

Circulation Information About MATCH Kits - 1972-73

Sponsored by a four year U.S. Office of Education grant, the MATCH Project was concerned with how real materials could be used to make classroom teaching and learning much more meaningful and fun.

MATCH stands for Materials and Activities for Teachers and Children. Taking the form of kits, MATCH Units are non-verbal systems of materials and activities that communicate. Designed for the relatively intensive treatment of specific topics over a two or three week period, they contain objects of all sorts: films, pictures, games, recordings, projectors, supplies, and a detailed Teacher's Guide which structures the use of the unit.

MATCH Unit activities are designed to make learning the product of the child's own actions. Children study film loops to find out what various birds eat; they grind corn to make an Algonquin food, nokake; they reconstruct life in ancient Greece by "reading" objects found in an excavated villa; they write, edit, illustrate and print their own book; they arrange troughs and wheels and tubes on a vertical board and see what happens when water is poured into the system at the top; they drill soapstone using a bowdrill the way Netsilik Eskimos do; they set up a Japanese family altar and make a prayer to Buddha and to their ancestors.

Altogether sixteen MATCH Units were developed and tested in the schools by teams of Museum staff members. Now American Science and Engineering, in partnership with the Museum, is marketing commercial versions of three MATCH Units for sale to school systems, curriculum centers and teacher's colleges. MATCH Units are also circulated for a fee from the Circulating Kits Department of the Museum. For information about renting MATCH Units and other Loan Exhibits from the Museum, call 617-522-4800, Extension 42.

Following is a list and brief description of the MATCH Units:

A HOUSE OF ANCIENT GREECE--(Grades 5-6) Through "excavating" a villa of ancient Greece, and by reading the artifacts, the class reconstructs the everyday life of the time.

THE ALGONQUINS--(Grades 3-4) Children savor the daily life of the Northeast Woodland Indians, scraping deerskin, hafting an arrowhead, preparing food, assembling a trap, acting out stories of spirit help.

SEEDS--(Grades 3-4) Experimenting with common fruits and seeds such as peanuts, beans, milkweed, and grapple plant, children learn the mechanisms of seed dispersal.

THE CITY--(Grades 1-3) The relationship between the cities men build and the lives they live in them, is introduced through large photos, films, model buildings, records, etc. **

GROUPING BIRDS--(K-Grade 2) Children use birds in a variety of classifying games. Included are nine mounted birds in plexiglass containers, film loops, projector, pictorial game cards, story and reference books.

HOUSES- (Grades 2-4) An Eskimo igloo is compared with a Nigerian mud - and - thatch hut, to show how physical settings call for different ways of life. Children build a mud-and-bamboo wall, assemble an igloo, scrape deerskin.

ANIMAL CAMOUFLAGE-(Grades 2-3) Using a shadow box with a variety of backgrounds, together with model animals and mounted insects, children learn the principles of camouflage.

NETSILIK ESKIMOS-(Grades 3-4) A seal hunt and other activities of Netsilik life are recreated through the use of authentic Eskimo tools, clothing, other artifacts, films and records.

MUSICAL SHAPES AND SOUNDS-(Grades 5-6) Children play various instruments, take them apart and relate their shapes to the sounds they make. They also create their own instruments.

ROCKS-(Grades 5-6) Real rocks and fossils are coordinated with activities to show how they were formed and what they tell about the earth. Children make fossil prints, set off a volcano, dissolve limestone.

MEDIEVAL PEOPLE-(Grades 5-6) Using character books, costumes, props (Falconry gear, psaltery, wool carders, etc.), children enact episodes in the life of a medieval manor.

JAPANESE FAMILY-(Grades 5-6) Family life in modern Japan is explored through role playing. Box includes Japanese household items, clothing, family histories, film loops, and a projector.**

WATERPLAY-(K through Primary grades) A water table with things to manipulate; also, recordings, a film, and stories.

MATCH PRESS-(Grades 5-6) A "publishing company" is set up with a portable press, type, fonts, paper, ink and instruction cards. Class writes, edits, prints and binds a book of its own.

PADDLE-TO-THE-SEA (Grades 4-6) A classic story of the Great Lakes is made real through related objects and activities--creating a large mural-collage rigging a breeches buoy, bartering trinkets for furs, launching a class "Paddle".

IMAGINATION UNLIMITED-(Grades 4-6) The child's awareness of his unique perceptions and his ability to express them are developed through the use of illustrated word cards, unusual objects, and movies.

** Commercially available units.

MATCH Box Project Information and Materials

MATCH Units for sale: The first commercial editions of "The City" (grades 1-4), "Japanese Family" (grades 5,6) and "A House of Ancient Greece" (grades 5,6) can be purchased from the publisher: American Science and Engineering, Inc., 20 Overland Street, Boston, Massachusetts 02215.

MATCH Unit rental and leasing: the three commercial MATCH Units are no longer available for rental from the publisher. MATCH Boxes can be rented from the Museum by people in the New England area. The rental fee for each unit is \$30.00 for two weeks. Shipping and handling charges are extra. Because of the heavy demand for these boxes, reservations must be made in advance through the Loan Department of the Museum. Due to the heavy local demand and a lack of proper shipping facilities, the Museum does not circulate MATCH Boxes outside the New England states.

MATCH Units for examination at the Museum: the latest commercial editions and the original prototype MATCH Boxes can be examined in the Museum's Teacher Resource Center Monday through Friday 9-5, Thursdays until 9pm, and from 1-5 on Saturday. Special workshops on the nature and use of MATCH Boxes can be arranged by appointment.

MATCH Box Project Publications: The following publications are available in limited quantities from the Museum. In ordering, please send a check to the Children's Museum, Loan Department, Jamaicaaway, Boston, Massachusetts 02130.

