae and discs, caudal (tail) vertebrae and sacrum.

Code: AE9080 Dimension: 20cm x 5cm x 5cm Price: **\$135.00** 



#### **Clam Model Activity Set**

Our unique model shows an exaggerated perspective of a mollusk gill structure, as well as, a cut-away section of the shell, foot, and mantle to reveal internal organs. Two separate inset diagrams show the circulatory and nervous system. Activity set includes a 61cm x 46cm raised relief model, detailed activity notebook with glossary, key, blackline master, and a colour transparency. **Grades 5+, Ages 10+**.

Code: AE2755 CLAM Dimension: 61cm x 46cm Price: **\$165.00** 

#### **Crayfish Model Activity Set**

A commonly dissected invertebrate, the crayfish is shown in 3-D so learners can study the organs and structure of an animal with an exoskeleton. Colourful model illustrates the special adaptations the crayfish has for life under water with an inset of the gill structure. Set includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and colour transparency.

#### Grades 5+, Ages 10+.

SCIENCE

Code Description Dimensions Price AE2752 Crayfish Model Activity Set 61cm x 46cm **\$165.00** 





# 1. Master Set Of Zoology Models

This model illustrates a dissected portion of the abdominal and thoracic organs. The male reproductive system is shown ventrally, and a dorsal view allows examination of the female reproductive organs, as well as, the brain, muscles, and nervous system. Inset diagram outlines the circulatory system. Set includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and two colour transparencies. **Grades 5+** 

Code	Description	Dimensions	Price
AE2758	Master Set Of Zoology Models	61cm x 46cm	\$999.00

# 2. Grasshopper Model Activity Set

The Grasshopper Model is one of a series of  $\overline{7}$  models that makes up a coordinated program in Biology/Life Science. The model demonstrates a generalized, short-horned grasshopper where part of the exoskeleton on one side of the animal has been cut away to disclose the internal organs. The wings are positioned so both may be seen. A supplementary diagram shows the mouth parts as they are seen in normal position, and then displayed in an "exploded" view. The model represents a member of the largest Phylum in the animal kingdom, the Arthropoda. Detailed study of certain body structures, as well as, the joined feet and legs will reveal the common characteristics that grasshoppers share with all other members of the huge class Insecta. The model measures 61cm x 46cm and is accompanied by a comprehensive activity notebook with a glossary, key, blackline master, and 2 colour transparencies.

 Code
 Description
 Dimensions
 Price

 AE2753
 Grasshopper Model Activity Set
 61cm x 46cm
 \$165.00

Science | Zoology



# Perch Model Activity Set

Learners view the special adaptations aquatic vertebrate have for exchanging oxygen and carbon dioxide. Organ systems are graphically illustrated in 3-D, plus the two inset diagrams show gas exchange in the gills and the complete skeletal system. Includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and a colour transparency. **Grades 5+, Ages 10+.** 

Code: AE2754 PERCH Dimension: 61cm x 46cm Price: **\$165.00** 



# Earthworm Model Activity Set

Classical relief of the anterior portion of the earthworm shows the internal organs and systems representative of primitive invertebrates. Model clearly illustrates the body in cross section and enhances or replaces the use of animal specimens in the classroom. Set includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and a colour transparency. **Grades 5+, Ages 10+.** 

Code: AE2756 EARTHWORM Dimension: 61cm x 46cm Price: **\$165.00** 

#### Fetal Pig Model Activity Set

This model illustrates a dissected portion of the abdominal and thoracic organs. The male reproductive system is shown ventrally, and a dorsal view allows examination of the female reproductive organs, as well as, the brain, muscles, and nervous system. Inset diagram outlines the circulatory system. Set includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and two colour transparencies.



#### Grades 5+, Ages 10+.

Code Description AE2757 Fetal Pig Model Activity Set Dimensions 61cm x 46cm Price \$165.00



# 3. Frog Model Activity Set

The anatomy of frog organs and systems is presented in ventral and dorsal dissected views. Abdominal organs expose a representation of the female reproductive organs from the left and the male is shown from the right. A separate inset details the structure of a frogs three-chambered heart. The set includes 61cm x 46cm model, activity notebook with glossary, key, blackline master, and 2 colour transparencies. **Grades 5+, Ages 10+.** 

Code: AE2750 Dimension: 61cm x 46cm Price: **\$165.00** 

#### 4. Individual Mi-Own Frog Models

MI-OWN Frog Models permit safe, humane, inexpensive, accurate and individual frog dissection. Each frog is life size (8" long). They are washable, reusable, unbreakable and require no magnets, glue or hook and loop fastener. Won't chip or tear. Each frog is accompanied by a reproducible student worksheet set, a Teacher's Guide and a key card. 22 removable parts. **Grades 6+, Age 11+**.



#### **Flower Model Activity Set**

Here is an enlarged view of a typical flower with cut away sections to show the major parts: stem, sepal, petal, stamen, and pistil. Students can trace the transmission of male gamete to female gamete within the ovary. Model measures 60cm x 46cm and includes a comprehensive activity guide with blackline master and colour transparency. **Grades 3+, Ages 8+.** 

#### Code: AE2830 Dimension: 60cm x 46cm Price: **\$165.00**



#### **Invertebrate Beach**

Invertebrate Beach is an activity covering information about the invertebrate phyla. Students travel around the mat landing on spaces where they must answer questions correctly to receive Bio-Bucks. It is set up to follow the invertebrate phyla from the simplest (porifera-sponges) to the more complex (echinodermsstarfish). The information on the space corresponds with the phylum. Includes durable mat, Bio-Bucks, die and markers. It is designed for two or more players. **Grades 6+, Ages 11+.** 

Code: AE8852 Price: \$49.00



## Root-Stem-Le<mark>a</mark>f Model Activity Set

This 3-D model shows all the major structures within a seed-bearing woody plant. It also uniquely promotes the understanding of plant anatomy through the use of cross, transverse and longitudinal sections. Set includes 60cm x 46cm model, activity guide and colour transparency. **Grades 3+, Ages 8+.** 

Code: AE2840 Dimension: 60cm x 46cm Price: **\$165.00** 



## Germination Model Activity Set

3-D Monocot and dicot plant germination is shown on this markable 60cm x 46cm model. The included activities support the teaching of seed development. Includes a Teacher's Guide with an overhead transparency blackline master, student activities, key and glossary. **Grades 5+, Ages 10+.** 

Code: AE2850 Dimension: 60cm x 46cm Price: **\$165.00** 



# Insects Clever Catch®

Invertebrate Beach is an activity covering 39 questions provide a great way for young students to learn about insects! Our brightly coloured ball contains fun and interesting graphics! A repair patch is included. Circumference is 62cm when inflated. No latex! **Grades K+, Ages 5+.** 

Sample questions:

- How many legs does an insect have?
- Is a grasshopper an insect?
- Name a poisonous insect.

Code: AESR-1449 Dimension:62cm Price: \$30.00

# Life Cycles Magnetic Wall Sticker

Learn about the life cycle of, not one but, five amazing species with this unique Magnetic Wall Sticker! Made with patented light-weight material that mounts with ease and removes cleanly from most surfaces. Includes Wall Sticker, 40 magnetic pieces, and mounting instructions. **Grades PreK+**, **Ages 3+**.

Code	Description	Price
AEMAG-102	Life Cycles Magnetic Wall Sticker	\$25.00

# **Frog Magnetic Wall Sticker**

Learn about the life cycle of a frog with this unique Magnetic Wall Sticker. Includes five bonus adult frog magnets! Includes Wall Sticker, 21 magnetic pieces, and mounting instructions. **Grades PreK+, Ages 4+.** 

Code	Description	Price
AEMAG-121	Life Cycles Magnetic Wall Sticker	\$25.00





# Human Anatomy Clever Catch®

Veins, arteries, eyeballs, and brains! These are just a few of the full colour graphics which bring anatomy to life on the Human Anatomy Clever Catch® Ball! Students can't wait to learn more about the human body Clever Catch® Ball. 100 questions. Circumference is 1219mm when inflated. No latex. **Grades 4+, Ages 9+.** 

Code: AESR-1433 Dimension: 62cm Price: **\$30.00** 



#### **Digesto-Rama**®

Hands-on activities make learning about the digestive system fun! Contains two plastic replicas of the digestive tract plus an activity guide written especially for kids. Younger students learn basic anatomical information, while older students expand on the activities. **Grades 3+, Ages 8+.** 

Code: AE1101 Price: \$29.00



#### Digest-O-Rama® -The Game

Digest-O-Rama is a fun, fast-paced game that takes students on an educational journey through the Digestive System of the human body. Be the player to collect the most Digest-O-Bucks as you travel from the esophagus to the rectum answering questions about the Digestive System. 40 question cards, 40 scenario cards, Digest-O-Bucks, markers, and instructions for play are included. 2+ players. **Grades 6+, Ages 11+.** 

Code: AE8854 Price: **\$42.00** 



#### Human Heart Walk-Thru

Book illustrations and hand-out diagrams for the human heart are boring. Get your students up out of their seats and literally walk the path of blood through the heart! The Human Heart Walk-Thru mat measures 127cm x 152cm and comes with a convenient vinyl storage bag. This is a perfect review and quiz product for your students. A Teacher's Guide provides additional information, activities and assessment sheets for the classroom. Made of soft PVC vinyl. **Grades 6+, Ages 11+.** 

Code: AE2003 Dimension: 127cm x 152cm Price: **\$59.00** 

#### **Digestive System Walk-Thru**

Get your students up out of their seats and literally walk the path of the human digestive system! Book illustrations and hand-out diagrams for the digestive system are boring. The Digestive Walk- Thru mat measures 1778mm x 1778mm and comes with a convenient storage bag. This is a perfect review and quiz product for your students. A teacher's guide provides additional information, activities, and assessment sheets for the classroom. Made of soft PVC vinyl. **Grades 6+, Ages 11+.** 

 Code
 Description
 Dimensions
 Price

 AE2004
 Digestive System Walk-Thru
 178cm x 178cm
 \$89.00





#### **Bio2 Inflatable Torso Model**

BiO2 Inflatable Torso Model is a fundamental teaching aid designed to introduce human anatomy at an early age. The Inflatable Torso Model promotes interactive play with its durable but soft inflatable parts. There are 5 inflatable organs included: the brain, left lung, right lung, heart, and digestive system. Also included are fascinating facts for additional educational value. The BiO2 Inflatable Torso Model comes complete with a detailed teacher's guide and related worksheets. Includes repair patch. No latex. Grades K+, Ages 5+.

