

Elementary Science Program

Prices in this catalog are in effect
11/1/18 - 10/31/19

Guide for Services Purchase Catalog



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Overview

What is ESP?

The Elementary Science Program (ESP) of the Monroe 2–Orleans BOCES provides a hands-on, interdisciplinary curriculum that converts the elementary classroom into a science laboratory. It is a balanced content and process focused curriculum committed to providing students with concrete experiences that promote depth of understanding and science literacy.

Using the Elementary Science Program units, students learn to think, talk, and act scientifically. The inquiry process and problem solving is emphasized throughout the curriculum. Students are consistently building on their current knowledge, asking questions, conducting investigations, and asking more questions – like true scientists! The meaningful, hands-on activities with student processing of ideas in the ESP science units allow all students to use their hard-wired and learned processes to build meaning.

The ESP curriculum emphasizes the following inquiry, process and STEM skills:

- Classifying
- Communicating
- Comparing and contrasting
- Creating models
- Gathering and organizing data
- Generalizing
- Identifying variables
- Inferring
- Interpreting data
- Making decisions
- Manipulating materials
- Measuring
- Observing
- Predicting

New York State Learning Standards Correlation

The goal of the ESP is to support teachers in meeting the educational goals established by the New York State Department of Education. The educators at the ESP are in the process of realigning curriculum to the new New York State Science Learning Standards. Additional emphasis on STEM activities is being added to existing resource units, and new units are being developed. School districts contracting with the ESP can rest assured that we will remain at the forefront of any changes that occur during this transition period. Correlations are also made, when appropriate, to the Common Core State Standards in English Language Arts and Literacy, and Mathematics.



Overview

Teacher Support

In addition to providing the resources for the classroom, the professional development and on-going support provided by the ESP is a vital part of the program. Support for teachers is also provided through our website (www.espsciencetime.org), online streaming videos, the ESP Facebook page, the ESP listserv, and over the phone. Our staff will also accommodate your school's professional development needs in the area of science instruction.

The Elementary Science Program is committed to help teachers and students engage in science instruction. The curriculum and materials provided through our program allow students to perform activities and pursue ideas and investigations on their own initiative while the teacher provides individual attention and direction.

Units of study are designed by administrators and teachers at the ESP who are certified and experienced in teaching science to students at a variety of grade levels. It is an integrated curriculum that incorporates New York State Science core content with English language arts, math, social studies, and fine arts core content.

Science kits are manufactured and refurbished at the ESP. Districts determine the units they want to use based on their curriculum design.

All units include the hands-on materials for an entire class of students.

- Regular kits are for **thirty (30)** students.
- Mini kits are for **fifteen (15)** students

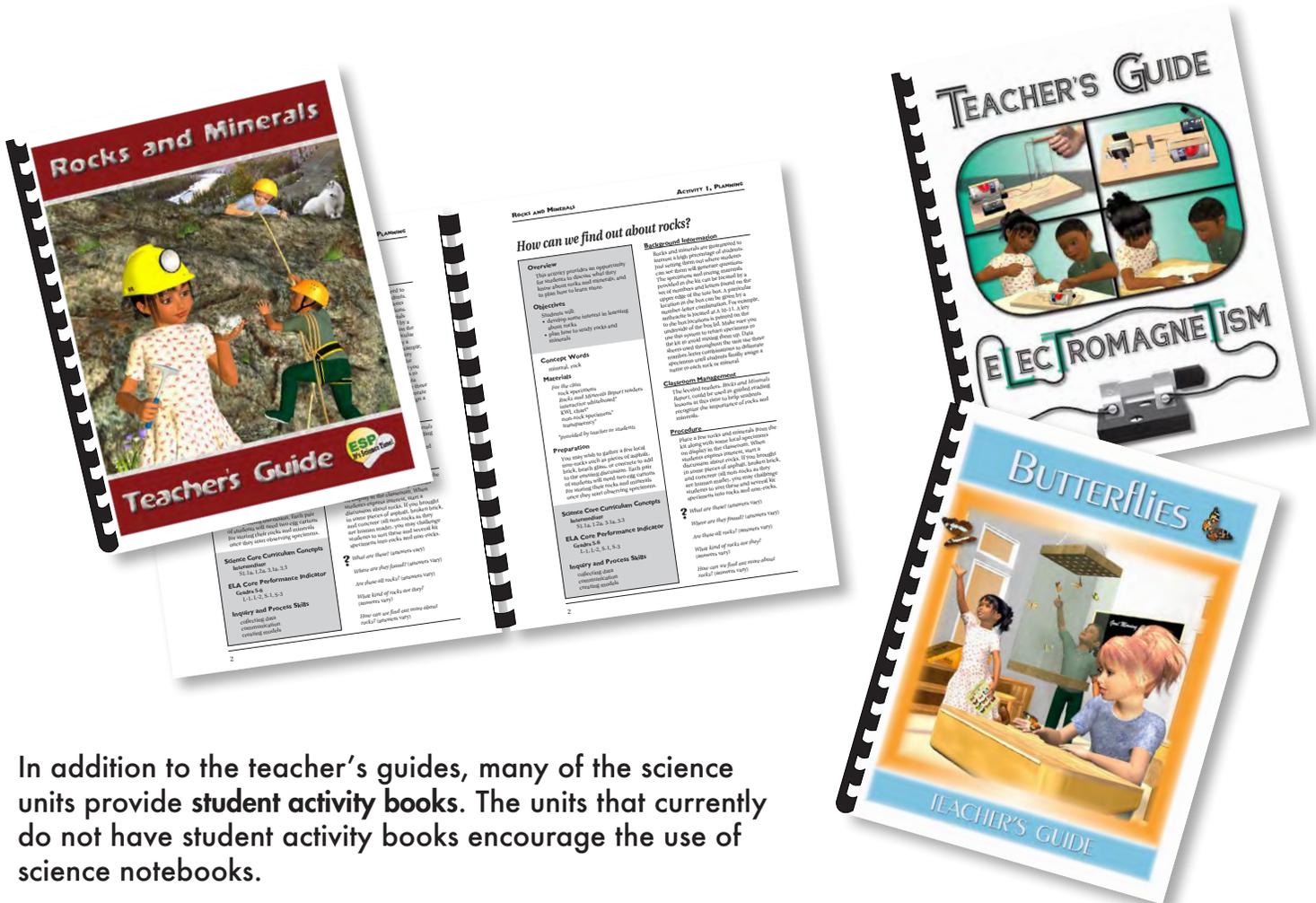


Overview

The teacher's guide in each unit provides a wealth of information and guidance for the teacher.

These guides include...

- background information for the teacher on the topic of study
- materials lists
- guidance for preparation of each lesson
- classroom management ideas
- detailed procedures for each lesson
- suggestions for assessment, including when to administer the assessments provided with the unit
- indicators of suggested times to use the leveled readers throughout the unit
- extension ideas for your classroom
- correlations to the New York State Science Learning Standards.

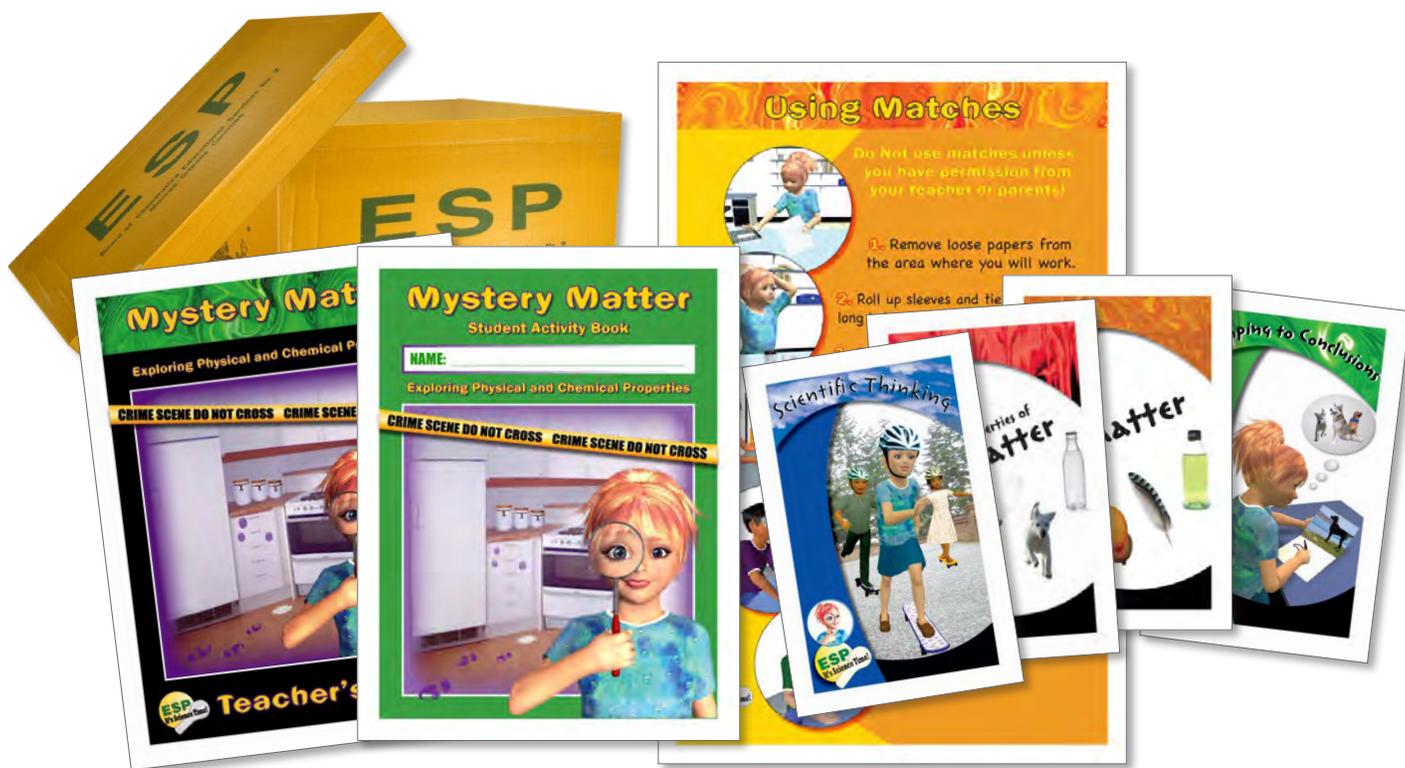


In addition to the teacher's guides, many of the science units provide student activity books. The units that currently do not have student activity books encourage the use of science notebooks.