MATCH Box Project Final Report (Vol.1)
Basic report containing purposes, methods, \$3.00
materials and project findings, 85pp.

Teacher's Guides to the original prototype units (Only the following are still available: Medieval People, Animal Camouflage, \$3.00
Musical Shapes & Sounds, Rocks, Paddle-To-The-Sea, Imagination Unlimited, MATCH Press.)

Note: Volumes I and II of the MATCH Box Project Final Report and all 16 original Teacher's Guides are available on microfiche and in hard copy through LEASCO Information Products, Inc. 4327 Rugby Avenue, Bethesda, Maryland 20014.

See special price information notice included in this packet.

A House of Ancient Greece

(Intermediate Grades and High School)



A House of Ancient Greece is the study of everyday life in an ancient Greek household through a simulated archeological dig. The class is divided into six groups, each group "excavating" a section of the Villa of Good Fortune. They "find" reproductions of ancient artifacts and use photos of other artifacts to reconstruct their sections of the Villa. A seminar of all six groups then completes the reconstruction of the Villa.

Overview:

The first two activities prepare the children to think like archeologists. They excavate a waste-paper basket and are introduced to "reading" objects by discovering what a penny, a nickel, a dime, and a quarter can tell about the United States in the twentieth century.

The children then view a filmstrip, introducing them to Dr. David N. Robinson and his actual dig excavating the Villa of Good Fortune.

In the next activity, the children discuss the process by which things get buried in the earth as time passes, and examine a pottery fragment and a coin that are over 2000 years old.

Now the core of the unit begins. The children divide into six teams of archeologists, to study "finds" from the six sections of the Villa. Each team works independently, following its own set of Research Guides. Students examine reproductions and photographs of ancient artifacts trying to figure out what each one is; they ultimately piece together a mental picture of their section of the Villa and how it was used.

To share their discoveries and to form a composite impression of life in the Villa, the teams plan presentations of their finds for an archeological seminar. Each team presents its finds, the conclusions it has reached about its section, and a brief skit depicting an activity that would have occurred in the section. Excerpts from Dr. Robinson's notes on the Villa and pictorial reconstructions help the children to see how the Villa of Good Fortune probably looked.

A second filmstrip shows one of the authors of the unit on a recent trip to Greece and includes a tour through the remains of the Villa of Good Fortune.

The unit concludes with an activity to help you assess what your class has learned about the process of archeology. Based upon their classroom experience, the children assemble a time capsule by selecting a number of household objects that will convey to archeologists 2300 years from now a picture of life today in the United States.

The eleven sets of activities will provide three to four weeks of classroom activity.

Indians Who Met the Pilgrims

(Intermediate Grades)



In *Indians Who Met the Pilgrims*, children meet Wampanoag people of today and, through them, learn about the history and traditions of Wampanoag culture, simultaneously maintaining continuity from a time hundreds of years before the Pilgrims came, up to the present. Wampanoag people participated in the design of this kit and have contributed their sense of traditional culture, their family experiences, and their concerns about historical and contemporary events.

The unit is divided into sections based upon the way life was lived in Eastern Massachusetts in response to the seasonal changes in the land. The children use materials in a Wampanoag way, create crafts based on Wampanoag designs, cook seasonal recipes, evaluate historical situations from an Indian viewpoint, and role-play through several decision-making sessions.

Overview:

Each set of seasonal activities begins with a narration by a Wampanoag who describes life in traditional times. The narrator offers the children a selection of activities, both traditional and modern, which are appropriate to that season.

The first activity introduces, via a filmstrip, the people, the land, and the concepts that will be used

throughout the unit. Children then play the Environment Game, which describes the natural resources of Eastern Massachusetts around 1620. The seasonal activities follow.

Spring is the time when fish swim upstream and fresh greens are available. Children haft a fish hook; gather fresh greens using the Environment Game; cook fish; set up a fish trap; plant beans, corn, and squash in the Wampanoag way; weave Wampanoag style baskets; and compare an accurate fish trap model with an early settler's drawing.

Summer is the time to collect shellfish, catch salt water fish, and tend gardens. The children collect fish and set up a clambake using the Environment Game. They can make clam chowder or clam fritters, identify Wampanoag foods served in a restaurant, evaluate a historical situation in which lobsters are traded for beads, and make a Gay Head type pot.

Fall is the time to harvest foods and to hunt and trap. Children set up models of animal traps and read about early settler experiences with the traps, make deerskin leather, try on Indian clothing, dry foods, collect nuts and berries in the Environment Game, cook berry dishes, and discuss the Indian contributions to the First Thanksgiving and the meaning of the Thanksgiving holiday today.

Winter is a quiet season. Children haft an arrow, drill shells and string a necklace, listen to a Wampanoag storyteller, prepare sassafras tea, play the bowl game, and evaluate a historical situation in which Pilgrims take corn from an Indian storage pit.

Social and political life are important during All Seasons. Children learn about the role of the sachem and his councilors and act out a council meeting, listen to a description of contemporary political organizations, and hold a meeting to make a decision about a current problem affecting Indian people. Religious life is introduced in All Seasons. Children learn about the traditional role of the Pow Wow and how the meaning of this word has changed.

In a final evaluation children compare what they now know and feel about Wampanoag people, their culture, and their history with what they knew and felt about Indians before they began.

There are 65 activities which will provide from two to six weeks of class activity.

Printed Materials: Notebook—*Who Are We?*, books—*Wampanoag Cookery* (4 copies), set of 7 framed photos, Environment Game, Clambake Game, herring trap overlay, map of Cape Cod, museum exhibit cards (11), study cards (20), menus (3), instruction cards (15), personal statement cards (9), historical documents (6), basket patterns (4), situation cards (14).