Bio2 Inflatable Torso Model AE2002





#### Exploring The Human Body

Breathe new life into Life Science! Our Exploring The Human Body kit brings together the popular 3-D Human Torso model with the Microslide® Lesson set series in a highly effective multimedia teaching tool. The teacher's guide includes: comprehensive lesson plans, easy hands-on experiments, reproducible student worksheets, assessment notes, extension activities, background information, references and detailed tables and illustrations. 31 complete lessons promote active learning, and cover the Digestive, Respiratory, Circulatory, Nervous, Urinary and Musculoskeletal Systems. Kit includes: Human Torso Model, complete teacher's guide, Microslide® Viewer and 12 Microslide® Lesson Sets: T-112 Your Life and Breath, T-113 Your Circulatory System, T-114 Your Nervous System, T-116 Your Digestive System, T-118 Your Senses, T-121 Your Body, T-123 Your Glands, T-125 Your Teeth and Gums, T-128 Your Skeleton, T-138 Your Brain, T-73 Smoking and Health, T-95 Human Blood. Grades 4+, Ages 9+.

Code Description AE157 Exploring The Human Body \$650.00

#### **Basic Torso Discovery Pack**

Constructed of durable laminated vinyl this colourful 3-D Torso model is ideal for class demonstration or for self-directed study of anatomy. The large model is keyed to an instructional CD and a workbook to help students identify internal organ structure and function. The transparent plastic cover is markable for instruction purposes and represents the outer skin. Appropriate for health and science classes. The Discovery Pack includes: Torso model, Instructional audio CD, reproducible student workbook and Teacher's Guide.

Grades 3+, Ages 8+.

AE2006 Basic Torso Discovery Pack \$125.00

#### **Torso System Model**

This Torso System Model features functioning systems intended to help students learn about body processes. In conjunction with the 76 page Teacher's Guide, this highly interactive model allows students to conduct activities on the functions of each system. Nervous System: Registers sensory responses. Digestive System: Effectively illustrates the passage of food through the body. Circulatory System: Latex heart can be pumped, forcing fluid through transparent tubes representing blood vessels. Urinary System: Functioning of kidneys, bladder, and urethra are demonstrated. Respiratory System: Demonstrates inhalation and exhalation. Grades 3+, Ages 8+.

Description AE8681 Torso System Model \$844.00



Human Torso Model

Constructed of high-impact plastic, this 71cm model is perfect for every classroom use. The exterior depicts superficial muscular and skeletal features of a young boy. The torso opens to expose respiratory, circulatory, digestive, urinary, and nervous systems. Internal organs are removable for closer study. Includes: 54-page Teacher's Guide with extensive back-ground information, numerous activities, observation, and data sheets. Model is also available with four anatomy models, each with an accompanying activity notebook (See below). Also available in Spanish and French. Grades 3+, Ages 8+.

AE2611 Human Torso Model

Dimensions 71cm

\$1055.00



# 1. Ear Model Activity Set

A unique three-dimensional model of the complete human ear incorporates a removable eardrum, semicircular canals, and cochlea. These magnified structures facilitate hands-on learning as they are correlated to a full-colour overhead transparency with overlay. Each model in the series contains the supplemental materials listed in the description of the Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

Ear Model Activity Set \$270.25 AE2650

## 2. Eye Model Activity Set

This three-piece anatomical model clearly illustrates details of the eye in three removable pieces: the body of the eye, the lens and a multi-colored transparent cover which depicts the venation, sclera, and cornea. A separate diagram panel also shows components of the retina. Each model in the series contains the supplemental materials listed in the description of the Model Activity Sets at the top of the page.

AE2640 Eye Model Activity Set \$270.25



## **Digestive System Model** Activity Set

The digestive system is shown with details of the mouth, salivary glands, esophagus, stomach, liver, pancreas, and intestines. Learning is enhanced by the cutaway sections and enlargements of the stomach and intestines which further illustrate the system. Each model in the series contains the supplemental materials listed in the description of the general Human body System Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

Description

AE2673 Digestive System Model Activity Set \$165.00



SCIENCE

#### **Respiratory System Model Activity Set**

Facilitate learning about breathing and the anatomical complexities of the human respiratory system through three detailed model reliefs: the cutaway upper human torso and head, an enlarged image of a bronchial tree, and a greatly magnified alveoli partially sectioned. Each model in the series contains the supplemental materials listed in the description of the general Human body System Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

Description AE2672 Respiratory System Model Activity Set \$165.00



#### **Endocrine System Model Activity Set**

This activity set helps learners understand the structure and function of the endocrine system. Seven endocrine glands are depicted in whole and magnified sectional detail, as are the closely related organs. Included on the model are the pituitary, thyroid, parathyroid, adrenal glands, pancreas, ovaries, and testes. Set includes 24"H X 18"W model, activity guide, and a colour transparency.

\$165.00

Grades 3+, Ages 8+.



# 3. Teeth Model Activity Set

The composition of teeth is easily illustrated with this three-dimensional model. A side view of upper and lower teeth makes this a "three models in one" teaching tool. The model together with the activity guide and transparency incorporates a series of activities. Each model in the series contains the supplemental materials listed in the description of the Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

AE2630

AE2676 Teeth Model Activity Set \$165.00

# 4. Skin Model Activity Set

Students will understand the importance of skin with this Model Activity Set. A crosssectional enlargement of the human skin illustrates the skin layers, hair follicles, sweat glands, nerve endings, blood vessels, and more. Each model in the series contains the supplemental materials listed in the description of the Model Activity Sets at the top of the page. Grades 3+, Áges 8+.

Description

Skin Model Activity Set \$165.00

# **Circulatory System Model Activity Set**



Add a tactile dimension to anatomical studies with this threedimensional model. A cutaway view of the interior of the heart can be felt and studied without the complications of dissection. Process is reinforced with a colourful three-overlay transparency of the heart. Trace vessels throughout the body while viewing an enlarged cutaway section

of a vein and an artery. Activity set includes a 45cm x 69cm model and a customized activity guide with background information, glossary, key, colour transparency, and a blackline master. Grades 3+, Ages 8+.

AE2671 Circulatory System Model Activity Set

45cm x 69cm **\$165.00** 



#### **Nervous System Model Activity Set**

The structure of the central and peripheral nervous systems are illustrated with the Nervous System Model Activity Set. A close examination of the human brain with a removable transparent overlay defining the brain lobes is included.

Diagrams illustrate the location of the brain, spinal cord, spinal nerves, dendrites, axons, and synapses. Each model in the series contains the supplemental materials listed in the description of the general Human body System Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

Description

AE2674 Nervous System Model Activity Set \$165.00



# **Urinary System Model Activity Set**

Colourful 3-D views of the kidneys are shown in detail, illustrating a magnified nephron. The dissected kidney is enlarged to illustrate the cortex, pyramid, calyx, and papilla. Each model in the series contains the supplemental materials listed in the

description of the general Human body System Model Activity Sets at the top of the page. Grades 3+, Ages 8+.

Code	Description	Price
AE2675	Urinary System Model Activity Set	\$165.00

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# 1. Mitosis Model Activity Set

Illustrate somatic cell division with this informative model. Enlarged views detail the five phases of mitosis. Includes cytoplasm nucleus, nucleolus, chromatic threads, centrioles, aster, spindle, chromosomes, and centromere. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. 609mm x 457mm markable model. Grades 6+, Ages 11+.

Dimensions Price Description AE2667 Mitosis Model Activity Set 60cm x 45cm \$165.00

# 2. Meiosis Model Activity Set

Help explain individual human characteristics and genetic differences. Visualization and understanding of meiotic cell division are promoted through enlarged views of chromosomes, cytoplasm, and chromatic and polar bodies. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. 609mm x 457mm markable model. Grades 5+, Ages 10+.

Dimensions Price AE2668 Mitosis Model Activity Set 45cm x 60cm \$165.00



# 6. Menstrual Cycle Model Activity Set

The model illustrates the menstrual cycle, depicting the four states of the average 28 day cycle. Two magnified ovaries show ovum development. Accompanying activity guide facilitates learning about this basic human body function with comprehensive information and discussion materials. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. Grades 5+, Ages 10+.