Overview

Literacy Support

The revised ESP units include narrative and expository text, in the form of leveled readers, to support and add depth to instruction. These readers are designed for use in guided reading sessions apart from science time. Using the expertise of Monroe 2–Orleans BOCES reading specialists, each reader has been correlated to Fountas and Pinnell, Lexile and DRA reading levels. Each title is available at grade level and at one grade level above and one grade level below the grade for which the unit was designed. Readers having the same title provide exactly the same science content, despite requiring different levels of reading skill. A sample of the three readers for one of the titles is provided in the kit box. The entire set of readers for a unit can be printed from the password protected portion of the ESP website. Hard copies may also be ordered from the ESP.



Our units have a wealth of resources online at www.espsciencetime.org. These resources include assessments for the unit, leveled readers, interactive whiteboard activities, photos, journal pages, and a variety of other resources that may pertain to a particular unit of study. These resources seek to make teaching and learning science with the ESP units easier and more fun for you and your students.

Overview

Cast of Characters

The revised units have bold, new computer rendered graphics that feature a multicultural cast of six children who model curiosity and excitement about STEM. Students involved in the program will follow these characters through a variety of investigations.

Kindergarteners through third graders will become acquainted with Joe Jemison, Shawna Jackson, and Jake Golden. Fourth through sixth graders will get to know Sasha Brown, Darrell Sand and Maria Lopez. Students will also see the kids' dogs Sparky and Volt from time to time.

Grades 4-6



Grades K-3



Kit Refill Packages

Regular Kits (30 Students)

The following refill packages may be purchased to replenish supplies that will be consumed each time the unit is used. Only minimum purchase orders of \$25.00 will be accepted.

Astronomy (RPA003) \$114.00

- 5 Tongue depressors
- 10 Red latex balloons
- 15 Paper clips
- 1 Thread bobbin
- 8 Printed protractors
- 1 Masking tape
- 5 Straws
- 10 Toothpicks
- 5 Styrofoam balls
- 24 Thumb tacks
- 15 Graph paper
- 20 "D" batteries
- 4 Modeling clay
- 1 MSDS information packet
- 1 Unit Password



Classroom Plants (RPC010) \$114.00

- 1 Package marigold seeds
- 1 Package mung bean seeds
- 1 Package petunia seeds
- 1 Package nasturtium seeds
- 1 Package impatiens seeds
- 1 Package coleus seeds
- 1 Package rye grass seeds
- 50 Tumblers
- 30 Petri dishes
- 13 Styrofoam trays
- 15 Plastic bags
- 10 Twist ties
- 1 Bag pebbles
- 1 Bag gravel
- 2 8 quarts potting mix
- 1 Deli container
- 1 Roll tape
- 1 Dowel
- 1 Wax pencil
- 8 Pipettes
- 8 Plastic spoons
- 1 MSDS information packet
- 1 Unit Password



Buoyancy (RPB035) \$102.50

- 4 Packages modeling clay
- 1 Roll aluminum foil
- 4 Wax pencils
- 1 Bag table salt
- 1 MSDS information packet
- 3 Plastic cups
- 7 Styrofoam cups
- 1 Package paper towels
- 1 Unit Password



Butterflies (RPB040) \$105.50

- 2 Dropper bottles (for sugar water)
- 12 Sponge feeder stations
- 1 Piece nylon mesh
- 30 Culture vessels with lids
- 30 Filter papers
- 12 Paper fasteners
- 1 MSDS information packet
- 1 Unit Password

Living materials shipped separately: (BURLMRF) . . \$77.50*

- 1 Container 30 butterfly larvae
- 1 Culture medium

Crayfish (RPC020) \$78.50

- 1 Bouillon cube
- 1 Bag table salt
- 2 Vials sand
- 1 Dropper bottle food coloring
- 1 MSDS information packet
- 1 Unit Password



Living materials shipped separately: (CRRLMRF) . . \$24.50*

- 1 Culture of 12 live crayfish

Kit Refill Packages

Regular Kits (30 Students) cont.

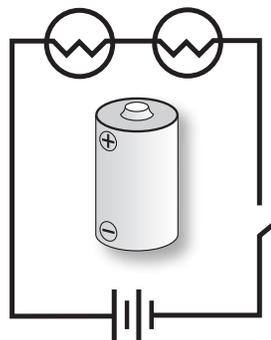
Earthworms (RPE005) \$114.00

- 1 Earthworm forestry picture
- 6 Attitude surveys
- 1 2ml Clear plastic 18x18x42
- 2 4x8 ziplock bags
- 8 Sheets black construction paper
- 4 Latex gloves (non-latex available upon request)
- 1 Glue stick
- 2 Magnifiers
- 1 2 quart bag potting mix
- 1 Plastic spoon
- 1 Roll masking tape
- 1 Package paper towels
- 1 MSDS information packet
- 1 Unit Password

Living materials shipped separately: (WORMEAR) . \$20.25*
 250 Live earthworms

Electrical Circuits (RPE015) \$186.50

- 50 #40 bulbs
- 25 #41 bulbs
- 72 "D" batteries
- 1 Spool nichrome wire
- 20 Battery holders
- 1 Spool bare copper wire
- 10 Clear plastic containers
- 5 Circuit folders
- 2 Switches
- 1 Screwdriver
- 1 Roll aluminum foil
- 20 Fahnestock clips
- 1 Bag citric acid
- 1 Bag salt
- 1 Bag sugar
- 1 Bag baking soda
- 1 Pad steel wool
- 4 Large paper clips
- 30 Small paper clips
- 15 plastic bags
- 1 Red LED light
- 10 Engineering Design Portfolios
- 1 MSDS information packet
- 1 Unit Password



Electromagnetism (RPE020) \$324.00

- 1 Spool #26 plastic coated wire
- 96 "D" cells
- 30 Large project boards
- 15 Small project boards
- 5 Compasses
- 10 Ceramic labeled bar magnets
- 20 Rubberized magnets
- 4 10d steel nails
- 4 10d aluminum nails
- 35 4d common nails
- 100 #82 rubber bands
- 15 #30 rubber bands
- 250 Fahnestock clips
- 15 Dowels
- 30 Large wood screws
- 100 Paper clips
- 1 Roll masking tape
- 100 Small screws
- 2 Small motors
- 2 Bulb holders
- 15 Medicine cups
- 4 #48 bulbs
- 1 Spool thread
- 1 Spool #20 bare copper wire
- 8 Strips emery cloth (1x4)
- 15 Large corks with one hole
- 15 Buzzer arms
- 45 Metal angles
- 30 Switches
- 15 Washers
- 30 Metal brushes
- 1 Unit Password



* Shipping costs included in price.

Kit Refill Packages

Regular Kits (30 Students) cont.

Interactions (RPI015).....\$165.00

- 4 Dropper bottles BTB
- 1 Dropper bottle vinegar
- 1 Bag baking soda
- 20 Tumblers
- 10 Rubberized magnets
- 15 Pieces sand paper squares
- 15 Pieces paper (index stock) squares
- 15 Pieces clear plastic squares
- 15 Pieces copper foil squares
- 15 Pieces brass foil squares
- 15 Pieces aluminum foil squares
- 8 Sponge squares
- 15 Pipe cleaners
- 15 BB's
- 1 Package 30 sheets Ozalid paper
- 1 Large bag containing:
 - 15 Bags each containing:
 - 1 Rubber band
 - 1 "D" cell
 - 1 Paper clip
 - 1 Candy ball
 - 1 Small bar magnet
 - 1 #41 bulb
 - 1 15 cm piece copper wire
- 30 Straws
- 1 Jar Kool Aid
- 2 Bottles lemon juice
- 30 Pipe cleaners
- 30 Empty tea bags
- 8 Paper clips
- 8 Tongue depressors
- 5 Plastic trays
- 8 Steel nails
- 1 MSDS information packet
- 1 Unit Password



Magnets (RPM005).....\$186.50

- 5 Bags containing:
 - 1 pine piece 1 brass piece
 - 1 steel piece 1 aluminum piece
 - 1 plastic piece 1 sponge piece
 - 1 tongue depressor
- 5 Magnetite rocks
- 5 Anthracite rocks
- 28 Rubber magnets
- 5 Refrigerator magnets
- 2 Labeled bar magnets
- 2 Button/disk magnets
- 8 Small iron/bar magnets
- 5 Magnetic Field Viewers
- 1 Roll masking tape
- 10 Zip lock bags
- 5 Compasses
- 200 #1 paper clips
- 1 Spool thread
- 1 Container iron filings
- 15 Plastic cups
- 1 Ball of clay
- 2 Overhead projector compasses
- 15 Dowels
- 9 Wooden wheels
- 30 8d common nails
- 15 Tongue depressors
- 5 Plastic observation boxes w/lids
- 5 Plastic trays
- 15 Paper plates
- 4 Styrofoam trays
- 1 MSDS Information Packet
- 1 Unit Password

Measuring (RPM020).....\$119.00

- 30 Styrofoam cups
- 1 Set colored rubber bands
- 1 Box paper clips
- 4 Thermometers
- 1 Unit Password



Kit Refill Packages

Regular Kits (30 Students) cont.