Filmstrip: *Who Are We?*

Cassettes: (7) *Who Are We?*, tape narrations: *Spring*,

Summer, Fall, Winter (including Moshop legends), *All Seasons* (including Indian music), *Farewell*.

Seasonal Materials: Deer-skin piece, ring and pin games (2), clay pot, modeling clay (4 lbs.), dried oysters, crow beads, mortar and pestle, corn kernels, quahog shells (5), carved fish hook, line, fishing weight, leather seed bags (3) with corn, bean and squash seeds, ash splint (140 ft.), oyster shells (5), leather breech cloth, leather leggings, leather belt, deadfall trap.

figure 4 trap trigger, yarn doll, corn husk doll, sassafras tea, sandstone, quahog shell bits (100), drills (3), soapstone bits (100), seed beads, arrow sets (3), ash splint basket, wood bowl game with disks and counting sticks, leather scraps, antler tip necklace.

Books: *Wampanoags in the 17th Century*, Mourt's Relation, Mashpee—Land of the Wampanoags, Granny and the Indians, Indians and the Strangers.

Teachers Guide.

Price: **\$525.00**

Medieval People

(Intermediate Grades)



Medieval People brings life to medieval times to remind students that all of history consists of real events involving real people. It deals with the fabric of life on a typical 13th Century French manor and thereby provides an added dimension to the understanding of the more factual aspects of medieval history. The unit can stand as a portrayal of a socio-economic system, and it is intended to supplement a larger unit on medieval history. Primarily, however, it is a unit for role-playing and may be used as such without any association to medieval history. Students play the roles of eight characters on the manor of St. Pierre. It is July of the year 1250, and three major events take place: a boar hunt, a poaching, and a trial. Students learn about the people and the workings of St. Pierre's social order by creative reenactments based on these three events.

Materials in the unit include costumes and props for the eight characters. Student booklets

which portray each of the characters contain a collection of related illustrations to be used for background and study. These illustrations are photos of museum artifacts or reproductions of museum paintings.

Overview:

The unit opens with Martin the Minstrel approaching St. Pierre. Via a filmstrip and a recording, students accompany Martin as he makes his way across the manor lands, thinking and musing to himself, revising an old song for Lady Elinor, noting various landmarks, encountering old friends and old enemies, planning his own strategies for his stay at the manor, and finally entering the castle of Sir William and Lady Elinor. This activity sets the scene for the unit and introduces students to St. Pierre and to the eight major characters.

Next the class is divided into eight character groups, each to learn about one of the characters through study of the character books. Then, through pantomimes and playlets, each group presents its character to the class. Costumes and objects used by the characters are incorporated into the development. A class discussion then centers on the contribution of each character to manor life.

With the characters established, students develop role-playing situations involving interactions among the characters. First they listen to the story of the boar hunt; small groups then create scenes drawn from this event, giving the incident a human aspect.

The culminating activity involves the entire class in a portrayal of the manor court. The main case is the poaching. All of the main characters are there, each with his or her own moods, expectations, apprehensions.

The nine sections will provide two to four weeks of classroom activity.

Contents

Artifacts and Props: Mirror back with mirror, chain mail sample, falconry lure, leather pouch, 5 coins, beeswax candle, leather seed pouch, barley seed, wheat seed, 10 quill pens, parchment sample, imitation parchment, psaltery with music, instructions and tuning key, wooden cross, panorama of St. Pierre, picture of tomb rubbing.

Costumes: Sir William—tunic, silver belt, and scallop

Character Books: Four copies for each of the eight characters above, 3 scenario ditto masters, script book.
Filmstrips: *Arriving at St. Pierre* (with cassette), *A Way of Life*.

Price: \$495.00

Paddle-to-the-Sea

(Intermediate Grades)



Paddle-to-the-Sea is old-fashioned story telling combined with a study of the Great Lakes. Holling C. Hollings' famous story tells of a model canoe carved by an Indian boy and placed on a snowy hillside in Ontario. The story follows the canoe's 4-year journey through all of the Great Lakes, down the St. Lawrence, and out to sea.

While following Paddle and his trip to the sea, classroom activities concentrate on mapping, Great Lakes shipping, iron and steel, pollution, and French and Indian trade.

Each activity begins with the teacher reading a portion of *Paddle-to-the-Sea* to the class. This story section provides a lead into the children's classroom activities. There is a major continuing activity—the assembly of a Great Lakes collage.

Overview:

The unit begins with the teacher reading the first installment of *Paddle-To-The-Sea* to the class, followed by an examination of a replica of Paddle and discussion of dreams and where they lead us.

Then the class follows Paddle. Porcupine quills and a beaver-cut log introduce forest animals,

beavers, dams, logging, rivers, and men.

When Paddle reaches Lake Superior, construction of the collage is begun. The class is divided into six groups, five assigned to a Great Lake and one group to the St. Lawrence Seaway. The children trace the outline of their section on one 4' x 8' piece of homosote or cardboard and each group begins to cover the map with pictures, objects, names, dates, and anything that expresses meanings that the story and the region hold for them.

When Paddle reaches Duluth, the children examine samples of ore, copper, wheat, and coal and view a film about the enormous ships that carry these materials across the lakes.

The children use a mileage wheel to calculate how far Paddle has traveled and listen to an interview with a retired Great Lakes sea captain. They operate a model canal lock filled with water and figure out how a model ship may be raised or lowered without pumping water. When Paddle reaches Gary, they view a filmstrip on making iron and steel.

Then, with Paddle in the middle of the lakes, the children view a filmstrip on water quality which describes some adventures that Paddle might encounter today. The filmstrip depicts various types of pollutants (e.g., Paddle turns green) and their sources.