Code Description Price AE2667 Menstrual Cycle Model \$165.00 Activity Set

# 7. Cell To Embryo Model Activity Set

Understanding development of the egg from fertilization to a 35 day old embryo is graphically aided by 3-D illustrations of the ovum, ovulation, fertilization, initial cell division, and implantation. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. Grades 6+, Ages 11+.

Description Cell To Embryo Model Activity Set \$165.00 AE2666



# **Birth Model Activity Set**

Description AE2663 Full-Term Fetus Model Activity Set \$165.00 The Birth Model is part of the Sex Education/Family Living models that make up a coordinated program in life science. This model reflects dimensions and spatial relationships that are anatomically accurate. The scale of the Birth Model is life-sized.

The model shows the delivery of a full term fetus with the hands of the doctor assisting in the birthing process. A detailed illustration shows a normal fetal birth position displaying the placenta, umbilical cord, cervix, and vagina. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. Grades 6+, Ages 11+.

Code	Description	Price
AE2664	Birth Model Activity Set	\$165.00



# 3. Female Reproductive System Model Activity Set

Detailed 3-D model of the lower female torso shows reproductive organs and a crosssectioned ovum. Valuable graphic aid for discussing health issues and pregnancy. Aids in the discussion of women's health issues and pregnancy. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. Grades 5+, Ages 10+.

Description AE2661 Female Reproductive System Model Activity Set \$165.00

# 4. Four-Month Fetus Model Activity Set

The Four-Month Fetus Model is one of a series of models that comprise the Sex Education/ Family Living coordinated program. This model features life-sized, detailed, and accurate representation of the anatomical features of the fetus and its mother. The sequence on the model illustrates the successive development of the fetus from the sixth week after conception to the 16th week. The model illustrates the size, physical features, and physical positioning of the embryo/fetus. It is a great graphic instructional aid on reproduction topics. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page.

Grades 6+, Ages 11+

Description AE2662 Four-Month Fetus Model Activity Set \$165.00

# 5. Male Reproductive System Model Activity Set

The model encourages students to discuss topics such as prostate cancer, vasectomies, and sterility. It depicts all male reproductive organs, plus a magnified sectioned sperm. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page. Grades 5+, Ages 10+.

\$165.00 AE2660 Four-Month Fetus Model Activity Set



Master Set Of Human **Reproductive System Models** Includes all nine Human Reproductive System Model Activity Sets: Menstrual Cycle, Male Reproductive System, Female Reproductive System, Meiosis, Mitosis, Cell to Embryo, Four-Month Fetus, Full-term

Fetus, and Birth Model. Grades 5-12, Ages 10-18.

AE2614

# Master Set Of Human Reproductive System Models \$1099.00 Full-Term Fetus Model Activity Set

The Full-Term Fetus Model is one in a series of human anatomy models that make up a coordinated program in Sex Education/Family Living. Dimensions and spatial relationships are anatomically accurate. The model shows a full-term fetus positioned within the maternal body. A removable transparent plastic shell illustrates the amnion ("bag of water") in which the fetus rests. The model also contains a detailed enlargement of the placenta in semi-diagrammatic form. The enclosed key provides proper nomenclature to each of the parts of the model. In addition to the model, black line drawings are provided for visual reinforcement. Each model in the series contains the important supplemental materials listed in the description of the Human Reproductive System Model Activity Sets at the top of the page 21. Grades 6+, Ages 11+.





#### **Teaching About Immunity Made Easy Kit**

The interrelated workings of the immune system are explore in our Immunity kit. Your students participate in these "hands on" activities to explore the operation of AIDS, Cancer, Vaccines, Allergies, Autoimmune reactions and more and how our bodies react to them. The large Plastick<sup>™</sup> pieces will never break, chip, tear, peel, or wear out! **Grades 6+, Ages 11+.** 

Code Description Price AET-600 Teaching About Immunity Made Easy Kit \$385.00

#### Immunity Made Easy Teacher's Guide

This teacher's guide is a component of the Immunity Made Easy Kit which may be purchased separately. The 116 pages include 11 lessons and 3 optional lessons for more simplified approach. Topics include AIDS, Cancer, Autoimmunity, Allergies and Vaccines, How Antibodies work and Non-specific and specific Immunity. **Grades 6+, Ages 11+.** 

Code Description Price AET-600TG Immunity Made Easy Teacher's Guide **\$19.00** 

## Plant And Animal Cell Model Activity Sets

Students can explore plant and animal cell structures with these 20cm diameter cell models. Teacher's notebook includes background information, basic understandings, blackline master, two full-colour overhead transparencies, key structure, and a glossary. **Grades 5+, Ages 10+.** 

Code: AE2055 ANIMAL CELL MODEL ONLY Code: AE2056 PLANT CELL MODEL ONLY Code: AE2057 PLANT & ANIMAL CELL ACTIVITY SET

Price: **\$85.50** Price: **\$85.50** Price: **\$165.50** 











#### 4. Bio<sup>2</sup> Inflatable Plant Cell

2055

This 30cm x 20cm x 41cm inflatable translucent Plant Cell Model provides a realistic representation of its parts: Includes the nuclear membrane, cell wall, chromosomes, endoplasmic reticulum, chloroplast, large central vacuole, mitochondria, and ribosomes. The back side of the model is printed with questions that are great for reviewing cell parts and building vocabulary. Includes a repair patch. No Latex! **Grades 6+, Ages 11+.** 

CodeDescriptionDimensionsPriceAE2058Bio² Inflatable Plant Cell30cm x 20cm x 41cm\$16.50

# 5. Bio<sup>2</sup> Inflatable Animal Cell

This colourful inflatable 61cm teaching model is perfect for introducing students to the components of an animal cell. The translucent side allows visual identification of the major organelles, including the nucleus, endoplasmic reticulum, mitochondria, ribosomes, Golgi apparatus, and centrioles. For additional review and vocabulary building, the reverse side has questions referencing the parts of the cell. Ideal for use with the Plant Cell Model to compare animal and plant cell structures. Includes a repair patch. No latex. Grades 6+, Ages 11+. 2059 BIO2 INFLATABLE ANIMAL CELL and building vocabulary. Includes a repair patch. No Latex! **Grades 6+, Ages 11+.** 

Code	Description	Dimensions	Price
AE2059	Bio <sup>2</sup> Inflatable Animal Cell	61cm	\$16.50

## 6. Hiv Model Activity Set

The Human Immunodeficiency Virus (HIV) Model depicts the anatomy of the basic viral unit and the related infection cycle. The Model Activity Set includes a large, markable model a set of plastic colour-coded pieces to construct a segment of DNA, and a Model Activity Guide in a three ring binder. The Activity Guide includes background information, basic understandings, classroom activities, five full-colour overhead transparencies, a key to model structures, and a glossary. **Grades 6+, Ages 11+.** 

Code Description Price AE2692 Hiv Model Activity Set \$265.50





## **Fruitfly Genetics Kit**

This unique kit contains simple activities designed to teach basic fruit fly genetics without using live flies. Drosophila Melanogaster is used without the inconvenience of maintaining live fruit fly cultures. Students can perform crosses using plastic pieces printed with features allowing them to observe and simulate sex determination, single factor inheritance, double factor inheritance, sex linkage, dominance and recessiveness. Includes: 15 sheets each, showing male and female and 4 types of fruit flies. Teacher's Guide and student instruction sheet master included. Grades 7+, Ages 12+.

Code	Description	Price
AER-100872	Frufly Genetics Kit	\$59.00

#### **DNA Model Kitcs Kit**

Build a segment of the DNA consisting of Adenine, Thymine, Cytosine, and Guanine. Colour-coded pieces designate certain molecules making up the four nucleotides present in DNA. Kit includes: 12 packets of model parts, each with enough material to construct a segment of 6-paired bases, instructions and reproducible student worksheets. Grades 7+, Ages 12+.

R-DNA DNA MODEL KIT, 12 PACKET R-DNA1 DNA MODEL REFILL, SINGLE PACKET

**AER-DNA** DNA MODEL KIT, 12 PACKET AER-DNA1 DNA MODEL REFILL, SINGLE PACKET

\$110.00 \$13.50

# **Probability Of Genetics Kit**

Observe Mendelian laws of genetics by simulating genetic crosses using factors for single gene inheritance. Activities are given for a simulated monohybrid cross using coloured chips for flower colour. In simulating dihybrid crosses, students can investigate how flower colour and seed colour is inherited. Most genetic principles can be expressed mathematically, a unique feature among the biological disciplines. The understanding of mathematics of elementary genetics is greatly pushed by doing simulated genetic crosses. Grades 7+, Ages 12+.

Code	Description	Price
AER-PROB	Probability Of Genetics Kit	\$99.00







# Teaching Dna Made Easy Kit

Reveal a double strand of DNA and duplicate the gene. Synthesize normal blood then mutate it to produce sickle-cell blood. These are only 2 of 7 great classroom demonstrations. Grades 7+, Ages 12+.

AET-602 Teaching Dna Made Easy Kit \$349.00

# 1. Antigen Alley

Immunity is a word we hear every day! Now there is an activity which will familiarize students with the various diseases and illnesses caused by germs and with the concept of antibodies fighting those germs. Students will learn to differentiate between diseases caused by bacteria and those caused by viruses. Includes a durable mat, 35 Germ Cards, 35 Antigen Cards, die and markers and may be used by two or more players. Grades 6+, Ages 11+.