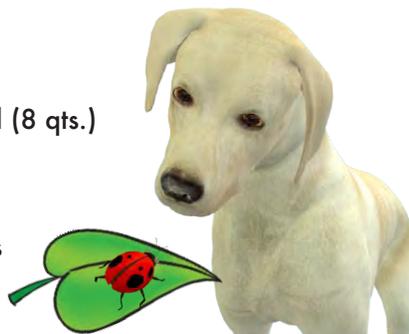
Mystery Matter (RPM050) \$159.50

- 4 Packages of paper souffle cups
- 4 Work trays
- 1 Bag baking soda
- 1 Bag table salt
- 1 Bag sugar
- 1 Bag Plaster of Paris
- 1 Bag mystery mix A
- 1 Bag mystery mix B
- 1 Bag mystery mix C
- 1 Bag of unknown substance for Performance Test Only
- 1 Bag citric acid
- 1 Bottle iodine
- 1 Spool thread
- 5 Clothespins
- 1 Bottle BTB
- 1 Bag starch
- 1 Bottle vinegar
- 1 Box of 750 toothpicks
- 15 Candles
- 1 Roll aluminum foil
- 15 Candle drip pans
- 15 Medicine cups
- 5 Microscope standard slides
- 1 MSDS information packet
- 1 Unit Password



Plant Responses (RPP015) \$132.50

- 1 Package pole bean seeds
- 1 Package mung bean seeds
- 1 Package radish seeds
- 1 Package tomato seeds
- 1 Package bush bean seeds
- 30 Petri dishes
- 1 Package paper towels
- 5 Medicine cups
- 60 Black bags
- 1 Bag table salt
- 1 Vial fertilizer
- 2 Bags potting soil (8 qts.)
- 6 Wax pencils
- 15 Planter sticks
- 15 Clear vials
- 15 Large clear cups



Plant Responses (Continued)

- 30 Plastic bags
- 45 Small clear cups
- 1 Package oat seeds (for Performance Test only)
- 1 MSDS information packet
- 1 Unit Password

Pollination (RPP020) \$153.00

- 1 Package Fast Plant Seeds
- 15 Quads
- 1 Roll aluminum foil
- 60 Wicks
- 180 Fertilizer pellets
- 15 Plant labels
- 1 Package 60 bees
- 15 Filter papers
- 1 Water mat
- 2 Quarts potting soil
- 1 MSDS information packet
- 1 Unit Password



Properties (RPP040) \$143.00

- 10 Plastic cups
- 1 Dropper bottle concentrated bubble solution
- 10 #7 balloons
- 5 Sets Tangram pieces with stencils
- 2 Alka Seltzer tablets
- 5 Large balloons (#12)
- 30 Brown paper bags
- 1 Roll wax paper
- 80 Medicine cups
- 30 Plastic insulated wires
- 1 Dropper bottle liquid starch
- 1 Dropper bottle vinegar
- 1 Dropper bottle oil
- 1 Box tooth picks
- 2 Wax pencils
- 5 Feathers
- 8 Plastic trays
- 1 MSDS information packet
- 1 Unit Password

Kit Refill Packages

Regular Kits (30 Students) cont.

Rocketry (RPR005) \$361.00

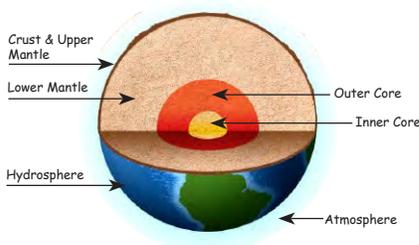
- 30 Engines
- 1 Can baby powder
- 30 Balloons
- 4 "AA" Alkaline batteries (new style) or one 6 volt battery (old style)
- 1 Roll flame proof crepe paper
- 10 Dowels
- 6 Pieces emery cloth
- 1 Spool braided nylon fishing line
- 1 Roll masking tape
- 30 Pieces oak tag
- 10 Printed protractors
- 10 Tangent charts
- 1 Spool thread
- 10 Tri-wall bases
- 1 Package of wadding
- 1 Package extra igniter wire
- 30 Rocket kits
- 1 MSDS information packet
- 1 Unit Password

Please see KIT PARTS section for engines, wadding, igniter wire and rockets.

Rocks and Minerals (RPR010) .. \$105.00

- 1 bag of baking soda
- 5 8d Common nails
- 5 Streak plates
- 10 Clear plastic medicine cups
- 5 "D" cells
- 5 #48 bulbs
- 5 Pieces of copper wire
- 1 *Rocks and Minerals and How We Use Them* poster
- 1 *Rocks and Minerals* Answer Key (11x17 blue)
- 1 MSDS information packet
- 1 Unit Password

Please see KIT PARTS section for individual Rocks and Minerals specimens.



Senses (RPS005) \$186.50

- 3 Pairs of glasses
- 6 Red lenses
- 6 Yellow lenses
- 6 Blue lenses
- 6 Green lenses
- 1 Metal mirror
- 2 Styrofoam balls
- 1 Skein yarn
- 30 Ziplock bags
- 20 Jingle bells
- 20 #30 rubber bands
- 10 #10 rubber bands
- 10 #33 rubber bands
- 15 #82 rubber bands
- 110 Pipe cleaners
- 10 Film canister lids with holes
- 1 Piece netting
- 1 Package paper towels
- 40 Cotton balls
- 1 Roll adding machine tape
- 1 Bag navy beans
- 1 Bag gravel
- 15 Marbles
- 5 Bottles of misc. flavoring
- 1 Dropper bottle blue food coloring
- 1 Dropper bottle red food coloring
- 1 Dropper bottle yellow food coloring
- 4 Packages Jell-O
- 120 Souffle cups
- 2 Plastic knives
- 5 Plastic spoons
- 8 Buttons
- 4 Sponge squares
- 4 Fake fur pieces
- 4 Aluminum foil squares
- 8 Corks
- 4 Sandpaper squares
- 30 Index cards
- 6 Paper bags
- 5 Balloons
- 5 Wood blocks



Kit Refill Packages

Regular Kits (30 Students) cont.

Senses (Continued)

- 5 Clothespins
- 5 Shells
- 1 Box macaroni
- 1 Roll masking tape
- 30 Styrofoam cups
- 32 Film canisters with lids
- 80 Paper plates
- 6 Styrofoam balls
- 25 Tumblers
- 25 Lids for tumblers
- 15 Fountain cups
- 1 Rainbow Template
- 30 Elastic straps w/barbs
- 1 Bag colored pieces of yarn
- 1 MSDS information packet
- 1 Unit Password

Sky Calendar (RPS013) \$159.50

- 24 "D" cells
- 24 Chalk
- 15 8½ x 11 graph paper 1/4"
- 8 Tongue depressors
- 1 Light bulb
- 1 MSDS information packet
- 1 Unit Password



Structures (RPS040) \$137.50

- 750 Straws
- 4 Packages clay
- 1500 Paper clips
- 1000 Index cards
- 1 Roll masking tape
- 1 Plastic knife
- 20 Plastic containers
- 5 Washers
- 1 Spool braided nylon fish line
- 4 Pizza tables
- 1 Bag gravel
- 1 Bag potting soil
- 45 Plastic stirrers
- 15 Medicine cups
- 15 Craft Sticks
- 1 Large paper clip
- 1 Tube of petroleum jelly
- 5 Plastic spoons
- 1 Bag Plaster of Paris
- 3 Sheets of Concrete Slab Molds
- 3 Sheets of Reinforced Concrete Slab Molds
- 1 MSDS information packet
- 1 Unit Password

Waterplay (RPW005) \$84.00

- 60 Straws
- 1 Roll aluminum foil
- 4 Balloons
- 2 Small sized balls
- 2 Middle sized balls
- 1 Dropper bottle red food coloring
- 1 Dropper bottle blue food coloring
- 1 Dropper bottle green food coloring
- 1 Dropper bottle yellow food coloring
- 12 Paper cups
- 1 Bottle soap bubble solution
- 6 Pieces plastic coated wire
- 1 Spool nylon braided fishing line
- 1 MSDS information packet
- 1 Unit Password

Mini Kit Refill Packages

Mini Kits (15 Students)

Astronomy (RPA103)\$93.00

- 4 Tongue depressors
- 5 Red latex balloons
- 8 Paper clips
- 1 Thread bobbin
- 2 Printed protractors
- 1 Masking tape
- 5 Straws
- 8 Toothpicks
- 4 Styrofoam balls
- 12 Thumb tacks
- 8 Graph paper
- 6 "D" batteries
- 4 Modeling clay
- 1 MSDS Information Packet
- 1 Unit Password



Crayfish (RPC120) \$68.00

- 1 Bouillon cube
- 1 Bag table salt
- 2 Vials sand
- 1 Dropper bottle food coloring
- 1 MSDS information packet
- 1 Unit Password

Living materials to be shipped separately:

- 1 Culture of 6 live crayfish (CRMLMRF)\$15.00*

Earthworms (RPE105).....\$114.00

Mini and regular refill package contents are the same.

Living materials shipped separately: (WORMEAR) . \$20.25*
250 Live earthworms

(Live materials are not shipped Dec. - Feb.)

Buoyancy (RPB135) \$83.00

- 2 Packages modeling clay
- 1 Roll aluminum foil
- 2 Wax pencils
- 3 Plastic cups
- 4 Styrofoam cups
- 1 Package paper towels
- 1 Bag table salt
- 1 MSDS information packet
- 1 Unit Password

Butterflies (RPB140)\$105.50

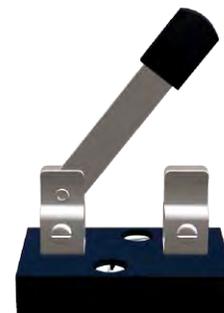
Mini and regular refill package contents are the same.