The magic of the story returns when Paddle becomes marooned as a castaway. The children examine some items that might be washed ashore and write a story about where these items may have come from.

Paddle is found by many people who decide to help him on his way and not to keep him. The children, through role-playing, make these value decisions. When Paddle reaches Montreal, the children, in another role-playing activity, divide up into Chipewas, Hurons, and Frenchmen and barter with each other re-creating French and Indian trade.

Paddle reaches the sea, and there is promise. If the class makes a paddle person and sends it to the Children's Museum, they will make certain that the new voyageur is launched in the Atlantic.

The eleven installments will provide three to five weeks of class activity.



Contents

Five Filmstrips: *Paddle-To-The-Sea Illustrations*, *Captain Inches*, *Iron*, *Logging*, *Pollution* (with cassette).

Film: *Long Ships Passing*; 16mm, sound, color, 30 minutes

Materials, Paddle's Trip: Hand carved Paddle model, beaver-cut log, porcupine quills, model canal lock with small boat; samples of hematite, copper ore, taconite pellets, coal, wheat seeds, flotsam and jetsam, pig iron. Lake template set, 3 charts, mileage wheel, 8 assorted pamphlets.

Records: *Voice of the North*

Woods, *A Conversation with Captain Inches*.

Trade Items: Ball headed club, sweet grass basket, 2 bundles minipelts, 6 imitation eagle feathers, crooked knife, muskrat skin, ear of corn, 6 bear-claw necklaces, wampum necklace, trade cloth, brass beads, tomahawk pipe, 6 sashes, sunflower seeds, 6 trade mirrors, ribbon, 6 bunches seed beads, 9 role cards, canoe card.

Book: *Paddle-To-The-Sea* (2 copies, keyed to filmstrip).

Teacher's Guide.

Price: \$525.00

The City

(Grades K-4)



The City is about "cityness". It develops in young children a concept of the form of the city, its people, and their interactions. It does not teach specific facts about cities, but it makes children aware that the form of the city and the life of the city are related; that the city is a dynamic assembly of people within their living and working environment.

Overview:

The unit begins with a film about cities and city living based around the experiences of three children in three different American cities. The class views and discusses the film without sound. The film is shown again, this time with sound, and new concepts appear in a second discussion. Emphasis is on the city as an environment. The kit activities that follow the film are summarized below:

Small groups of children play with the city model in an unstructured situation, and the aerial photographs of the unit are introduced and related to the model.

In the next activity, the class is divided into two groups: the kids from the east side and those from the west side. Each group has a set of pictures of its own side of town. The two sides of town visit each other to discover what they have in common and to learn more about the city in general.

The children build picture sets based upon a particular theme and then develop intersecting ideas between sets. It is a game, like Scrabble®, using pictures instead of letters.

The teacher presents sets of picture "post-

cards" grouped according to a common idea, and the children try to identify the idea.

The children take a walking tour of the school neighborhood and build a model of the school neighborhood with the blocks and magnet board. Using the model of the neighborhood, the teacher demonstrates how the model of the city can be translated into a map of the city. The children complete the map and develop a key for it.

The next four activities involve aerial photographs: detecting and identifying elements; using city road maps to find things in the photographs; making a city map from the photographs; comparing and interpreting the photographs.

The children again view and discuss the film *My City* in terms of the lives of the three children in it. Emphasis is on the nature, diversity, and quality of life in a city.

The children play a game in which a "magic window" allows them to "see" what is happening as it is placed over a section of an aerial photo. They construct stories on what they "see."

Using pictures from the picture pool, the children build as large a story as they can about the city.

The children identify simple city sounds from the record included in the unit; then they try to analyze and interpret more complex sounds, and each child draws a picture of one of the sounds.

The children stage an accident scene and, by playing the roles of the people involved, develop a sense of the many specialized roles and the interdependence of people in the city.

To make children aware that people make and change cities, groups of children work with the model to plan and build a new city. Each group submits its design to the rest of the class for discussion. Maps can then be made of the various designs.

The final activity is designed to make the children aware of the personal impact of growth and change in the city and to give them a sense of the problems involved. As individual residents within a city neighborhood known as "Five Corners", the children try to solve the problem of how best to route a new highway through their neighborhood. Parents help their children develop personal solutions; then the students try to arrive at a common solution.

The 16 sets of activities will provide two to three weeks of classroom activity.



Contents

4 Books: *The Red Balloon*, *Evan's Corner*, *How to Read A City Map*, and *The Looking Down Game*.

Picture Pool: 36 mounted photographs (11" x 14").

Aerial Photographs: (4) 40" x 50" views of Boston, New York, Los Angeles, and Washington, D.C.

Magic Windows: (4) Children use these to see what is going on in the aerial photos.

Record: 12" LP *City Sounds*.

City Model and Chalkboard: 75 wooden buildings of different functional types. Buildings magnetically attach to a tiltable table for class viewing. Roads, etc. can be drawn on the plate with chalk.

Teacher's Guide.

Price: \$357.00
Price with optional film,
My City (20 minutes, 16 mm
sound and color): \$557.00

Japanese Family

(Intermediate Grades)



This kit uses the family as the entry point into the study of the Japanese. Each child in the class becomes a member of one of five different Japanese families, with each family focussing on different aspects of family life. Through role-play and materials oriented activities, the children develop the concept of the Japanese family structure and the basic possessions, manners, and changing history of the people.

Overview

The class is divided into five Japanese families with each child becoming a specific family member (father, daughter, etc.). The father is provided a Family Guide in order to lead his family through the activities. After establishing the family, the children "move into their house" in Musachimo, a suburb of Tokyo. The house is represented by a Japanese family room which will occupy a corner of the classroom. The families are introduced to some of the common objects found in a Japanese household and the sounds of Japan from a record album.