AE8851 Antigen Alley \$49.00

#### 2. Brain Race

Brain Race introduces students to functions of the spinal cord and brain. Students travel around a mat in the shape of the spinal cord and brain, picking up and losing Bio-Bucks. Brain Race is a great introduction to a unit on the nervous system. It also can be used to introduce various functions of the specific lobes of the cerebrum, cerebellum, and brain stem or to stimulate discussion on what each area of the brain does. Also provides a good review of related vocabulary words. Includes a durable mat, Bio-Bucks, die and markers. Two + students. Grades 6+, Ages 11+.

Code \$49.00 AE8850 **Brain Race** 



# **Elementals Chemistry Card** Game

With two variations of game play, eleMENTALS is action-packed and teaches participants about the basic properties of the chemical elements. Players must judiciously play their cards according to the period, group, element type, and atomic number of the element cards in their hand. Chemical reactions can erupt suddenly, foiling the most strategic plans, and players can find themselves buried in elements in a very short order! The first person to discard all of their element cards wins, and avoids becoming....ele MENTAL! Grades 6+, Ages 11.

Code:AE480 Price: \$22.00



#### **Crystal Growing Tree**

Watch these trees grow crystals before your very eyes! Be amazed as colourful crystal buds begin to appear in as little as 15 minutes and are complete within 3 hours. Your little scientist will wonder how this happens and the included instructions with study questions help guide you though the process. Don't end the fun with growing just one, as this kit includes 3 trees with ideas on various experiments to determine how different locations and elements effect the growing process. Truly a fun and beautiful learning experience! Grades K+, Ages 5+.

Code: AECT30-RT

Price: \$9.90



Construct models of all three nutrient groups: carbohydrates, fats and proteins. Viewing this chemistry in 3-D will help students build an understanding of the chemistry of hydrolysis and dehydration synthesis. Model kit includes: 12 individual sets each of carbon atoms, oxygen atoms, hydrogen atoms, nitrogen atoms and covalent bonds. 121 pieces per pack.

# **Chemistry Of Nutrients** Model Kit

Grades 7+, Ages 12+.

Code: AER-MOD5

Price: \$150.00

Code: AE605

Made Easy Kit

**Teaching Photosynthesis** 

"Zap" chlorophyll with a photon and

cyclic and non-cyclic phosphorylation.

Four enlightening demonstrations in all!

demonstrate light reaction, dark reaction,

Disassociate water and reduce NADP and

NADPH directly on the demonstration board.

Includes reproducible student worksheets and

Teacher's Guide. Grades 7+, Ages 12+.

Price: \$301.00

Code: AE3101

Price: \$25.00

# **Stick To Science Genetics Cards**

Solve the puzzle of how genes are inherited and sometimes appear or disappear in families. Using these 36 magnetic shapes representing males and females with the three possible genetic combinations (affected, carriers or not affected) all types of inheritance (complete dominance, incomplete dominance whether autosomal or sex linked) can be investigated. The teacher's guide has actual case studies and lesson outlines as well as reproducible student work sheets.

Code	Description	Price
AESI-50190	Stick To Science Genetics Cards	\$15.00

# **Teaching Genetics Made Easy Kit**

"Mate" a sperm and egg containing selected genes, then have your students produce Drosophila with dozens of different traits. Demonstrate the steps of Mitosis by dividing chromosomes for the class. (26 exciting hands on demonstrations). Comes complete with 76.2cm x 101.6cm Demonstration Board, Mounting Legs, Teacher's Guide with detailed lesson plans plus reproducible student worksheets. Grades 6+, Ages 11+.

AET-603 AET-603TG

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Teaching Genetics Made Easy Kit Teaching Genetics Made Easy Kit 76.2cm x 101.6cm 76.2cm x 101.6cm

\$405.00 \$19.00



# Chemistry 200

Discover the amazing world of chemistry by conducting the experiments provided in this kit. Learn about what an acid and a base is, the properties of water, the different types of chemical bonds, how a microwave oven heats food, and how to inflate a balloon without blowing. The 36 page educational book provides step by step instructions for 10 experiments and the science behind them!

Grades 3+, Ages 8+

Code: AESFY-91246 Price: \$22.00



Molecular Model Study Kit

Used to make and study how molecules build to form a variety of combinations and how they break down. Kit consists of Styrofoam balls, small plastic spheres, and connectors. By combining these materials, students can examine the geometry of certain molecules in the Earth's crust. Grades 6+, Ages 11+.





# Science | Biology



#### **Chemistry Clever Catch®**

Another great addition to the Science classroom. The Chemistry Clever Catch® Ball is a helpful resource for review. Sample questions for this ball include: Which of the 3 basic particles in an atom lacks an electrical charge? A buffered solution resists changes in . Question and Answer sheet is included. 96 questions. Includes repair patch. Circumference is 48" w hen inflated. No latex! Grades 6+, Ages 11+.

Code: AESR-1434 Price: \$30.00





#### **Molecular Models Set**

Build 3-D models of molecules! Each atom center is designed to accept bonds at the proper angle which gives the appearance of molecular bonding. Molecular sets are easily constructed using the plastic components. 2 black tetrahedral carbon center, 2 Blue tetrahedral nitrogen centers, 6 Green univalent chlorine centers, 4 Red diunivalent oxygen centers, 1 Yellow diunivalent sulfur center, 8 White univalent hydrogen centers, 20 Plastic bond connectors, and 4 Flexible connectors. 47 pieces. Grades 7+, Ages 12+.

Code: AER-MOD1 Price: \$79.00

Code: AER-MOD2

Grades 7+, Ages 12+.

Price: \$85.00

#### Chemistry: An Atom Building Game

In Chemistry: An Atom Building Game, players must use their knowledge of chemistry to construct the atom with the most protons, neutrons and electrons (i.e. Nucleon points). Players must use their wit and knowledge to develop a strategy using the various types of Chemistry cards to create an atom that will dwarf the other players' atoms. Ideal for 2-4 players or up to 4 small teams. 177 Cards Total. 48 Nucleon cards: 16 protons (p+), 16 neutrons (n°), and 16 electrons (e-); 100 Question cards (10 decks of 10 cards) colour-coded by topic; 25 Chemistry cards; 2 Quick Reference cards; 2 Periodic Table cards. Grades 7+, Ages 12+.

AE472 Chemistry: An Atom Building Game

**Teacher's Table Of The Elements** 

Teacher's Table Of The Elements

**Teacher's Table Of Elements -Historical Expansion Set** 

\$29.00

\$99.00









AE476

# **Teacher's Table Of Elements -Geochemistry Expansion Set**

Historical Expansion Set

Teacher's Table Of Elements

This supplemental set of cards and 32 page guide will give advanced chemistry and earth science students an understanding of the elements, structure and bond strengths as they apply to minerals. This product is for use with the Teacher's Table of Elements (475, above). Grades 9+, Ages 15+.

Furthering the numerous learning possibilities of the versatile Teacher's Table of Elements (475, above), this expansion card set and Teacher's Guide will enable educator's to put a whole new perspective on the periodic table. Included are six card sets of six different colours, each unique to a period of time and a 17 page Teacher's Guide that includes detailed instructions and activities. This product is

for use with the Teacher's Table of Elements (475, above). Grades 6+, Ages 11+.

\$25.00

Code Description AE478 Teacher's Table Of Elements Geochemistry Expansion Set

\$26.00



**Organic Chemistry** 

**Molecular Models Kit** 

Construct hydrocarbon molecules

(alkenes, benzene, etc.), functional

isomers all with the same kit! Twelve

hydrogen atoms, chlorine atoms and

covalent bonds. 52 pieces per pack.

individual packets each contain models

groups (alcohols, acids, etc.) and

of carbon atoms, oxygen atoms,

## Crystal Growing Tree Classroom Set

Watch these fast crystals grow in one class period! In 15 minutes, students and teachers will be amazed as they watch crystal buds appear and develop into leaves and branches. The crystal leaves are yellow, green, red, blue, and white. Crystals grow in air for easy inspection. Can be observed with a magnifier or microscope. Top of the tree on growing stand is 12.7cm above table. Directions include 17 questions for students. Answers are included in the activity guide, and they point out events to observe as the tree grows. The kit includes materials for 30 students. Grades K-8, Ages 5-13.

Price \$39.00 AECT30 Crystal Growing Tree Classroom Set 12.7cm

## Meltdown<sup>™</sup> A Cooperative Chemistry Game

Students are employees at a nuclear power plant and they must work together to keep the reactor core from melting down. To accomplish this, they must use control rods and their wit to keep the reactor core stable. Students must be careful because reactions in the core can get out of control, radiation leaks can occur and budget cuts can keep them from stabilizing the core. Students must use their knowledge of chemistry to keep the core stable. Do your students have what it takes to be a nuclear engineer, a nuclear scientist, a nuclear technician, a station manager, or a nuclear operator? Test their chemistry knowledge and prevent a Meltdown! Grades 8+, Ages 13+.

Code	Description	Price
AE4587	Meltdown™ A Cooperative Chemistry Game	\$29.00



## Magnetic Periodic Table Investigation

Use this investigation of the first 20 elements of the Periodic Table to illustrate the core concepts of atomic theory. This selection of element cards that stick to the black or white board are designed to minimize the extra information while focusing on essential points. This allows students to become active learners as they discover the concepts and trends as they sequentially build the table. The cards can be used to illustrate several major concepts including Families & Periods, Atomic Number & Mass, Electron Shells & Valency, and Isotopes. This set includes elements 1-20 plus: Hydride (H-), 14 additional elements (4 x H, 3 x O, 2 x CL, 1 x F, 2 x Na, 2 x K). 3Mg Isotopes, and Au & Pb. Teacher's notes also included. Grades 12+, Ages 7+.