Classroom Plants (RPC110)\$114.00

Mini and regular refill package contents are the same.

Electrical Circuits (RPE115).....\$131.50

- 25 #40 bulbs
- 12 #41 bulbs
- 48 "D" batteries
- 1 Spool nichrome wire
- 10 Battery holders
- 1 Bag baking soda
- 1 Bag sugar
- 1 Bag citric acid
- 15 Fahnestock clips
- 1 Roll aluminum foil
- 1 Screwdriver
- 1 Switch
- 1 Spool bare copper wire
- 1 Bag salt
- 1 Pad steel wool
- 5 Plastic containers
- 3 Circuit folders
- 1 MSDS information packet
- 5 Engineering Design Portfolios
- 8 Plastic bags
- 4 Large paper clips
- 16 Small paper clips
- 1 Red LED light
- 1 Unit Password



Mini Kit Refill Packages

Mini Kits (15 Students) cont.

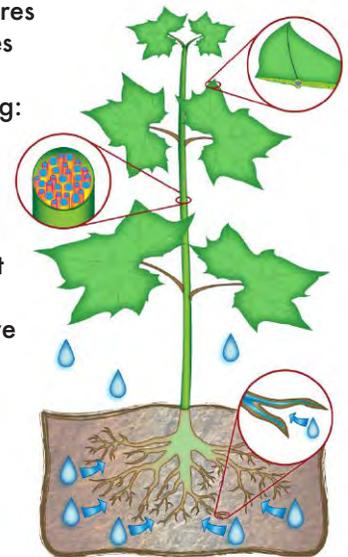
Electromagnetism (RPE120)\$213.50

- 1 Spool #26 plastic coated wire
- 48 "D" cells
- 16 Large project boards
- 8 Small project boards
- 16 Metal brushes
- 6 Ceramic labeled bar magnets
- 10 Rubberized magnets
- 50 #82 rubber bands
- 125 Fahnestock clips
- 15 Large wood screws
- 50 Paper clips
- 100 Small screws
- 24 Metal angles
- 15 Switches
- 8 Washers
- 1 Spool #20 bare copper wire
- 4 10d steel nails
- 4 10d aluminum nails
- 16 4d common nails
- 2 Compasses
- 8 #30 rubber bands
- 8 Dowels
- 1 Spool thread
- 1 Roll masking tape
- 8 Large corks with one hole
- 8 Buzzer arms
- 4 Strips emery cloth (1x4)
- 1 Small motor
- 1 Bulb holder
- 8 Medicine cups
- 4 #48 bulbs
- 1 Unit Password



Interactions (RPI115).....\$125.00

- 8 Pieces aluminum foil squares
- 1 Dropper bottle vinegar
- 1 Package 15 sheets Ozalid paper
- 10 Tumblers
- 5 Rubberized magnets
- 8 Pieces sand paper squares
- 8 Pieces paper (index stock) squares
- 8 Pieces clear plastic squares
- 8 Pieces copper foil squares
- 8 Pieces brass foil squares
- 1 Large bag containing:
 - 8 Bags each containing:
 - 1 Rubber band
 - 1 "D" cell
 - 1 Paper clip
 - 1 Candy ball
 - 1 Small bar magnet
 - 1 #41 bulb
 - 1 15 cm copper wire
- 15 Straws
- 1 Bag Kool Aid
- 1 Bottle lemon juice
- 15 Pipe cleaners - 4"
- 15 Empty tea bags
- 4 Tongue depressors
- 4 Steel nails
- 8 BB's
- 8 Pipe cleaners - 2"
- 4 Sponge squares
- 4 Paper clips
- 3 Plastic trays
- 1 Bag baking soda
- 4 Dropper bottles BTB
- 1 MSDS information packet
- 1 Unit Password



Mini Kit Refill Packages

Mini Kits (15 Students) cont.

Magnets (RPM005) \$186.50

Mini and regular refill package contents are the same.

Measuring (RPM120) \$87.00

- 15 Styrofoam cups
- 1 Set colored rubber bands
- 1 Box paper clips
- 2 Thermometers
- 1 Unit Password

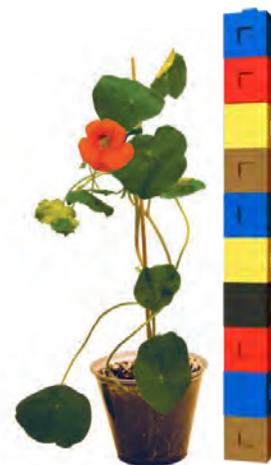
Mystery Matter (RPM150) \$123.00

- 2 Packages of paper souffle cups (¾ oz.)
- 2 Work trays
- 1 Roll aluminum foil
- 1 Bag Plaster of Paris
- 1 Bag corn starch
- 1 Bag citric acid
- 1 Bag mystery mix A
- 1 Bag mystery mix B
- 1 Bag mystery mix C
- 400 Toothpicks
- 5 Microscope standard slides
- 1 Bag baking soda
- 1 Bag table salt
- 1 Bag sugar
- 1 Bottle BTB
- 1 Bottle iodine
- 1 Bottle vinegar
- 8 Medicine cups
- 1 Spool thread
- 5 Clothespins
- 8 Drip pans for candles
- 8 Candles
- 1 Bag unknown substance for Performance Test Only
- 1 MSDS information packet
- 1 Unit Password



Plant Responses (RPP115) \$99.50

- 1 Package pole bean seeds
- 1 Package mung bean seeds
- 1 Package radish seeds
- 1 Package tomato seeds
- 1 Package bush bean seeds
- 1 Package paper towels
- 30 Black bags
- 15 Petri dishes
- 15 Plastic bags (4x2x8)
- 24 Small clear cups
- 8 Planter sticks
- 6 Wax pencils
- 3 Medicine cups
- 8 Clear vials
- 1 Bag potting soil
- 1 Bag table salt
- 1 Vial fertilizer
- 8 Large clear cups
- 1 Package oat seeds (for Performance Test)
- 1 MSDS information packet
- 1 Unit Password



Pollination (RPP120) \$153.00

Mini and regular refill package contents are the same.

Properties (RPP140) \$112.00

- 5 #7 balloons
- 1 Roll wax paper
- 3 Sets Tangram pieces with stencils
- 1 Alka Seltzer tablet
- 2 Dropper bottles concentrated bubble solution
- 3 #12 Large balloons
- 5 Feathers
- 10 Medicine cups
- 1 Box toothpicks
- 15 Plastic insulated wires
- 1 Dropper bottle cooking oil
- 1 Dropper bottle liquid starch
- 1 Dropper bottle vinegar
- 15 Brown paper bags
- 5 Plastic cups
- 4 Plastic trays
- 1 Wax pencil
- 1 MSDS information packet
- 1 Unit Password



Kit Refill Packages

Mini Kits (15 Students) cont.

Rocketry (RPR105).....\$233.00

- 15 Engines
- 1 Can baby powder
- 15 Balloons
- 1 Roll flame proof crepe paper
- 3 Pieces emery cloth
- 1 Spool braided nylon fishing line
- 1 Roll masking tape
- 15 Pieces oak tag
- 5 Printed protractors
- 5 Tangent charts
- 4 "AA" Alkaline batteries (new style)
or one 6 volt battery (old style)
- 1 Package of wadding
- 1 Package of igniter wires
- 5 Dowels
- 1 Spool thread
- 5 Tri wall bases
- 15 Rocket kits
- 1 MSDS information packet
- 1 Unit Password

Please see KIT PARTS section for ordering only rockets, engines, wadding and igniter wire.

Rocks and Minerals (RPR110) . . . \$93.00

- 1 bag of baking soda
- 5 8d Common nails
- 5 Streak plates
- 5 Clear plastic medicine cups
- 5 "D" cells
- 5 #48 bulbs
- 5 Pieces of copper wire
- 1 *Rocks and Minerals and How We Use Them* Poster
- 1 MSDS information packet
- 1 *Rocks and Minerals* Answer Key (11x17)
- 1 Unit Password

Please see KIT PARTS section for individual Rocks and Minerals specimens.

Senses (RPS105)\$186.50

Mini and regular refill package contents are the same.

Sky Calendar (RPS113)\$129.50

- 12 "D" cells
- 10 8½ x 11 graph paper 1/4"
- 8 Tongue depressors
- 8 Chalk
- 1 Light bulb
- 1 MSDS information packet
- 1 Unit Password

Structures (RPS140)\$137.50

Mini and regular refill package contents are the same.

Waterplay (RPW105).....\$84.00

Mini and regular refill package contents are the same.