Each family then sets up house using its own set of materials; each set contains the materials and activities covering one aspect of the home, i.e. family room, altar, dining area, etc. After learning to use their objects, children demonstrate proper usage to the rest of the class. Then the children hold an open house where each family describes its section of the house to the other families.

The families study their family histories in order to learn about traditional Japanese family structure. A comparison of a Western culture family tree with a Japanese family tree provides a keen insight into this structure. An authentic Japanese register and a photograph album provide models for the registers of the five families, and a son of one family marries a daughter of another with the family changes recorded in the registers.

Another change takes place . . . the father retires. Each family holds a short ceremony during which the father passes the Family Guide and authority on to his eldest son.

The final activity summarizes the unit as a whole, and each family makes a scrapbook reflecting its history and experiences. An optional film, *The Japanese*, reinforces the concepts developed in the kit.

The nine sets of activities will provide from two to three weeks of classroom activity.



Contents

Religious Objects: Brass bell, striker for bell, cushion, incense burner, incense, Buddha statue, ancestor tablet.

Clothing: Boy's kimono, girl's kimono, obi sash and bow, sash for girl's kimono, handkerchief, sash for boy's kimono.

Shoes: Geta (2 pair), slippers (1 pair), boy's black tabi (1 pair), girl's white tabi (1 pair).

Decorative Materials: Flower bowl, clay, dried flowers, scroll, 35 calligraphy brushes, calligraphy kit with instruction chart.

Table and Tableware: Soup bowl with lid, pickle plate, rice bowls (2), bean curd soup packets (20), child's chopsticks in box, bamboo chopsticks (5 pair), wooden chopsticks (44 pair), table.

Japanese Books: Magazine, comic books, poetry book with translations.

Family album: Reproduction of authentic Japanese photo album.

Record: 12" LP *Sounds of Japan*.

5 Family Guides: Directions to fathers for doing lessons and role cards for family members.

15 Family Histories of the Five Classroom Families. Teacher's Guide.

Price: \$495.00

Price with optional film *The Japanese* (16 mm sound, black and white): ... \$770.00

Match units are materials oriented social studies kits which provide from two to six weeks of fairly intensive and exciting classroom activity in six areas of social studies. Developed by the Boston Children's Museum, the kits are based on the idea that much of what we would like children to learn cannot be communicated through the printed page. Learning takes place when the child is engaged with concrete material, be it a model, an ancient artifact, a pair of chopsticks, a game, a film, or even another child. Match units have been designed to make this nontextual learning practical in the classroom.

Match units are supplied in rugged suitcase-type containers for facility of movement between classrooms. The comprehensive teacher's guides provide learning objectives, detailed instructions, and helpful teaching hints.

**American Science
and Engineering, Inc.**
20 Overland Street
Boston, Massachusetts 02215
617-262-6500

AS&E®





Ordering Information

Order from American Science and Engineering, Inc.,
20 Overland Street, Boston, Massachusetts 02215

Prices and Terms: Prices are subject to change without notice. Terms are net 30 days. All materials are shipped f.o.b. shipping point. We normally pre-pay transport charges and add them to your invoice. Federal and state taxes, if and when applicable, are added to your invoice.

C.O.D. Requests: Cannot be honored.

Shipping: All orders will be shipped the best and most economical way unless you specify otherwise.

Materials on Approval: When specifically agreed to, materials will be shipped on 30-day approval. An invoice marked "On Approval" will be mailed after the materials have been shipped. If you wish to return the materials ordered within the 30-day approval period, you will be billed only for the shipping charges incurred by AS&E. All materials must be returned in salable condition.

Pricing

Japanese Family (Intermediate Grades)	
Price:	\$495.00*
The City (Kindergarten-Grade 4)	
Price:	\$357.00*
Paddle-To-The-Sea (Intermediate Grades)	
Price:	\$525.00
Medieval People (Intermediate Grades)	
Price:	\$495.00
Indians Who Met The Pilgrims (Intermediate Grades)	
Price:	\$525.00
A House of Ancient Greece (Intermediate Grades and High School)	
Price:	\$525.00

*Optional Film Available



JAPAN

Program	\$ 495.00
Movie, 16mm-B&W-Sound	275.00
Complete	770.00

ITEMS

Honda Box and Teacher's Envelope	48.25
Kawai Box and Teacher's Envelope	83.25
Tanaka Box and Teacher's Envelope	130.85
Yoshida Box and Teacher's Envelope	51.25
Yamakawa Box and Teacher's Envelope	55.75
Teacher's Guide	4.00
Teacher's Envelope	26.75
Table	19.95
Magazine	1.50
Poetry Book	7.15
Comic Book	1.50
Record "Sounds of Japan"	4.98
Photo Album	8.95
Calligraphy Set	8.65
Extras Drawer	42.90
Teacher's Case with Wire Frame	19.95
Families Case with Wire Frame	19.95

* Prices subject to change without further notice.

THE MATCHTM PROGRAM

PRICE LIST

American Science and Engineering, Inc.
20 Overland Street
Boston, Massachusetts 02215

CITY

Program	\$ 357.00
Movie 16mm-color-sound 30 minutes	200.00
Complete	\$ 557.00

ITEMS

Wooden Buildings & Magnetic Board	264.98
Set of 4 Aerial Maps with Grommet Strips & 5 Corner Map	20.45
Teacher's Guide	4.00
Set of Ditto Masters 1 letter 1 5-corner map	3.00
Picture Pool of 36 Pictures	41.00
Set of 4 Magic Windows	15.00
Record "City Sounds"	4.98
Film "My City"	200.00
Book, <u>Evan's Corner</u>	3.95
Book, <u>The Red Balloon</u>	3.30
Book, <u>The Looking Down Game</u>	2.95
Book, <u>How To Read A City Map</u>	3.79
Case with Wire Frame	19.95

* Prices Subject to Change Without Further Notice.