Code	Description	Price
AESI-50200	Magnetic Periodic Table Investigation	\$29.00

#### **Chemical Nomenclature Cards**

Using this set of 140 + 4 blank write and wipe magnetic cards representing the most common cations and anions including polyatomic ions and multiple valency elements students can investigate not only the sometimes perplexing naming of compounds but the balancing of equations. These stick to almost all black boards and white boards and have been designed for both nomenclature systems used in chemistry today. The teacher's guide includes lesson outlines and reproducible student work sheets. Grades 7+, Ages 12+.

AESI-50195 Chemical Nomenclature Cards \$45.00



#### Understanding The Periodic Table Game Puzzle

Students build their own Periodic Table in this game! Puzzle effectively reinforces the difficult conceptual information necessary for a thorough understanding of the Periodic Table. Kit includes enough material for 4 students or small groups to work simultaneously. Complete instructions and guides included. Grades 4+, Ages 9+.

Code: AE477

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Price: \$99.00

Science | Chemistry

#### Periodic Table Of The Elements Wall Chart

Large 124cm x 96cm chart is printed in four colours to insure easy visibility from every corner of the classroom. Durable material will withstand heavy classroom use. Elements included up through UUO #118. Grades 7+, Ages 12+

AE479 Periodic Table Of The Elements Wall Chart

Price 124cm x 96cm \$33.00

SCIENCE







## **The Science Of Staying Balanced**

Discover the secrets of walking the tightrope, learn about the center of gravity and measuring weight! Includes: Light and durable pieces to assemble 1 poised Parrot, 1 Mathematical Balance, 1 Teetering Penguin, 1 Pisa Tower, copper wire, fasteners, a paper clip, magnets, a set of 6 markers, and an instruction booklet with fun scientific facts. Grades 1-4, Ages 6-9.

Code: AE6-740124

# Price: **\$25.00**

The Science Of Colours & Light

Discover a dazzling world of shapes and colours, learn about optics and visual perception! Includes: Light and durable pieces to assemble 1 Kaleidoscope, 1 Spinning Button, 1 Where is the Coin, 2 3D Glasses, semi transparent coloured sheets, mirrors, pieces of string, a set of 6 markers, and 1 instruction booklet with fun scientific facts. Grades 1-3, Ages 6-8.

Code: AE6-740120 Price: \$25.00

#### The Bernoulli Principle

Build a device that will allow you to explore Bernoulli's Principle. What will happen to the two balls when you blow air through the straw between them. Each device has 18 pieces, 2 foam balls, and 1 rope. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. Grades 3+, Ages 8+.

Code AE6-80040

Price: \$69.00



#### The 3D Glasses

Build 3D glasses and explore how they facilitate the illusion of depth. Each of the coloured lenses filters out a certain part of the visible spectrum of light. If this principle is smartly used, then each eye receives a slightly different image, tricking our visual system. Each set has 4 pieces and 2 semi transparent colour sheets. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. Grades 1+, Ages 6+.



#### The Spinning Button

Can you make the colours of the button disappear? Simply roll the rope and release it by repeatedly pulling the handles. The button in the middle will start spinning at high speed. Each set consists of 3 buttons and 1 rope. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. Grades 3+, Ages 8+.



## **The Science Of Codes** & Riddles

Discover how to crack the safe, learn about codes, and mathematical induction! Includes: Light and durable pieces to assemble 1 Induction Rings, 1 Safe, 1 Hanoi Tower, 1 Lock, a set of 6 markers, and 1 instruction booklet with fun scientific facts. Grades 1-7, Ages 6-12.

Code: AE6-740126

#### Price: \$25.00

Code: AE6-740128

Grades 1-7, Ages 6-12.

**The Science Of Forces** 

Discover the incredible jet force, the secrets

of flight, and learn about energy convertions! Includes: Light and durable

pieces to assemble 1 Bernoulli Principle,

Dynamometer, a set of 6 markers, and 1

instruction booklet with fun scientific facts.

. 1 Jet Car, 1 Boomerang Wheel, 1

& Energy

Price: \$25.00

#### The Science Of Measuring Weight & Time

Discover the secrets of telling time, learn about the center of gravity and measuring weight! Includes: Light and durable pieces to assemble Clock, 1 Sundial, 1 Mathematical Balance, 1 Dynamometer, a rubber band, a set of 6 markers, and 1 instruction booklet with fun scientific facts. Grades 1-4, Ages 6-9.



Code: AE6-740122 Price: \$25.00

#### The Hooey Stick

The Hooey is a stick with a series of notches and a propeller. Rubbing it against another stick across one side of the notches will make the propeller spin in one direction. Rubbing the other side will magically make the propeller spin in the other direction. Each Hooey Stick has 3 pieces. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. Grades 1+, Ages 6+.

Code: AE6-80010 Price: \$19.00







#### The Tower Of Hanoi

Legend has it that the priests of the Brahma Temple, following an ancient prophecy, needed to solve a mysterious puzzle. Their only task is to move a stack of disks from one rod to another. However, the Brahma laws states that they are not allowed to place a larger disc on top of a smaller one. Can they do it? How long will it take? Each set comes with 15 pieces. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities.

Grades 4+, Ages 9+.



#### Price: \$52.25 Code: AE6-90020 Price: \$69.00

The Induction Rings

Do you really understand the

shape of the towers you have just built? If so, can you get the

string to circle the high tower? The

middle one? And what about the

small one. Each set comes with

15 pieces and 1 rope. Includes materials to make 24 sets and

teacher instruction sheet complete

with scientific facts and activities.

Grades 4+, Ages 9+.

Code: AE6-90010 Price: \$49.00 Code: AE6-80030 Price: \$25.00 Code: AE6-90030







The Dynamometer

Build your own Dynamometer and measure the force exerted by the Earth's gravity on objects around you. Calibrate your Dynamometer and explore how it works. Each Dynamometer has 5 pieces and 1 rubberband. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. **Grades 3+, Ages 8+.** 

Code: AE6-80020 Price: **\$25.00** 







# The Mathematical Balance

Build a Mathematical Balance and explore mathematical and algebraic concepts in a tangible and fun way! Each set comes with 22 pieces. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. **Grades 1+, Ages 6+.** 

Code: AE6-90040 Price: **\$59.00** 

#### The Mangonel

Build a Mangonel and experience the launch power of a medieval siege engine! Did you know that a Mangonel was a type of catapult used during the medieval period to throw objects at a low trajectory and high velocity to destroy castle walls? 37 pieces. Assembled size is 106cm x 195cm x 41cm. Grades K+, Ages 5+.

Code: AE6-10020 Dimensions: 10cm x 19cm x 4cm Price: **\$15.00** 

#### **The Catapult**

The catapult is a device with a lot of power. Build one and see for yourself how ancient armies used to conquer their enemies with the Koontz<sup>™</sup> Catapult kit! Did you know a catapult is a siege engine used to hurl a projectile (usually a large stone) a great distance? 12 pieces. Assembled size is 10cm x 14cm x 12cm. **Grades K+, Ages 5+.** 

Code: AE6-10030 Dimensions: 10cm x 14cm x 12cm Price: **\$19.00** 

## Walking The Tightrope

walking on a tightrope or doing handstands with the Koontz<sup>™</sup> Walking the Tightrope kit! Did you know that the center of mass is an imaginary point on a body where all of its mass is considered to be concentrated? To stay balanced, an acrobat needs to position his/her center of mass over the base of his/her body. 25 pieces total. Assembled sizes: Acrobat - 8.89cm x 7cm x .83cm, Parrot - 15cm x 7cm x 5cm, Penguin - 12cm x 12cm x 6cm, Stand - 11cm x 11cm x 10cm. **Grades K+, Ages 5+.** 

Code: AE6-30015 Price: \$19.00



Where Is The Coin?

Where is the coin that you just put inside the box? This trickey box has a mirror inside, so don't beleive everything you see? Each set comes with 6 pieces and 1 mirror. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. **Grades 1+, Ages 6+** 

Code: AE6-100030 Price: **\$55.00** 





#### **The Pisa Tower**

How is it that the Leaning Tower of Pisa does not topple over? Build a model and learn about center of gravity. Each set comes with 12 pieces, 8 metal bolts, 1 metal wire, and 1 paper clip. Includes materials to make 24 sets and teacher instruction sheet complete with scientific facts and activities. **Grades 1+, Ages 6+.** 

Code: AE6-100020 Price: **\$69.00**:

#### The Sundial

Have you ever wondered how we would tell time if we didn't have modern day clocks? Build a sundial and discover how to tell the time of day! 35 pieces. Assembled size is 6cm x 11cm x 12cm . **Grades K+, Ages 5+.** 

Code: AE6-50040 Dimensions: 6cm x 11cm x 12cm Price: **\$15.00** 

# The Chaotic Pendulum

Discover how the power of magnetism causes this pendulum to undergo chaotic motionand keep you guessing what its next move will be with this Koontz<sup>™</sup> Chaotic Pendulum kit! Did you know that one of the most familiar types of pendulum is a swing at a playground? 17 pieces. Assembled size is 19cm x 17cm. **Grades 1+, Ages 6+.** 

Code: AE6-40020 Dimensions: 19cm x 17cm Price: **\$19.00** 

#### The Periscope

Discover how to see without being seen with the Koontz<sup>™</sup> Periscope kit! Did you know periscopes are used in submarines, and date as far back as World War 1? 8 pieces. Assembled size is 16cm x 10cm x 7cm. **Grades K+, Ages 5+**.