Kit Parts

Part Name	Part Number	Price	Quantity	Total
Airpump with airstone & 6' tubing	AIRPUMP\$20.00/each	_____	_____
Airstone	AIRSTON	1.50/each	_____	_____
Aluminum foil	ALUFOIL	5.00/each	_____	_____
Bags				
Black paper (<i>Plant Responses</i>)	BAGPBLK	1.25/each	_____	_____
Brown paper (<i>Properties</i>)	BAGP5LB	0.25/each	_____	_____
Ziplock bags				
3" x 4" x 2 ml	BAGZ3X4	0.25/each	_____	_____
4" x 8" x 2 ml	BAGZ4X8	0.25/each	_____	_____
4" x 4" x 2 ml	BAGZ4X4	0.25/each	_____	_____
6" x 8" x 2 ml	BAGZ6X8	0.50/each	_____	_____
10" x 12" x 2 ml	BGZ1012	1.00/each	_____	_____
4" x 6" 2 ml	BAGZ4X6	0.50/each	_____	_____
Balances				
Balance, double pan	LGEBAL	25.00/each	_____	_____
Balance, small wooden	SMALBAL	6.00/each	_____	_____
Batteries				
"D" Cells, box of 24	BATT00D	18.50/box	_____	_____
6 volt for Rocketry	BATT006	20.00/battery	_____	_____
Bubble blimp maker (<i>Waterplay</i>)	BUBBLMA	7.50/each	_____	_____
Bubble solution concentrate (<i>Waterplay</i>)				
Quart - makes 2.6 gallons	SOAPBQT	14.00/qt.	_____	_____
Gallon - makes 10.4 gallons	SOAPGAL	40.00/gal.	_____	_____
Bulb holders (<i>Electrical Circuits</i>)	BULBHOL	43.00/pkg. of 30	_____	_____
Bulbs				
#40 flashlight (<i>Electrical Circuits</i>)	BULB/40	1.50/each	_____	_____
#41 flashlight (<i>Electrical Circuits</i>)	BULB/41	1.50/each	_____	_____
#48 flashlight (<i>Electromagnetism</i>)	BULB/48	1.50/each	_____	_____
18 watt fluorescent bulb (plant growth light)	BULB018	30.00/each	_____	_____
Buzzer arms	BUZZARM	1.50/each	_____	_____
Candles , 6 hour	CANDLES	1.25/each	_____	_____
Candle drip pan	CANDPAN	0.50/each	_____	_____
Ceramic weights (<i>Buoyancy</i>)	BAGWGHT	100.00/bag of 540	_____	_____

Subtotal \$ _____

Photocopy the completed form and submit, or find additional forms at www.espsciencetime.org.

Transfer this Subtotal to page 26.



Kit Parts

Part Name	Part Number	Price	Quantity	Total
Chemicals*				
Bromothymol blue.	BTB-102.	\$12.00/qt. or 35.00/gal.	_____	_____
Iodine solution for starch test	IODINEO.	25.00/qt. or 100.00/gal.	_____	_____
Citric Acid	CITRICA	10.00/lb.	_____	_____
<i>*MSDS information included with shipment</i>				
Compass (Electromagnetism, Magnets)				
Transparent for overhead (Electromagnetism, Magnets)	COMPASS	5.00/each	_____	_____
(Electromagnetism, Magnets)	MAGCOMP.	20.00/each	_____	_____
Containers				
Clear plastic boxes (Crayfish)	CLPBX82	6.00/each	_____	_____
Containers, clear plastic 1.5 liter.	AQU2LIT	5.00/each	_____	_____
Containers, clear plastic 2.5 liter (Buoyancy, Properties)	AQU/GAL	8.00/each	_____	_____
Containers, clear plastic 4 liter (Pond Life, Butterflies)	AQU/TER.	15.00/each	_____	_____
Containers, 250 ml (Measuring).	BEAK250	3.25/each	_____	_____
Containers, 1000 ml (Measuring)	BEAK1000	7.00/each	_____	_____
Corks				
1 1/2" x 1 1/16" drilled (Electromagnetism)	CORKCYL.	0.75/each	_____	_____
7/8" x 7/8" drilled (Sound)	CORK78D	0.75/each	_____	_____
7/8" x 7/8" plain cork (Sound).	CORK78P.	0.75/each	_____	_____
7/8" x 7/8" 2 hole cork	CORKD2X	0.75/each	_____	_____
1 1/2" x 1 1/4" drilled	CORKENF	1.00/each	_____	_____
Cube-O-Grams (Measuring)	CUBEOGR	45.00/M	_____	_____
Cups				
Clear plastic 4 oz.	CONCP04	5.00/pkg. of 30	_____	_____
Clear plastic 9 oz.	CONCP09	9.00/pkg. of 50	_____	_____
Styrofoam 8 oz.	CUPFOAM	7.00/pkg. of 100	_____	_____
Paper souffle cups 3/4 oz.	CUPS3/4	7.00/pkg. of 250	_____	_____
Paper souffle cups 2 oz.	CUPS2OZ	5.00/pkg. of 100	_____	_____
Paper 8 oz.	CUP0008	9.00/pkg. of 100	_____	_____
Display Pieces – Metal, wood, plastic, (Properties) 2" x 6" x 1/8"				
Aluminum.	ALUMDIS	3.00/each	_____	_____
Balsa	BALDISP	2.00/each	_____	_____
Brass	BRASDIS	15.00/each	_____	_____
Clear acrylic	CLPLDIS.	5.25/each	_____	_____
Oak	OAKDISP	2.50/each	_____	_____
Opaque acrylic.	OPACDIS	2.50/each	_____	_____
Pine	PINDISP	2.00/each	_____	_____
Steel	STELDIS.	5.00/each	_____	_____
Walnut	WALDISP	3.00/each	_____	_____

Subtotal \$ _____



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Kit Parts

Part Name	Part Number	Price	Quantity	Total
Dowels				
Wooden 3/4" x 36" (Sound)	DOWL3/4	\$5.00/each	_____	_____
Wooden 1/8" x 12" planter sticks.	DOWL1/8	30.00/60	_____	_____
Wooden 1/4" x 18" (Sound)	DOWL1/4	8.00/15	_____	_____
Wooden 1/8" x 4 1/2" (Electromagnetism)	DOWEL1/8	10.00/15	_____	_____
Dropper bottles-plain , 2 oz. w/ fold down spouts	DRBTL02	1.25/each	_____	_____
Dropper bottles-labeled				
BTB.	DRBTBTB	5.00/each	_____	_____
Cooking oil	DRBTOIL	5.50/each	_____	_____
Food coloring.	DRBTFCO	5.50/each	_____	_____
Iodine	DRBTIOD	5.50/each	_____	_____
Starch	DRBTSTA	5.50/each	_____	_____
Vinegar.	DRBTVIN	5.50/each	_____	_____
Water	DRBRWAT	5.50/each	_____	_____
Emery cloth , 1" x 4" (Electromagnetism)	EMERYPC	0.75/each	_____	_____
Fahnestock clips	FANCLIP	35.00/pkg. of 100	_____	_____
Feathers				
Large.	FEATHER	0.75/each	_____	_____
Duck (Properties)	FEADUCK	0.75/each	_____	_____
Files , triangular (Electromagnetism)	FILETRI	10.00/each	_____	_____
Fish line , black	FISHLIN	5.50/roll	_____	_____
Flower pots , 5"	FLWRPOT	1.00/each	_____	_____
Please specify green or white when ordering and if for Crayfish or Classroom Plants				
Food coloring , 2 oz. Dropper bottle				
Specify red, yellow, blue or green	FOODCLR	5.00/bottle	_____	_____
Funnels				
8 oz.	FUNEL08	3.50/each	_____	_____
4 oz.	FUNEL04	1.50/each	_____	_____
2 oz.	FUNEL02	2.25/each	_____	_____
Geo Blocks (Properties)	BOXGEOB	135.00/box	_____	_____
Includes one set of Problem Cards for Geo Blocks				
Geo block cards , set of 20	GEOBLCK	7.00/set	_____	_____
Geo boards (Measuring).	GEOBOAR	25.00/each	_____	_____
Glass droppers	EYEDROP	2.00/each	_____	_____
Gravel/Sand (Crayfish)	GRAVEL4	2.50/vial	_____	_____

Subtotal \$ _____

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Kit Parts

Part Name	Part Number	Price	Quantity	Total
Homosote				
2" x 4" (Electromagnetism)	BASE2X4	\$2.00/each	_____	_____
4" x 8" (Electromagnetism)	PROBDLG	3.50/each	_____	_____
Iron filings (1 lb.)	IRONFIL	20.00/each	_____	_____
Lamp base (Light)	LAMPHOL	.15.00/each	_____	_____
Lens paper for cleaning microscopes	PAPLENS	7.00/booklet	_____	_____
Light Source	LIGHTSR	8.00/each	_____	_____
Magnets				
Steel bar 2 cm (Interactions, Magnets)	MAGNETI	5.00/each	_____	_____
Rubberized	MAGNETR	2.50/each	_____	_____
Ceramic 2.75"	MAGNBAR	12.00/each	_____	_____
Ceramic 3 cm" (Magnets, Electromagnetism)	MAGSMAL	2.50/each	_____	_____
Ceramic 1" disk (Magnets)	MAGDISK	2.25/each	_____	_____
Masking tape	TAPEMAS	5.00/roll	_____	_____
Material pieces - metal, wood, plastic, 1/2" x 2" x 1/8" (Properties)				
Aluminum	PIECEAL	1.00/each	_____	_____
Balsa	PIECEBA	0.75/each	_____	_____
Brass	PIECEBR	1.50/each	_____	_____
Clear acrylic	PIECEAC	1.50/each	_____	_____
Oak	PIECEOA	0.50/each	_____	_____
Opaque acrylic	PIECEAO	2.00/each	_____	_____
Pine	PIECEPI	1.00/each	_____	_____
Steel	PIECEST	1.25/each	_____	_____
Walnut	PIECEWA	1.25/each	_____	_____
Measuring cups , 8 oz..	CUPMEAS	10.00/each	_____	_____
Medicine cup	MEDICUP	7.50/pkg. of 100	_____	_____
Metal angles (Electromagnetism)	METANGL	2.00/each	_____	_____
Metal brushes (Electromagnetism)	METLBRU	20.00/30	_____	_____
Modeling clay (Buoyancy)	MODCLAY	.75.00/box of 4 sticks	_____	_____
Nails				
4d common (Electromagnetism)	NAIL4DC	2.00/pkg. of 30	_____	_____
8d common (Meet the Creatures)	NAIL8DC	2.25/pkg. of 30	_____	_____
8d box	NAIL8DB	2.00/pkg. of 30	_____	_____
10d aluminum (Electromagnetism)	NAIL10A	5.00/pkg. of 10	_____	_____
10d common (Electromagnetism)	NAIL10D	4.50/pkg. of 30	_____	_____

Subtotal \$ _____

Transfer this Subtotal to page 26.