GREECE

Program	\$ 525.00
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ITEMS

Alpha Kit	64.65
Beta Kit	58.55
Gamma Kit	98.25
Delta Kit	74.25
Epsilon Kit	129.50
Zeta Kit	68.10
Teacher's Guide	4.00
Set of 5 Villa Sketches	4.30
Villa Floor Plan	2.85
Map of Greece	2.85
Filmstrip "Olynthus Revisted" Commentary	6.00
Authentic Coin	13.75
Book, <u>Archaeologists and What They Do</u>	3.95
Book, <u>Classical Greece</u>	4.95
Book, <u>Everyday Things in Ancient Greece</u>	4.00
Case with wire frame	19.95

* Prices Subject to Change Without Further Notice



INTRODUCTION

MATCH kits are self-contained multi-sensory units, each of which provides two to three weeks of intensive activity in social studies. The kits were originally designed by the Boston Children's Museum; American Science & Engineering, Inc. began the manufacture and distribution of the commercial editions of *THE CITY*, *A HOUSE OF ANCIENT GREECE* and *JAPANESE FAMILY* in 1968 and now over 100,000 students use MATCH within their curricula. Each kit consists of a selection of involvement activities which allows the student to develop an in-depth knowledge of the subject by using the materials that best teach to the topic.

MATCH makes extensive use of real materials because much of what we learn is attained via multisensory experience. The textbook is our most efficient and most valuable teaching tool but by confining the teaching of social studies to the printed page we are occasionally inviting tedium, sometimes describing abstractions which are beyond a child's comprehension, frequently presenting non-sequential concepts in sequential order and almost always limiting the opportunity for stu-

dents to learn from each other. MATCH combines books, films, records and, most important, real objects into an exciting effective learning system which allows children to work in small groups and as a class, to handle, study, experiment, record, conjecture, communicate and learn.

IN *THE CITY* the students construct and analyze a city and solve one of our major urban problems; in *JAPANESE FAMILY* the class becomes groups of 5 interacting Japanese families and a section of the classroom becomes a Japanese home; in a *HOUSE OF ANCIENT GREECE* 6 teams excavate an ancient Greek villa and, using their archeological "finds" reconstruct the villa. They learn by becoming involved.

Each kit contains a comprehensive teacher's guide which lists detailed instructions, learning objectives and helpful teaching hints.

MATCH units are supplied in ruggedized easily handled suitcase-sized containers for facility of movement between classrooms and ease of storage in a media center.

HOUSE OF ANCIENT GREECE introduces children to the everyday life of an ancient Greek household, and to archeology as a tool for learning about people's lives long ago.

The class simulates an excavation of the Villa of Good Fortune. Acting as archeologists, the children examine "finds" that were or could have been excavated from the Villa. These "finds" are photographs and reproductions of ancient artifacts. The photographs, taken by Dr. Robinson's team of archeologists, show artifacts that were actually dug up at Olynthus, either from the Villa of Good Fortune or from other houses nearby. The reproductions are of artifacts from the period that are like those found in the houses of Olynthus.

A HOUSE OF ANCIENT GREECE contains eleven activities of varying lengths designed to be used together in a two or three week period.

After this simple introduction to the process of archeology, the children see a film strip on Dr. Robinson's archeological expedition. The pictures include photographs taken by Dr. Robinson's team as they excavated the city of Olynthus and the Villa of Good Fortune.

At this point the core of the unit gets underway. The children divide into six teams of archeologists, to study "finds" from the six sections of the Villa. Each team works independently following its own set of Research Guides. Students examine reproductions and photographs of ancient artifacts, trying to figure out what each one is; they ultimately piece together a mental picture of their section of the Villa and how the Greeks used it.

Next comes a second filmstrip on Olynthus, showing one of the authors of this unit on a recent trip to Greece. The highlight is a tour through the remains of the Villa of Good Fortune.

The unit concludes with an activity that will help you evaluate what your class has learned about the process of archeology. Guided by their experience with A HOUSE OF ANCIENT GREECE, the children assemble their own time capsule. They select a number of small household objects that might convey to archeologists living 2300 years from now what life was like in "A HOUSE OF CONTEMPORARY U.S.A."





JAPANESE FAMILY — Intermediate Grades

The materials and activities in this MATCH unit offer an introduction to Japanese culture through the family. The students divide into five Japanese families with each child assigned a specific role. Through role play the children learn about Japanese family members, their work and how they live together, their basic possessions, manners and changing history. There are eight activities for each of the five families followed by a film re-enforcing what has been learned. The detailed teacher's guide and role cards provide simple, easily followed instructions and the materials allow a Japanese home to be set up in one section of the classroom.

Overview:

The class is divided into five Japanese families with each child becoming a specific family member (father, daughter etc.). The father is provided a Family Guide which complements the teacher's guide in order to lead his family through the activities. After establishing the family the children "move into their house" in Musachimo, a suburb of Tokyo. The house is represented by a Japanese family room which will occupy a corner of the classroom. The families are introduced to some of the common objects found in a

Japanese household and hear the sounds of Japan from the record album.

Each of the families then sets up house, using their respective kits of materials; each kit provides the materials and activities to provide the understanding of one aspect of the home, i.e. family room, altar, dining area, etc. After learning to use their objects, children demonstrate proper usage to the rest of the class.

In the next activity the children hold an open house where each family describes its section of the house to the other families.

The families then carefully study their family histories in order to learn about traditional Japanese family structure. A comparison of a Western culture family tree with a Japanese family tree provides a keen insight into their roles. An authentic Japanese register and photograph album provide models for the registers of the five families; a son of one family marries a daughter of another with the family changes recorded on the registers.