Code: AE6-20020 Dimensions: 16cm x 10cm x 7cm Price: **\$19.00** 





The Merry Go Round See centripetal force in action with the Koontz<sup>™</sup> Merry Go Round kit! Anyone can enjoy a merry go round, but not everyone can understand how it works. Discover the secrets of rotation. 24 pieces. Assembled size is 14cm x 14cm x 16cm. Grades 2+, Ages 8+.

#### Code:AE6-40010 Dimensions: 14cm x 14cm x 16cm Price: **\$19.00**



#### The Kaleidoscope

Discover a dazzling array of shapes and colours. Close one eye and surrender to the spectacular and colourful world of the Kaleidoscope with the Koontz<sup>TM</sup> Kaleidoscope kit! Did you know that kaleidoscopes are used as the light source behind flat-screen TVs and computer monitors? 13 pieces. Assembled size is  $5.7'' \times 2.3''$ . **Grades K+, Ages 5+**.

Code: AE6-20010 Dimensions: 14cm x 6cm Price: **\$19.00** 



#### The Jet Car

Discover how the incredible jet force propels boats, planes, and missiles with the Koontz<sup>™</sup> Jet Car kit. Did you know that a jet engine shoots out a strong gust of air from the back end of the vehicle, which propels the vehicle forward? 22 pieces. Assembled size is 16cm x 9cm x 10cm. **Grades K+, Ages 5+**.

Code: AE6-40040 Dimensions: 16cm x 9cm x 10cm Price: **\$19.00** 



#### The Clock

Discover the secret to the clock's hand movements with a Koontz<sup>™</sup> Clock kit. Did you know in a mechanical clock, the motion of the hands depends on the motion of the gears? 21 pieces. Assembled size is 10cm x 16cm x 6cm. **Grades 2+, Ages 8+**.

Code: AE6-50010 Dimensions: 10cm x 16cm x 6cm Price: **\$19.00** 



#### The Combination Lock Discover how to crack the code of an ancient puzzle with the Koontz<sup>™</sup> Combination Lock kit. Did you know that each combination lock is a puzzle? Only one combination can open the lock's unique design. 14 pieces. Assembled size is 8cm x 8cm x 11cm. Grades 2+, Ages 8+.

Code: AE6-50030 Dimensions: 8cm x 8cm x 11cm Price: **\$19.00** 

# **RENEWABLE ENERGY**



**The Boomerang Wheel** Discover the secret to the wheel's motion with the Koontz<sup>™</sup> Boomerang Wheel kit! Did you know that the wheel conserves energy by converting potential energy into motion? 15 pieces. Assembled size is 8.89cm x 13cm. **Grades 2+, Ages 8+**.

Code: AE6-40030 Dimensions: 8cm x 8cm x 12cm Price: **\$19.00** 



#### The Safe

Discover the inner workings of a combination lock used in safes with the Koontz<sup>™</sup> Safe Kit! Did you know that each lock on a safe is a puzzle? 55 pieces. Assembled size is 12cm x 8cm x 11cm. **Grades 3+, Ages 9**+.

Code: AE6-50020 Dimensions: 11cm x 8cm x 12cm Price: **\$19.00** 



# Natural Energy Kit

This kit has 19 hands-on activities which explore electric, wind, solar, geo-thermal, biomass and nuclear energy. Kit includes: a Teacher's Guide and lab materials for five students. **Grades 6+, Ages 11+**.



Wind Tunnel

Code: AE649

Students can make a variety of aerodynamic studies with an actual wind tunnel. A wing can be constructed and lift calculations can be made to give students an idea of how efficient their wing is. Students can also visually analyze the efficiency of their creation using a smoke stream. Assembly instructions are included. **Grades 6+, Ages 11+**.



#### Wind Turbine

This exciting kit allows students to build and test a fullyfunctional wind turbine. The 10 page comprehensive guide was developed by the Kidwind Project and contains in-depth information about history, turbine design, and wind energy. Students use a multimeter (included) to monitor how much power their wind turbine produces. **Grades 6+, Ages 11+.** 

Code: AE3980

Price: \$199.00

Price: \$

Price: \$345.00

Code: AE7-1874 Price: \$55.00



# 1. Solar House - Renewable Energies Science Kit

Construct a solar house and perform 10 experiments with this all-inclusive eductional kit! What is solar entergy? How can you make your house comfortable during winter and summer in an efficient way? How does a solar panel work? Find the answers to these questions and more with this easy to assemble solar house. Watch it come to life with LED lights, spinning windmill, and a working alarm door! Contains over 30 pieces and a complete 36 page educational booklet. Grades 3+, Ages 8+.

AESFY-91635 Solar House - Renewable \$49.00 **Energies Science Kit** 

#### 2. Solar Plane

Do you know why planes fly? It seems to be magic but in fact has a scientific explantion! Build and decorate your very own plane and watch the propeller spin as your plane is powered by sustainable energies. With the help of this kit you will realize why the use of a sustainable and environmentally friendly power source, such as solar energy, can be a good choice to make a plane fly. Learn about other sustainable power sources, other sun powered vehicles, and if a plane can fly using only the suns energy. All of this included in this exciting comprehensive kit, complete with 26 pieces and a 24 page educational booklet! Grades 1+, Ages 6+.

Code	Description	Price
AESFY-91666	Solar Plane	<b>\$19.00</b>

#### Solar Oven

SCIENCE

Gain experience with solar radiation using this solar oven. It has reflective surfaces that concentrate heat radiation in the central chamber, resulting in temperatures up to 350°. An accompanying Teacher's Guide gives suggestions for classroom experiments. Grades 3+, Ages 8+.

Code: AESR-GS4702

Price: \$79.00

Code: AE4706 Dimensions: 27cm x 27cm x 20cm Price: \$85.00

#### **Investigating Renewable Resources Chart**

The relationship between resources that are renewable in one human life span and the associated products are clearly illustrated on this visually appealing chart. Students will be enticed to investigate the worldwide resources for materials they use every day. This chart complements the Investigating Non-Renewable Resources Chart. 45cm x 61cm. Grades 6+, Ages 11+.

Code	Description	Dimensions	Price
AE2566	Investigating Renewable Resources Chart	45cm x 61cm	\$66.00

# 3. Wind Power Generator

Discover the wonderful world of wind energy by conducting the experiments provided in this kit! What is wind power? How does the windmill work? What is wind? You will find answers to these questions and more in the comprehensive 28 page educational book. Complete with all the tools needed to assemble a small wind power generator and teach curious young scientists about this form of renewable energy! Grades 3+, Ages 8+.

Code	Description	Price
AESFY-91758	Wind Power Generator	\$19.00

# 4. Claim And Save

Challenge a friend in this extra-fun adaptation of the classic 'Join the Dots' game! Bring this game to life by recusing wild creatures from around the world. Learn about 30 loved and endangered animals as you play your favorite game! The more 'threatened' the species, the higher your points will be. Double your points with claiming squares on the second level. Includes: 1 grid (8x8), 144 grass hedges, 64 animal tokens, Animal Worksheets, 1 score pad, 1 pencil, and instructions. Grades 1+, Ages 6+.





#### **Sunpower House**

Expand students' understanding of energy costs with this working model of a passive solar house. The 27cm x 27cm x 20cm model comes complete with a detailed Teacher's Guide containing activities in basic science, solar energy and energy conservation. Grades 3+, Ages 8+.



common materials vital to our way of life. Students will be able to investigate regions worldwide where we mine various categories of ores and fossil fuels that will not be replenished naturally during one human life span. This chart complements the Investigating Renewable Resources Chart. 46cm x 61cm. Grades 6+, Ages 11+.

Code	Description	Dimensions	Price
AE2565	Investigating Non-Renewable Resources Chart	46cm x 61cm	\$66.00

#### Solar Furnace

Demonstrate the extraordinary power of the sun by concentrating solar energy with this 30cm diameter parabolic dish. Using its reflective mirror, the furnace can generate extreme temperatures to heat materials placed in the attached copper receptacle. Teacher's guide with 6 experiments is included. Grades 3+, Ages 8+.

Code: AE4701 Price: \$149.00

Dimensions: 30cm





# Science | Renewable Energy

# 1. Alternative Energy Clever Catch®

Students are informed about options for energy needs in their futures. This Clever Catch® Bal' reviews those options with true or false, multiple choice and fill in the blank questions. The inflatable vinyl ball is easy to catch! Students toss the ball around the classroom and answer the question which is under their left thumb. May be used outside, too! All Clever Catch® Balls include a question and answer sheet that the teacher will want to keep. 90 questions. Circumference is 62CM when inflated. Includes repair patch. No latex!

Grades 5+, Ages 10+.

AE1460 Alternative Energy Clever Catch® 121cm \$30.00

# 2. Recycling Clever Catch®

Jr. High students are great recyclers! They've been doing it all their lives. This Clever Catch® Ball includes true or false, multiple choice and fill in the blank questions. 95 questions. Circumference is 48" when inflated. Includes repair patch. No latex! Grades 5+, Ages 10+.

Price

Sample questions include:

Which of the following contributes to groundwater pollution?