Kit Parts

Part Name	Part Number	Price	Quantity	Total
Pails				
5 qt. Pail	PAIL005	\$6.00/each	_____	_____
9 qt. Pail	PAIL009	12.00/each	_____	_____
Paper towels , bundle	TOWELPA	5.00/pkg.	_____	_____
Pattern blocks , inc. 26 Problem Cards (<i>Properties</i>)	PATRBLK	65.00/set of 250	_____	_____
Pattern Block Problem Cards	PATBLCD700/set of 26	_____	_____
Pencil , wax	PENCWAX	2.00/each	_____	_____
Petri dishes				
Plastic 100 x 15 mm.	PETRIDI1.75/each	_____	_____
Plastic 60 x 15 mm	DIPETRI1.75/each	_____	_____
Pin box with lid	BOXCLPL	3.00/each	_____	_____
Plant growth light	PLGROLI	45.00/each	_____	_____
Pool , plastic, gray, 29½" x 22½" x 6" (<i>Waterplay, Crayfish</i>)	POOL001	53.00/each	_____	_____
Potting Soil , small bag 8 quart	POTMIX1	15.00/bag	_____	_____
Prisms	PRISMSL	12.00/each	_____	_____
Pulleys , single	PULLEYS	12.00/each	_____	_____
Resistance board (<i>Electrical Circuits</i>).	PGBOARD	12.25/each	_____	_____
Rockets				
Package of 30 model rocket kits	ROCKETS	190.00/pkg. of 30	_____	_____
Package of 15 model rocket kits	ROCKETS	120.00/pkg. of 15	_____	_____
Rocket supplies				
Engines, A83, 3/pkg.	ENGINEER	10.00/pkg. of 3	_____	_____
Ignitors, 6/pkg.	IGNWIRE	10.00/pkg. of 6	_____	_____
Wadding	WADDING	9.00/pkg.	_____	_____
Rocks and Minerals specimens				
Anthracite	ROCANTH	1.25/each	_____	_____
Biotite	ROCBIOT	2.25/each	_____	_____
Calcite	ROCCALC	1.25/each	_____	_____
Graphite	ROCGRAP	2.25/each	_____	_____
Gray Sandstone	ROCSANG	2.25/each	_____	_____
Halite.	ROCHALI	2.50/each	_____	_____
Hematite	ROCHEMA	2.00/each	_____	_____
Kaolinite (Kaolin)	ROCKAOL	2.25/each	_____	_____
Limestone	ROCLIME	1.50/each	_____	_____

Subtotal \$ _____

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Transfer this Subtotal to page 26.

Kit Parts

Part Name	Part Number	Price	Quantity	Total
Magnetite	ROCMAGN	\$1.50/each	_____	_____
Mystery Rock (Brown Calcite)	ROCBRCA	1.50/each	_____	_____
Mystery Rock alternate (Serpentine Marble)	ROCSERP	1.25/each	_____	_____
Obsidian	ROCOBSI	2.25/each	_____	_____
Pink Feldspar	ROCFELP	1.50/each	_____	_____
Pink Marble.	ROCMARP	1.75/each	_____	_____
Pink Sandstone	ROCSANP	1.50/each	_____	_____
Pumice	ROCPUMI	2.00/each	_____	_____
Quartz	ROCQUAR	2.25/each	_____	_____
Shale	ROCSHAL	1.25/each	_____	_____
Slate	ROCSLAT	1.50/each	_____	_____
Talc.	ROCTALC	1.50/each	_____	_____
White Feldspar	ROCFELW	2.00/each	_____	_____
White Marble.	ROCMARW	1.50/each	_____	_____
Rubberbands				
#18 rubberbands	RUBAN18	2.00/pkg. of 100	_____	_____
#33 rubberbands	RUBAN33	5.00/pkg. of 100	_____	_____
#64 rubberbands	RUBAN64	6.00/pkg. of 100	_____	_____
#82 rubberbands	RUBAN82	8.00/pkg. of 100	_____	_____
Assorted rubberbands, colored in pin box	BXCLRB	5.00/each	_____	_____
Ruler				
6" (15 cm)	RULER06	3.00/each	_____	_____
12" (30.4 cm)	RULER12	2.25/each	_____	_____
Screwdrivers				
4½" screwdriver (Electrical Circuits)	SCRWDRV	5.00/each	_____	_____
7" screwdriver (Electromagnetism).	SCRWDR7	7.00/each	_____	_____
Seeds				
Bush beans	PKGWAXB	1.50/pkg. of 75	_____	_____
Coleus	SEEDCOL	2.00/pkg.	_____	_____
Corn	PKGCORN	1.50/pkg. of 75	_____	_____
Impatiens	SEEDIMP	2.00/pkg.	_____	_____
Lima beans	PKGLIMA	2.00/pkg. of 75	_____	_____
Marigold	SEEDMAR	2.00/pkg. of 200	_____	_____
Mung beans	SEEDMGB	2.00/pkg. of 1300	_____	_____
Mustard	PKGMUST	2.00/pkg. of 75	_____	_____
Nasturtium	SEEDNAS	2.00/pkg.	_____	_____
Oats	PK300OA	2.00/pkg. of 300	_____	_____
Pea.	PKGWPEA	2.00/pkg. of 75	_____	_____
Petunia	SEEDPET	2.00/pkg.	_____	_____
Pole beans	PKPOLEB	2.00/pkg. of 75	_____	_____
Radish	PKGRADI	2.00/pkg. of 75	_____	_____

Subtotal \$ _____

Transfer this Subtotal to page 26.

Kit Parts

Part Name	Part Number	Price	Quantity	Total
Rye grass	PKGRYEG	\$2.00/pkg. of 200	_____	_____
Squash	PKGSQUA	2.00/pkg. of 75	_____	_____
Sunflower	PKGSUNF.	2.00/pkg. of 75	_____	_____
Tomato	PKGTOMA	2.00/pkg. of 75	_____	_____
Slides, microscope				
Standard slides	SLIDEMS	30.00/pkg. of 72	_____	_____
Depression slides	SLIDEMD	30.00/pkg. of 12	_____	_____
Cover slips, plastic	SLIDECs	10.00/pkg. of 100	_____	_____
Sponge feeder stations (<i>Butterflies</i>).	UREPLUG	0.50/each	_____	_____
Sponge block set (<i>Measuring</i>).	SPNGBLK.	5.00/set	_____	_____
Spools, 2" (Systems)	SPLWOOD	2.50/each	_____	_____
Spoons, plastic, specify color	SPOONPL	0.50/each	_____	_____
Spring scales (<i>Simple Machines</i>)	SCALEEC	12.00/each	_____	_____
Straws, 10" wrapped.	STRAW11	5.00/pkg. of 50	_____	_____
Streak plates	STREAKP	2.00/each	_____	_____
Tangrams (Properties)				
Pieces and cards	TANGRCD	20.00/set	_____	_____
Pieces only	TANGRAM	15.00/set of 10	_____	_____
Cards only	TANGLCD	5.00/set of 15	_____	_____
T pins.	PIN000T	12.50/pkg. of 100	_____	_____
Tape measure (<i>Measuring, Simple Machines</i>)	TAPEMES	7.00/each	_____	_____
Teabags (<i>Interactions</i>)	TEABAGS	0.50/each	_____	_____
Thermometers, aluminum backed	THERMOM	3.25/each (1-500) 2.25/each (500-999) 2.00/each (1000+)	_____ _____ _____	_____ _____ _____
Trays				
Black plastic (<i>Mystery Matter</i>)	WORKTRA	5.00/each	_____	_____
Plain, white, plastic, 12 3/4" x 9 1/4" (<i>Properties</i>)	TRAYWHI	3.00/each	_____	_____
Styrofoam (<i>Systems</i>)	TRAYSTY	0.50/each	_____	_____
Tubing				
Polyethylene (<i>Looking at Liquids</i>)	TUB3002	2.00/for 30 ft.	_____	_____
Vinyl 3/8" diameter	TUBVIN8	2.75/ft.	_____	_____
Vinyl 1/4" diameter	TUBVIN4	2.00/ft.	_____	_____

Subtotal \$ _____

Photocopy the completed form and submit, or find additional forms at www.espsciencetime.org.

Transfer this Subtotal to page 26.



Kit Parts

Part Name	Part Number	Price	Quantity	Total
Tubes (<i>Sound</i>)				
Wide 18" x 7/8"	TUBC7/8	\$25.00/pkg. of 30	_____	_____
Narrow 18" x 1/2"	TUBC1/2	30.00/pkg. of 80	_____	_____
Plugs for above 1/2" tubes	PLUG1/2	7.00/pkg. of 100	_____	_____
Tweezers	TWEEZER	5.00/each	_____	_____
Twine , cotton (<i>Sound</i>)	TWINE21	7.00/each	_____	_____
Vials (<i>Measuring</i>)	VIAL1X4	1.00/each	_____	_____
Washers				
#4 washers (<i>Crayfish, Looking at Liquids</i>)	WASHO#4	5.00/vial	_____	_____
1/2" washers (<i>Measuring</i>)	WASH1/2	5.00/pkg. of 100	_____	_____
Wire				
#20 bare copper wire	WIREB20	35.00/lb.	_____	_____
#26 plastic insulated wire (<i>Electromagnetism</i>)	WIREE26	37.50/lb.	_____	_____

Subtotal \$ _____

p. 19	Subtotal	\$ _____
p. 20	Subtotal	\$ _____
p. 21	Subtotal	\$ _____
p. 22	Subtotal	\$ _____
p. 23	Subtotal	\$ _____
p. 24	Subtotal	\$ _____
p. 25	Subtotal	\$ _____
p. 26	Subtotal	\$ _____
Grand Total		\$ _____