Another change takes place—the father retires. Each family holds a short ceremony during which the father passes the Family Guide and authority on to his eldest son.

The final activity summarizes the unit as a whole and each family makes a scrapbook reflecting its history and experiences.

THE CITY — Kindergarten — Grade 3

THE CITY is about "cityness." Its purpose is to help young children form an idea of what a city is, what happens in it, how it changes. **THE CITY** is not planned to teach specific facts about cities but rather to make children aware that the form of the city and the life of the city are related; that the city is a dynamic assembly of people and their living and working environment.

THE CITY includes 16 sets of activities which will cover a 2-3 week period of intensive study (1 to 1½ hrs. per day). The following overview is a brief narrative outline of the activities in the program.

Overview:

The unit begins with a film about cities and city living through the experiences of three children in different American cities. First the class views the film without sound and discusses what they have seen. The film is shown again—this time with sound—and new questions are raised in a second discussion. Emphasis is on the city as an environment.

Next, small groups of children play with the city model in an unstructured situation, and the aerial photographs of the unit are introduced.

In the next activity, the class is divided into two groups: the kids from the east side and from the west side. Each group has a set of pictures of its side of town. The two sides of town visit each other to find out what they have in common and to learn more about the city in general.

The children build picture sets in which each set of pictures contains a particular theme and they consider the intersecting ideas that have been developed. It is a game, like Scrabble in form, using pictures instead of letters.

The teacher also presents sets of picture "postcards" which are grouped according to a common idea and the children try to discover what the idea is.

The children take a walking tour of the school neighborhood and build a model of the school neighborhood using

the blocks and magnet board. Using the model of the neighborhood that the children have built, the teacher demonstrates how the model of the city can be translated into a map of the city. The children complete the map and develop a key for it.

The next four activities involve the aerial photographs: detecting and identifying elements; using city road maps to find things in the photographs; making a city map from the photographs; comparing and interpreting the photographs. The children again see and discuss the film, "My City" in terms of the lives of the three children in it. Emphasis is on the nature, diversity and quality of lives in a city.

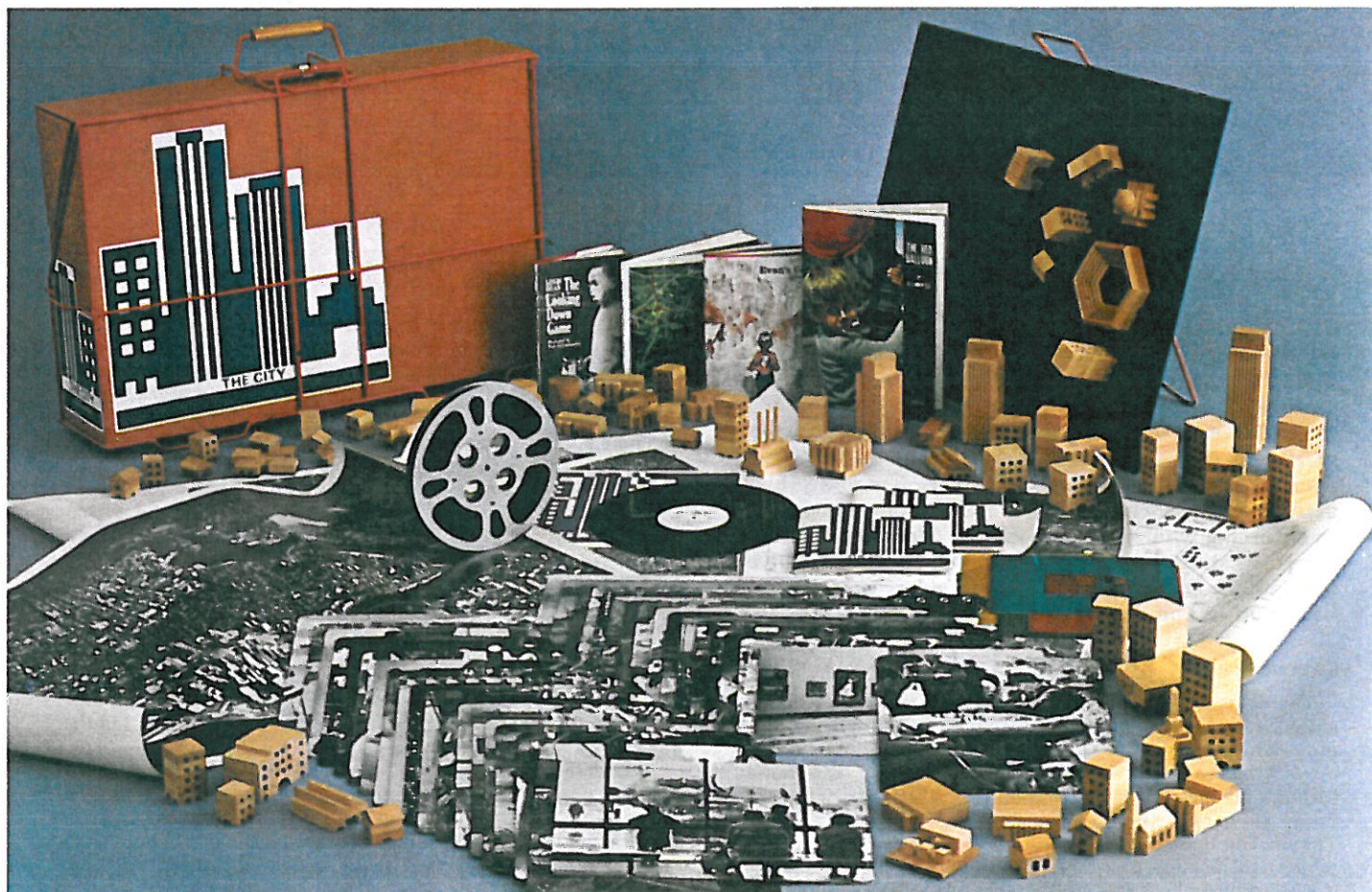
The children play a game in which a "magic window" is placed over a section of a city map; they discuss what they see happening. Using pictures from the picture pool, the children build as large a story as they can about the city.