A. smoke stacks B. sunlight C. leaky landfills are?

Code Description Recycling Clever Catch® \$30.00 AE1459

# 3. Green Earth Clever Catch®

Energy conservation, Recycling and Global Warming! These topics and more are included on this Green Earth Clever Catch®. Environmental issues are popular topics today, both in the news and in the science world. Students in grades 6+ toss the Clever Catch® around he classroom and where ever their left thumb lands, is the question they answer. 107 questions. Circumference is 62CM when inflated. Includes repair patch. No latex! Grades 6+, Ages 11+.



#### **Geology Models**

Discover the complexities of geological facts with this series of eight fully detailed geology models. In addition to surface formations, cross-sectioning depicts subsurface structures. Models are accompanied by a Teacher's Guide, numerically keyed to each individual model, allowing focused study of specific features. Each model is 35cm x 30cm and is sturdy enough for student handling or wall display. Grades 6+, Ages 11+.

Code	Description	Dimensions	Price
AE500	Geology Models SET/8	35cm x 35cm	\$415 <b>.00</b>
AE501	Geology Models SET/4 (MOI	DELS 1-4)	\$230.00
AE502	Geology Models SET/4 (MOI	DELS 5-8)	\$230.00

Code: AE505 Dimensions: 46cm x 61cm

**Alpine Glacier Model** 

These models will give students the

opportunity to observe the effects of

glacial movement without having to endure glacial time. First model depicts

a glacier in its active stage, while

the second model shows post-glacial

conditions. Using the second model,

students can create their own glacier

melting and deposition of glacial till. Each model is 46cm x 61cm, formed

in high impact plastic. Teacher's Guide included. Grades 6+, Ages 11+.

using ice and sand to observe glacial

Price: \$69.00

Code: AE541 Price: \$45.00

**SCIENCE** 

#### **Minerals Clever Catch®**

Are they Hard or Soft? Are they Dull or Shiny? Cleavage, Streak, Colour, Luster. These are just a few properties of Minerals, and the Minerals Clever Catch® ball gives you 95 different facts to review these properties. True or False, multiple choice and fill in the blank! Circumference is 121cm when inflated. No latex! Includes repair patch. Grades 6+, Ages 11+.

Example questions include:

- True or False: Silver is an element and a mineral.
- Talc is one of the \_\_\_\_\_ \_\_\_\_ minerals. A. softest or B. hardest

Code	Description	Dimensions	Price
AESR-1430	Minerals Clever Catch®	121cm	\$30.00

#### **Rocks Clever Catch®**

Students in grades 6+ will say "Rocks Rock!" See their excitement, when students review the earth material facts surrounding "rocks". There are 96 fascinating facts on this inflatable vinyl ball, covering Igneous, Metamorphic and Sedimentary rock types. Tossing the ball around the classroom, bouncing it on the playground or spinning it around at home makes for a fun and easy way to learn or review rocks. Circumference is 121cm when inflated. No latex! Includes repair patch. Grades 6+, Ages 11+.

Example questions include:

• Geologists would say that mountains are made of

• True or False: Two common metamorphic rocks are limestone and basalt.

Code	Description	Dimensions	Price
AESR-1429	Rocks Clever Catch®	121cm	\$30.00





# Seismograph Model

Our Seismograph Model gives students a better understanding of how earthquakes are measured and calculated to determine intensity. This small table top unit will captivate your students as they try to top the Richter Scale. Simulate your own earthquakes and the seismograph will accurately record their intensity. The kit comes complete with a detailed Teacher's Guide. Excellent for

Grades 6+, Ages 11+.



#### Landform **Demonstration Kit**

Recreate, in your own classroom, the geological forces that have shaped the planet Earth. Over 20 activities are included in this kit that will enable your students to develop a thorough understanding of volcanic action, faulting and folding, as well as, many other geologic processes. Kit includes demonstration tray, three pieces of flexible foam, three simulated rock structures, an erupting volcano, miscellaneous project materials and comprehensive Study Guide. Grades 5+, Ages 10+.

Code: AE555 Price: \$79.00



## **Introductory Earth Science Collection**

Basic unit of 75 rocks and minerals demonstrates major rock-forming minerals, the scale of hardness and recognized physical properties. Unit includes 75 specimens, each size 2.54cm x 2cm, a streak plate, magnet, magnifier and compartmented container. Teacher Edition specimens are 7.62cm x 7.62cm. Grades 5+, Ages 10+.



Contains 15 representative specimens of intrusive and extrusive igneous rocks, each approximately 3.81cm x 3.81cm. Includes key and chart. Grades 5+, Ages 10+.

**Economy Rock** 

A great introduction to studying

five 2.54cm x 2.54cm specimens

the basic rock types. Includes

of igneous, sedimentary, and

auide, and magnifying glass.

Dimensions: 2.54cm x 2.54cm

metamorphic rocks, activity

Grades 4+, Ages 9+.

**Study Kit** 

Code: AE2217

Price: \$25.00



#### **Earth Materials Kit**

The Earth Materials Kit affords an almost endless variety of investigations. Three basic investigations are included, which will serve as a starting point for future investigations. Kit includes 15 pieces each of 24 rock types, and 100 cc's of crushed granite, 30 pieces of halite, 5 pounds of limestone chips, 1# each of soil horizon A and soil horizon C, storage containers and Teacher's insert. Enough materials for an entire classroom of 30 students working in pairs.

Grades 5+, Ages 10+.

Code: AE2650-S Price: \$125.00



# **Metamorphic Rock** Collection

Contains 15 representative metamorphic rock specimens, each approximately 3.81cm x 3.81cm, number-coded in a compartmented container. Includes key and chart. Grades 5+, Ages 10+.



#### **Density Kit**

Various shapes are used to teach students how to make measurements in the Metric System and how to use the formula: Density = Mass/Volume. Students use the various materials to demonstrate densities. Includes one 7.62cmx 2.54cm x 0.635cm aluminum bar, two 1.27cm aluminum cubes, one 1.27cm diameter steel sphere, one glass sphere, and one 15 cm scale. Grades 6+, Ages 11+.

Code: AE3131 DENSITY KIT Price: \$19.00

Code: AE3132 DENSITY KIT, SET/10 Price: \$140.00



# **Sedimentary Rock** Collection

Contains 15 representative sedimentary rock specimens, each approximately 3.81cm x 3.81cm. Includes key and chart. Grades 5+, Ages 10+.

Code: AE2175 Price: \$99.00

Code: AE2180 Price: \$370.00 Dimensions: 7.62cm x 7.62cm

#### Code: AE2221 Dimensions: 3.81cm x 3.81cm Price: \$27.50

Code: AE2226 Dimensions: 3.81cm x 3.81cm Price: \$29.00

Code: AE2231 Dimensions: 3.81cm x 3.81cm Price: \$29.00

# **Mounted Hardness Collection**

X 7 1/8" full colour cardstock which holds 9 specimens in their order from the softest (#1 Talc) to the hardest (#10 Diamond – not included). There are indicators on the card which instruct the students what will affect the surface of each of these specimens. This economy version of the Hardness Collection has specimens measuring 1.27cm to 3cm in size. The card is packaged in a resalable zip lock bag. Grade Level 6+, Ages 11+.

Code: AE2354 Dimensions: 1.27cm to 3cm Price: \$19.00





#### **Mineral Id Starter Set**

Contains 30 different minerals (5 of each sample) to be used with the taxonomic key contained in the lab manual. Students test for hardness, specific gravity, colour, streak, and cleavage. Includes a Mineral Testing Kit which consists of a streak plate, glass plate, hand lens, magnet, acid bottle, nail, penny, and hardness scale. **Grades 7+, Ages 12+.** 

CodeDescriptionPriceAE2770Mineral Id Starter Set\$115.00



#### **Investigating Minerals And Rocks**

This chart shows 93 of the most common mineral and rock specimens, ordered and classified by their composition (minerals) and how they are formed (rocks). Includes 40 Minerals, 18 Igneous Rocks, 18 Sedimentary Rocks and 17 Metamorphic Rocks mounted on this 46cm x 60cm Chart. Wood framed on sturdy backing. **Grades 7+**,

 Code
 Description
 Dimensions
 Price

 AE2575
 Investigating Minerals
 46cm x 60cm
 \$66.00

 And Rocks
 And Rocks
 \$66.00



#### **Classroom Collection Of Rocks And Minerals**

Designed for general classroom use, kit includes specimens in the following groups: igneous, sedimentary and metamorphic rocks, ores, gemstones and rock forming minerals. 50 specimens approximately 2.54cm x 2.54cm. Includes the Rocks and Minerals Study Guide. **Grades 5+, Ages 10+**.

Description Classroom Collection of Rocks And Minerals	Dimensions 2.54cm x 2.54cm	
ROCKS AND MINERAIS		



#### Investigating Non-Renewable Resources

Students explore the world's mineral and rock resources and how man uses them all. Mounted natural specimens and corresponding man made products (ie. gypsum & wallboard, bauxite & aluminum) are placed on a map of North America. 46cm x 60cm in wood frame. **Grades 6+, Ages 11+.** 

	Description	Dimensions	
AE2575	Investigating Non-Renewable Resources	46cm x 60cm	\$170.00



#### **Basic Rock Collection**

The Basic Rock Collection is a great introduction to Igneous, Sedimentary and Metamorphic rocks. The 12cm X 10cm full colour cardstock holds 18 - 1.27cm to 2cm specimens that explain the difference in these three types of rocks. Packaged in a resealable zip lock bag.

Grade Level 5+, Ages 10+.