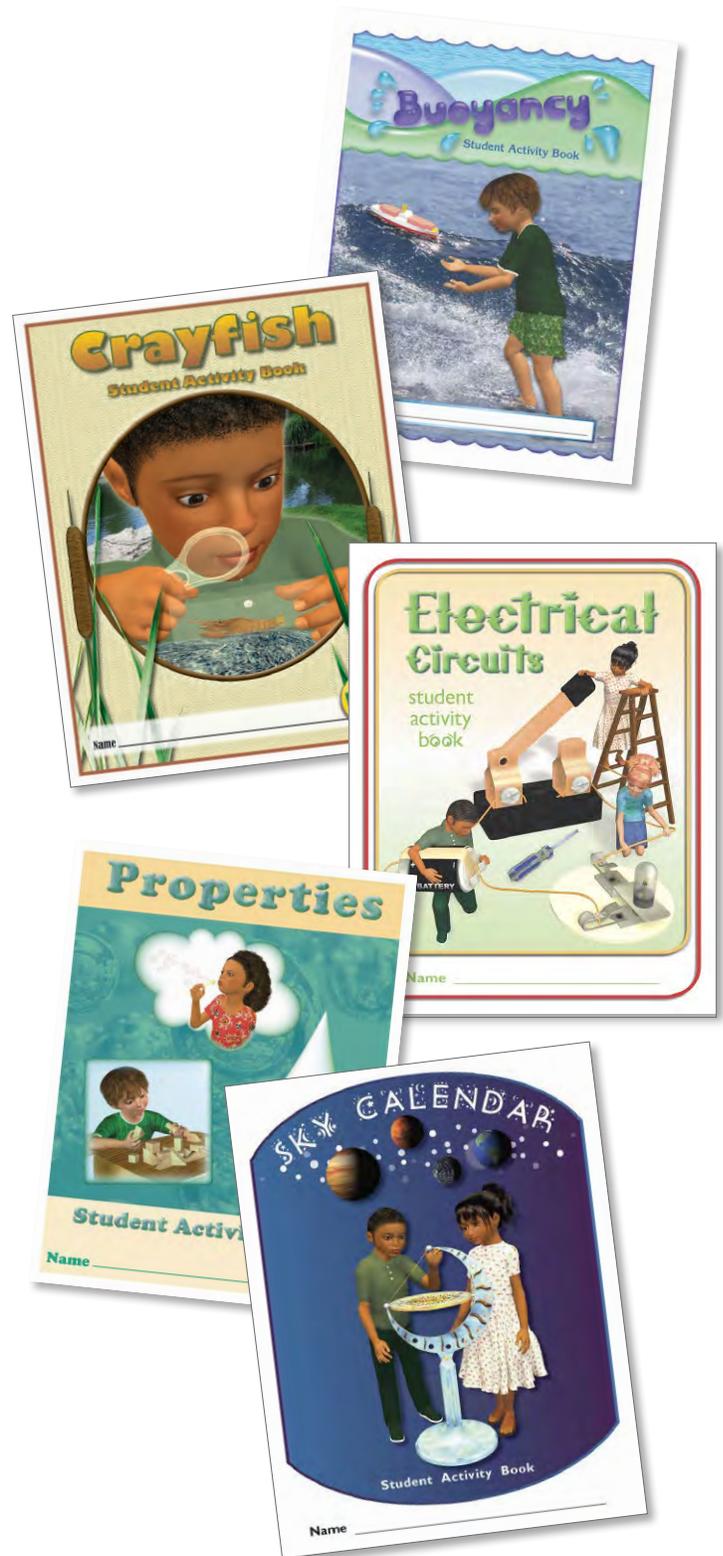


Transfer Grand Total to Purchase Budget Worksheet page 33, Line 2.

Student Activity Books

Student Activity Books

Astronomy	\$10.00
Birds and Their Adaptations	10.00
Buoyancy	10.00
Butterflies	10.00
Classroom Plants.	10.00
Crayfish	10.00
Earthworms	10.00
Electrical Circuits.	10.00
Electromagnetism Project Book	10.00
Electromagnetism	10.00
From Seed to Plant.	10.00
Magnets.	10.00
Measuring.	10.00
Mystery Matter	10.00
Plant Responses	10.00
Properties	10.00
Rocketry.	10.00
Rocks and Minerals	10.00
Senses.	10.00
Sky Calendar	10.00
Systems & Simple Machines	10.00





STEM Resources from ESP

Design Challenge Activities

STEM is easily integrated into your grade 5-8 curriculum with the Elementary Science Program's **NEW** Design Challenge Activities.

What is included in each Design Challenge?

- ◆ One challenge for the class to complete
- ◆ Overview and procedure for the challenge
- ◆ **ALL** the materials needed to complete the challenge
- ◆ An assessment of student work



Design Challenge Activities Titles:

#1 - On Top of Spaghetti - Students work in groups to design a support structure for a marshmallow. The challenge is to design a support structure in 18 minutes using only the materials provided.

Cost for activity/materials - \$10.00*

#2 - Boats and Floats - Students work in pairs to design floatation devices out of different materials (foil, wood and clay). The challenge is to design a boat or float, using only the materials provided, that will support the maximum load.

Cost for activity/materials - \$60.00*

#3 - Oil Spill - Students work as a team of engineers contracted to first contain, and then clean up an oil spill off the coast of Puerto Rico with limited materials.

Cost for activity/materials - \$75.00*

#4 - Straw Rockets - Students work in groups to design, test, and modify rockets constructed from straws. A reusable rocket launcher is included.

Cost for activity/materials - \$60.00*

#5 - Solar Cooker - Students work in groups to design and build a solar cooker. Their challenge is to build a cooker that will maintain a temperature of 65° C for 20 minutes. This is the temperature and time needed to pasteurize water making it safe to drink. Included in the supplies is a silver colored vinyl material that provides a highly reflective surface.



Cost for activity/materials - \$75.00*

*Design Challenge Activities are available for purchase only.



www.telegraph.co.uk

Each challenge is aligned to the NGSS:

MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

MS-ETS1-3: Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

Contact Gina at 585-617-2363 or 1-800-832-8011 or email at gvaccare@monroe2boces.org for more information or to order your design challenges TODAY!

Assessment Kits

** Testing materials sell out every year. Order early to avoid shortages at testing time.*

Grade 4, Form A Science Test Kits and Replacement Parts

COMPLETE KITS		PRICE	QUANTITY	TOTAL	
Regular Kit for 30 Students		\$375.00	_____	_____	
Mini Kit for 15 Students		225.00	_____	_____	
NYS RECOMMENDED KIT (Balances and Gram Masses not included)					
Regular Kit for 30 Students		215.00	_____	_____	
Mini Kit for 15 Students		140.00	_____	_____	
REPLACEMENT PARTS (same as those in the original kit.)		PART NUMBER	PRICE	QUANTITY	TOTAL
GENERAL SUPPLIES					
Duct tape	TAPDUCT		\$7.00 roll	_____	_____
Paper towels	TOWELPA		5.00 pkg.	_____	_____
STATION #1 – MEASURING OBJECTS AND LIQUIDS					
Lined jar without lid labeled 1	JAR00#1		3.25 each	_____	_____
Jar labeled 2, DO NOT OPEN	JAR00#2		3.25 each	_____	_____
Jar labeled 3, DO NOT OPEN	JAR00#3		3.25 each	_____	_____
Lids for jars	LID58MM		0.25 each	_____	_____
Set of Gram Masses	WGHTSET		19.00 set	_____	_____
Graduated beaker (100 ml).	BEAK100		2.50 each	_____	_____
Plastic cup labeled WATER	CUPP-12		0.50 each	_____	_____
Medicine cup (30 ml).	MEDICUP		0.10 each	_____	_____
Ruler (30 cm) with metric and standard units	RULER12		2.25 each	_____	_____
Rock.	ROCSANP		1.50 each	_____	_____
Double pan balance	LGEBALS		25.00 each	_____	_____
STATION #2 – TESTING AND SORTING OBJECTS					
"D" cell battery.	BATTOOD		1.00 each	_____	_____
#82 rubber band.	RUBAN82		0.10 each	_____	_____
Fahnestock clip.	FANCLIP		0.50 each	_____	_____
Bulb holder	BULBHOL		1.50 each	_____	_____
#48 bulb	BULB/48		1.50 each	_____	_____
Insulated wire	WIREI20		1.00 each	_____	_____
Insulated wire with alligator clip	ALLCLIP		2.00 each	_____	_____
Bar magnet	MAGNBAR		12.00 each	_____	_____
Plastic bag labeled TEST OBJECTS.	LABTOBJ		0.10 each	_____	_____
10 paper clips	PAPCLIP		0.10 each	_____	_____
Plastic spoon	SPONRED		0.50 each	_____	_____
Tongue depressor.	TONGUED		0.05 each	_____	_____
Aluminum foil square	ALUFOSQ		0.10 each	_____	_____
Colored ceramic disk magnet	MAGDISK		2.25 each	_____	_____
STATION #3 - BALL AND RAMP					
Deli container with dot	CONCP16		0.50 each	_____	_____
Wood block	BLOC6X6		2.00 each	_____	_____
Ruler (30 cm).	RULER12		2.25 each	_____	_____
Golf ball	GOLFBAL		1.50 each	_____	_____
Plastic bag labeled GOLF BALL	LABGBAL		0.10 each	_____	_____
Plastic bag labeled PING PONG BALL	LABPBAL		0.10 each	_____	_____
Ping pong ball	PINGBAL		0.75 each	_____	_____
Place mat	GAMEMAT		1.50 each	_____	_____
Carpet tape	TAPECAR		7.00 roll	_____	_____

Assessment Kits

*** Testing materials sell out every year. Order early to avoid shortages at testing time.**

Grade 8, Form A Performance Test Kits

COMPLETE KIT	PRICE	QUANTITY	TOTAL
Regular Kit for 30 Students	\$275.00	_____	_____
Mini Kit for 15 Students	150.00	_____	_____