The children try to identify simple city sounds from the record included in the unit. Following that, they try to analyze and interpret more complex sounds. Finally each child draws a picture of one of the sounds.

In order to convey a sense of the many specialized roles and the interdependence of people in the city, the children stage an accident identifying and playing the roles of the people who would be involved.

To make children aware that men make and change cities, groups of children work with the model to plan and build a brand new city. Each group submits its design to the rest of the class for discussion. Maps can then be made of the various designs.

The final activity is designed to make the children aware of the personal impact of growth and change in the city and give them a sense of the problems involved. As individual residents within a city neighborhood known as "Five Corners," the children try to solve the problem of how best to route a new highway through their neighborhood. Parents help their children develop personal solutions, then the students try to arrive at a common solution.



THE CITY Contents:

4 books: *The Red Balloon*, *Evan's Corner*, *How to Read A City Map*, and *The Looking Down Game*.

Picture Pool: 36 mounted photographs (11" x 14").

Aerial Photographs: 4 — 40" x 50" views of Boston, New York, Los Angeles, and Washington, D.C.

Magic Windows: 3 — children use these to see what is going on in the aerial photos.

LP Record: 1 (12") city sounds.

City Model and Chalkboard: 75 wooden buildings of different functional types. Buildings magnetically attach to a tiltable table for class viewing. Roads, etc. can be drawn on the plate with chalk.

Five Corners' Layout: Large layout used in city planning problem and ditto masters to be used for supplying student desk copies.

Film: *My City* (20 minutes 16mm sound, color).

Teacher's Guide: 64 pages.

Carrying Case to store and organize materials.

Price: Complete Unit \$557.00. Unit without 16mm film \$357.00.

JAPANESE FAMILY Contents:

Religious objects: Brass Bell, striker for bell, cushion, incense burner, incense, Buddha statue, ancestor tablet.

Clothing: Boy's kimono, girl's kimono, obi sash and bow, sash for girl's kimono, handkerchief, sash for boy's kimono.

Shoes: Geta (2 pair), slippers (1 pair), boy's black tabi (1 pair), girl's white tabi (1 pair).

Decorative objects: flower bowl, clay, dried flowers, scroll.

Table and tableware: soup bowl with lid, pickle plate, rice bowls (2), bean curd soup packets (10), child's chopsticks in box, bamboo chopsticks (5 pairs), table.

Japanese books: magazine, comic books, poetry book with translations, 35 calligraphy brushes, calligraphy kit with instruction chart.

Family album: Reproduction of authentic Japanese photo album.

Record: 12" LP Sounds of Japan.

5 Family Guides: directions to fathers for doing lessons and role cards for family members.

15 Family Histories of the five classroom families. *Teacher's Guide*, 34 pages.

Carrying case to store and organize materials.

Price: Complete without 16mm film — \$495.00.

Option: Film 16mm, sound, black and white, *The Japanese*. — **Price \$275.00.**

HOUSE OF ANCIENT GREECE Contents:

Authentic Coin and Pottery Shard.

Two filmstrips.

Printed material for each of the six archeological teams including photo find booklets, research guides and archeological notes [summarized from Dr. Robinson's notes].

Books: *Archeologists and What They Do*, *Everyday Things in Ancient Greece*, *Classical Greece*.

Artifacts: 2 pottery cups, discus thrower plaque fragment, metal sling bullet, mosaic stones, mortar & pestle, spoon, earrings, chiton and sash, statue of Athena, loom weight, Fibula (2), fishhook, nail, lamp, coins (3), lekythos, Head of woman, strygil, goat statue, aryballos, horse ring, wax tablet and stylus, knuckle bones.

Sketches: 5 villa sketches and a floor plan.

Teacher's Guide: 60 Pages.

Carrying case to store and organize materials.

Price: Complete unit \$525.00.

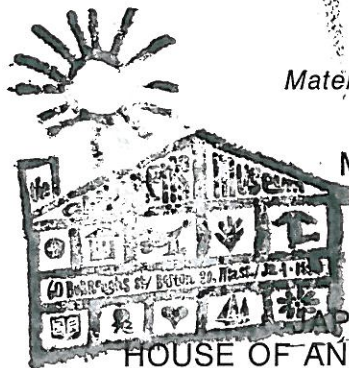
ORDERING INFORMATION

Prices and Terms: Prices are subject to change without notice. Terms are net 30 days. All materials are shipped f.o.b. shipping point. We normally prepay transport charges and add them to your invoice. Federal and states taxes, if and when applicable, are added to your invoice.

C.O.D. requests cannot be honored.

All orders will be shipped the best and most economical way unless you specify otherwise.

Materials on Approval: When specifically requested, materials will be shipped on 30-day approval. An invoice marked "On Approval" will be mailed after the materials have been shipped. If you wish to return the materials ordered within the 30-day approval period, you will be billed only for the shipping charges incurred by AS&E. All materials must be returned in saleable condition.



**MULTI-SENSORY LEARNING UNITS
FOR SOCIAL STUDIES**

THE CITY — KINDERGARTEN — GRADE 3
JAPANESE FAMILY — INTERMEDIATE GRADES
HOUSE OF ANCIENT GREECE — INTERMEDIATE GRADES
AND HIGH SCHOOL