#### Economy Mineral Study Kit

Students learn to identify these 15 common minerals by observing and testing their physical properties. Activity guide, magnifying glass, streak plate, and nail included. An excellent introduction to minerals for

Grades 4+, Ages 9+.

Code:AE2343 Price: **\$25.00** 





# **General Fossil Collection**

A selection of 15 fossils to illustrate the major life forms present throughout geologic history. A descriptive key sheet and geologic time chart introduces students to basic fossils and match the fossil to the era. Grades 6+, Ages 11+.

Code:AE3005

Price: \$29.00







Students will learn important fossil concepts while investigating large specimens carefully selected to illustrate ideas about their formation. The Fossil Collection comes in a sturdy storage box that contains twelve large (5cm x 7cm) specimens nestled in an attractive and durable display tray. The Teacher's Guide, reproducible student activity "field notebook", and reference cards for each specimen will ensure the successful use of these products. Also included are four quality hand lenses and a colour identification chart designed to provide clues and answers for the student user. Grades 6+, Ages 11+.

5cm x 7cm

Price

\$149.00

AE2830-S Premium Fossil Collection



# **Advanced Fossil Collection**

This comprehensive collection of 30 fossils contains demonstration specimens of animal phyla and plants from the Paleozoic, Mesozoic, and Cenozoic periods. The collection comes complete with a descriptive key sheet and geologic time chart. Grades 6+. Agers 11+.



# **Types Of Fossilization Collection**

The fossils in this study unit help to illustrate the major processes by which a life form is preserved as a fossil. Some of the specimens will illustrate processes such as petrification, pyritization, molds and casts and distillation. 15 natural specimens in a compartmented container. Grades 7+, Ages 13+

Code:AE3015-S Price: \$52.00

#### Code: AE3010-S Price: \$35.00

## **Fossil Laboratory**

The 21 plastic fossils and detailed Laboratory Manual in this kit will let your students become practicing paleontologists. Kit conveys importance of fossil study to investigations in geology, history, mapping, and stratigraphic correlation. Grades 7+, Ages 12+.

Code: AE568

Fascinate your students with the study of fossils. Kit contains 21 plastic reproduction fossils that students will measure, identify and classify according to their geologic era. Includes Fact Sheet. Grades 6+, Ages 11+.

Code:AE3067 Price: \$13.00



#### **Investigating Geological Time And Fossils Chart**

This completely revised multi-colour chart depicts the entire geologic time scale with most current geologic dating information. Representative fossils from the corresponding geologic periods are mounted on the chart. Chart size, 46cm x 60cm and comes with a wood frame.

# Grades 6+, Ages 11+.

Code	Description	Dimensions
AE3361	Investigating Geological	46cm x 60cm
	Time And Fossils Chart	

Price: \$66.00

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#### Life On Earth – A Fossil History Model

Life on Earth – A Fossil History is an exciting product designed to help students understand how life has changed over vast periods of geologic time. Constructed of durable vinyl, the 59cm x 63cm colourful 3-D model allows students to correlate 21 replica "fossils" to realistic looking rock layers. Illustrations and "fossil" include both marine and terrestrial life forms from the Pre-Cambrian through the present. Eons, eras, periods, epochs and years are clearly shown on the chart. The Teacher's Guide includes: classroom activities, pre/post tests, reference materials, and glossary. National Standards Correlation sheets are included. Grades 5+, Ages 10+.

Description Life On Earth - A Fossil History Mode	Dimensions 59cm x 63cm	11100
Description 5 Sets Of 21 Fossil Reproductions	Dimensions 59cm x 63cm	

Price: \$19.00



#### **Planet Walk**

04

This product is designed to help students understand the sizes of the planets and the spacing of the planets at the same time. The elementary student will appreciate the visual display the model provides and high school students will present their own fact filled research without much guidance from the teacher. The Planet Walk teacher's guide also refers to the four minor planets which many other astronomy products do not. Complete assembly and set up instructions included. One set of planet cards for set up in a gymnasium (86' required) and one set of cards for set up on a football field (424' required). The 56 page spiral bound, full-colour guide with glossary, takes the teacher on a tour of the Solar System. National Standards Correlation sheets are included. Internet resources and Web links for additional information are included. Grades 3+, Ages 8+.





#### Orbiter

How many days does it take the Earth to revolve around the Sun? The answer to this question and more are answered when using this gear-driven model representing the Sun, Moon and Earth and their relationships. Daylight, night, seasons, and phases of the Moon are all effectively demonstrated. Arm is 38cm long; Sun is 15cm in diameter; Earth is 10cm in diameter; moon is 1" in diameter. Includes Study Guide. Grades 3+, Ages 8+.

Code	Description	Price
AE101	Orbiter	\$215.00

#### **Solar System Simulator**

See the solar system in action! The Solar System Simulator is a three-dimensional model of our Sun and the eight planets. The calendar at the base allows the positioning of planets according to the date and shows the relative position between individual planets and the sun. Grades 3+, Ages 8+.

ode	Description	Price	
F200	Solar System Simulator	\$150.00	



#### 1. Exploring The Earth Moon System

This kit includes our Orbiter, Microslide® Viewer and lesson sets. A 44-page Teacher's Guide with activities using the above two products as well as many other handson experiments and extension activities. Grades 4+, Ages 9+.

Code Description AE155 Exploring The Earth Moon System

\$301.00

#### 2. Exploring The Solar System

Twenty complete lessons include hands-on activities that combine our best selling products, the Solar System Simulator, the Microslide® Viewer and lesson sets, to further the investigation of our solar system. Grades 4+, Ages 9+.

Code	Description	Price
AE203	Exploring The Solar System	\$200.00

#### **Illuminated Orbiter**

Light up the Sun with this version of the Orbiter (#101). The model can be plugged into a standard wall outlet (UL approved - 6' power cord) to illuminate the Sun to effectively demonstrate daylight, night, seasons, and phases of the Moon. The Sun, Earth and Moon manually revolve around one another on this gear-driven model. The earth and moon are shown in true scale. The scale is 1 inch = 2000 miles. If the sun were to be shown at the same scale, it would be approximately 36 feet in diameter! Arm is 38cm, Sun is 15cm and the Earth is 10cm in diameter. Includes an 8 page Lesson Plan which includes basic investigations and activities on Day and Night, The Seasons, The Moon, plus Observations and Activities. Grades 3+, Ages 8+.

Science | Astronomy

AE151 Illuminated Orbiter \$310.00

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#### 3. Mars Rock Kit

This collection contains six hand samples of rocks with are similar to rocks found on Mars. The Teacher's Guide contains information about the evolution of our neighboring planet. Detailed descriptions of each sample are included. **Grades 6+, Ages 11+.** 

Code Description Price AE2278 Mars Rock Kit \$25.00

#### 4. Moon Rock Kit

This collection contains six hand samples of rocks and minerals which are similar to the rocks and minerals found on the moon. The Teacher's Guide contains lessons about the formation of the moon and the subsequent evolution of our natural satellite. Detailed descriptions of each sample are included. **Grades 6+, Ages 11+.** 

CodeDescriptionPriceAE2275Mars Rock Kit\$25.00



#### Astrolabe Kit

This fascinating 18cm x 15cm device helps students to make real scientific measurements of declination, altitude and azimuth of celestial bodies in order to determine latitudinal position or to observe the motion of the Earth. Measurements of slope, strike and dip of geologic features can also be taken. **Grades 7+, Ages 12+.** 

Code	Description	Dimensions	Price
AE3014	Astrolabe Kit	18cm x 15cm	



#### **Celestial Star Globe**

Study the stars with your own planetarium! This unique 30cm diameter globe and 8cm world globe may be rotated independently. The meridian may be tilted to adjust the globe for latitude while the horizon ring indicates the actual horizon in relation to the point of observation on Earth. The Sun may be set by adjusting the sun knob located near the North Pole. Globe can be set to reflect constellation position according to time and place to show the actual positions of the stars. Globe has been printed on the inside so that a crayon may be used to mark positions of the planets or the moon on the outside. Includes a detailed Study Guide with nine different classroom activities. A National Standards Correlation sheet is included. **Grades 5+, Ages 10+.** 

Code	Description	Dimensions	Price
AE300	Celestial Star Globe	30cm x 8cm	\$255.00

# Astronomy Clever Catch®

Astronomy Clever Catch® brings the learning of Astronomy concepts into the hands of students! Players toss the ball to each other and call out the answers to one of the astronomy questions found under their left thumb. This Clever Catch® includes a list of game suggestions, directions, and answers in the teacher's guide. 115 questions. Includes repair patch. Circumference is 48" when inflated. No latex! **Grades 4+. Age 9+**.

Examples of some Astronomy related questions: What is the largest planet in the solar system? What are the phases of the moon? What are sun spots?

Code	Description	Dimensions	Drice
	Description Astronomy Clever Catch®		\$30.00



#### Moon Relief Map

Earth's natural satellite will seem more real to your students once they can feel the lunar highlands and the smooth maria. Let your students find the landing sites as they explore this raised-relief map and study new possible landing sites for the upcoming moon missions. This map measures 55cm x 86cm and displays the lunar near and far sides. Horizontal Scale at equator is 1:15,000,000; Vertical Scale is 1:1,000,000. **Grades 6+, Ages 11+.** 

Code	Description	Dimensions	Price
AE493	Moon Relief Map	55cm x 86cm	\$45.
AE493	Moon Kellet Map	SSCM X 80CM	\$43

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