REPLACEMENT PARTS <i>(same as those in the original kit.)</i>	PART NUMBER	PRICE	QUANTITY	TOTAL
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GENERAL SUPPLIES

Duct tape	TAPDUCT	\$ 7.00 roll	_____	_____
Masking tape	TAPEMAS	5.00 roll	_____	_____

STATION 1: SORTING CREATURES

Red plastic centipedes	INSECTU	0.50 each	_____	_____
Black/green plastic fly	INSECTU	0.50 each	_____	_____
Green/blue plastic dragon fly	INSECTU	0.50 each	_____	_____
Red/black plastic ant	INSECTU	0.50 each	_____	_____
Brown/black plastic spider	INSECTU	0.50 each	_____	_____
Black/brown plastic bristle tail. (please list which insect when ordering)	INSECTU	0.50 each	_____	_____
Sorting chart	CHARSOR.	1.50 each	_____	_____
Plastic bag labeled CREATURES	LABCREA	0.10 each	_____	_____
10 index cards	CARDIND	0.50 set	_____	_____
Slide A (mm grid).	SLIDEOA	3.75 each	_____	_____
Slide X (drosophila).	SLIDEDR.	5.00 each	_____	_____

STATION 2: RAMP AND GOLF BALL

Support blocks	BLOC6X6	2.00 each	_____	_____
Golf ball	GOLFBAL	1.50 each	_____	_____
Deli container (cut out)	CONCP16	0.50 each	_____	_____
Ramp placemats	PLACMAT	1.50 each	_____	_____
5 Gram mass	WGHTSET.	1.00 each	_____	_____
Ruler.	RULER12	2.25 each	_____	_____
Carpet tape	TAPCAR	7.00 roll	_____	_____
Plastic bag labeled GOLF BALL	LABGBAL	0.10 each	_____	_____
Ping pong ball	PINGBAL	0.75 each	_____	_____
Plastic bag labeled PING PONG BALL	LABPBAL	0.10 each	_____	_____

STATION 3: WOODS AND WATER

Ruler.	RULER12	2.25 each	_____	_____
Block A	D/BLOCK	0.75 each	_____	_____
Block B	BLOCKWD	3.00 each	_____	_____
Plastic bag labeled BLOCK A	BLOCKAL	0.10 each	_____	_____
DO NOT OPEN label.	LABOPEN	0.10 each	_____	_____
Plastic cup	CONCP09	0.50 each	_____	_____

Subtotal \$ _____

Note: Schools will need to provide microscopes, calculators, and triple beam balances.

Transfer this Subtotal to page 32.



Assessment Kits

** Testing materials sell out every year. Order early to avoid shortages at testing time.*

Grade 8, Test Sampler Kits and Replacement Parts

COMPLETE KIT	PRICE	QUANTITY	TOTAL
Regular Kit for 30 Students	\$300.00	_____	_____
Mini Kit for 15 Students	185.00	_____	_____

REPLACEMENT PARTS <i>(same as those in the original kit.)</i>	PART NUMBER	PRICE	QUANTITY	TOTAL
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GENERAL SUPPLIES

Duct tape	TAPDUCT	\$ 7.00 roll	_____	_____
Masking tape	TAPEMAS	5.00 roll	_____	_____

STATION A: EXPERIMENTING WITH A BALL AND RAMP

Support blocks	BLOC6X6	2.00 each	_____	_____
Golf ball	GOLFBAL	1.50 each	_____	_____
Deli container (cut out)	CONCP16	0.50 each	_____	_____
Ramp placemats	PLACMAT	1.50 each	_____	_____
5 Gram Mass	WGHTSET	1.00 each	_____	_____
Ruler	RULER12	2.25 each	_____	_____
Carpet tape	TAPECAR	7.00 roll	_____	_____
Plastic bag labeled GOLF BALL	LABGBAL	0.10 each	_____	_____

STATION B: SOAPS AND WATER

Neutrogena soap	SOAPNEU	5.00 each	_____	_____
Ivory soap	SOAPIVO	2.00 each	_____	_____
Rubber ball	SUPERBL	0.50 each	_____	_____
Styrofoam ball	BAL0001	0.50 each	_____	_____
Paper towels	TOWELPA	5.00 pkg.	_____	_____
Plastic cup labeled WATER	CONCP09	0.50 each	_____	_____
Plastic bag labeled BAG OF BALLS	BAGBALLS	0.25 each	_____	_____
10 Plastic bags with labels SOAPA1-SOAPA10	SOAPOA1	1.50 set	_____	_____
10 Plastic bags with labels SOAPB1-SOAPB10	SOAPOB1	1.50 set	_____	_____
10 DO NOT OPEN labels	LABOPEN	1.00 set	_____	_____
Ruler	RULER12	2.25 each	_____	_____

STATION C: CELL SIZE

10 Index cards	CARDIND	0.50 set	_____	_____
Slide A (mm grid)	SLIDEOA	3.75 each	_____	_____
Slide B (Allium epidermis)	SLIDEOB	5.00 each	_____	_____
Slide C (Frog blood)	SLIDEOC	5.00 each	_____	_____

p. 30 Subtotal \$ _____

p. 31 Subtotal \$ _____

p. 32 Subtotal \$ _____

Grand Total \$ _____

Photocopy the completed form and submit, or find additional forms at www.espsciencetime.org.

Purchase Worksheet

Purchase Worksheet

BOCES _____
 District _____
 Contact Name _____
 Address _____

 Phone (_____) _____ FAX (_____) _____ Email _____

Please transfer the dollar amounts from the order forms to the correct line below. To determine your shipping charges:

- If using a purchase order or pre-payment with school check, shipping is 13% of the total items, with a minimum shipping charge of \$5.00.
- If adding to your cross-contract or contract (for subscribing districts only), leave the shipping amount and Adm. Charge blank. Shipping will be calculated at the cross-contract or contract rate.

There is a minimum total of \$25.00 on all purchase orders.

Please send all appropriate order forms with your request.

The 5.2% Administrative Charge is applicable to all purchase sub-totals.

Please check the appropriate box below:

- Purchase Order/School Check attached
- Add to Cross-contract/Contract. Authorized Signature _____

For additional forms, go to
www.espsciencetime.org.

Photocopy the completed form
 and please mail or fax to:

Monroe 2–Orleans BOCES
 Elementary Science Program
 38 Turner Drive
 Spencerport, NY 14559

Fax #: 585-352-1157

LINE 1	Refill Packages/Live Materials	_____
2	Kit parts	_____
3	Student Activity Books	_____
4	Assessment Kits/Parts	_____
	Sub Total	_____
	Indirect Cost 5.2%	+ _____
	Shipping 13% (minimum \$5.00)	+ _____
	Total Purchase	\$ _____

Policies

Return Policy

Due to the cost of shipping and restocking of items returned, all sales of kits, kit parts and publications are final. If you are uncertain about a particular item, please call the ESP at 1-800-832-8011 for additional information. We will be happy to advise you.

Pricing

Due to the volatility of the wholesale prices on certain items, our prices are subject to change without notice. When placing an order for large quantities of materials, please call for current pricing.

Live Materials Policy

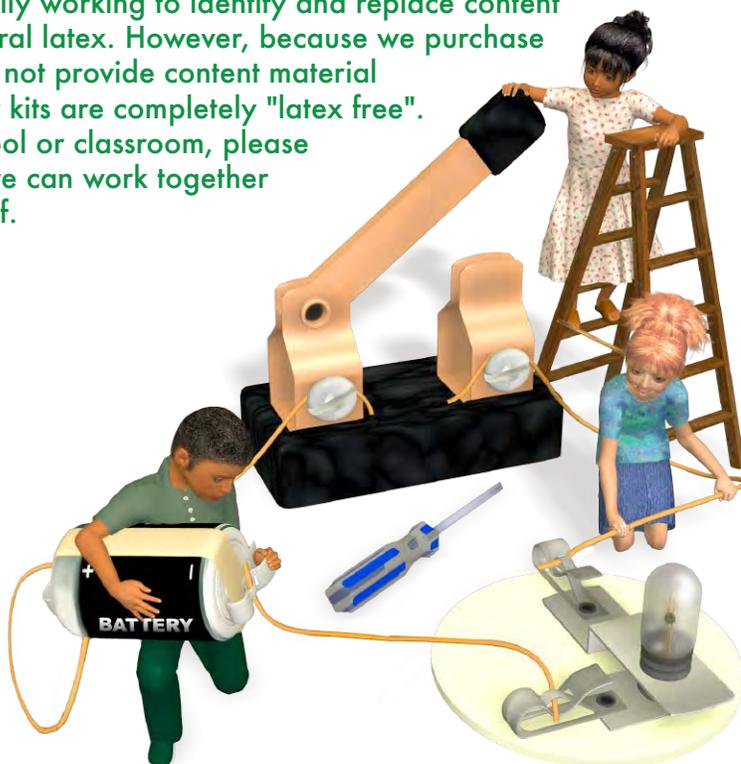
The ESP makes all attempts to package and ship live materials so that they arrive healthy. Because factors such as weather, shipping delays or improper handling are not within our control, we do not make refunds for live materials. Upon request, and when sufficient quantities allow, we will replace and reship live materials at no additional cost.

Inventory Policy

Please inventory your materials upon arrival! Any missing/damaged parts must be reported to the ESP within 2 weeks of UPS delivery date.

Latex Policy

The Elementary Science Program is continually working to identify and replace content items in our kits that potentially contain natural latex. However, because we purchase materials from many vendors, some who do not provide content material information, we are unable to claim that our kits are completely "latex free". If a latex allergy is of concern to your school or classroom, please contact us directly before ordering so that we can work together to insure the safety of your students and staff.



Elementary Science Program

Monroe 2–Orleans Board of Cooperative Educational Services

38 Turner Drive
Spencerport, NY 14559

www.espsciencetime.org

11/18



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