

The Guide and Ideas to Help Use It Effectively

Since the Guide is made up of three lessons, it can be used in a program once a week or over three or more weeks. If limited time is available, it can be useful to present even one or two of the lessons.

- Each lesson contains the following parts: Goals, Background, Vocabulary, Materials, Activities, Assessment, Resources. and Background for each section helps teachers or parents to lead students in the questions and suggestions for analysis contained in the Learning Activities.
- In schools, the Guide and coloring book can be used as part of a social studies segment on Latin America or in World Cultures classes. Of course, individual teachers may relate and adapt the lessons to the “Learning Standards” requirements of their locality. Parents can use the Guide in more informal ways according to their discretion. The social dimensions of the Guide also make it appropriate for a Sunday school class.
- Recommended grade levels for use of the Guide range from grades two to five but some teachers have used parts of the lessons effectively with kindergarten and grade one.
- Activities in Lessons 2 and 3 of the Guide relate to one another but teachers can adapt each lesson to the levels and needs of a particular class. Arts and crafts from other countries and cultures could also be incorporated as examples in lessons 2 and 3.
- The bilingual text of Maya Arts and Crafts of Guatemala/Artes y Artesanías Mayas de Guatemala coloring book makes it especially useful in multicultural and Spanish language classes.

A number of the lessons recommend using examples of Maya traditional arts as part of learning activities (see Resources for information about a Teacher’s Kit containing various crafts.) But even if no examples are available, activities are given for use of the guide with only the coloring book drawings. For Lessons 2 and 3, two downloadable and printable drawings are provided. Enlarged copies (at least 11"x 17") of illustrations in Maya Arts and Crafts of Guatemala are also useful. Images showing Maya textiles from other crafts books and websites help to facilitate discussion.

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For the Parent's and Teacher's Guide: Parents and Educators are encouraged to reproduce this Guide for use in the classroom or at home with children. If you use these materials, please email: manderson@igc.org. Please write me if you find this guide helpful. Feedback and suggestions for improvements are welcome!

For *Maya Arts and Crafts of Guatemala/Artes y Artesanías Mayas de Guatemala Coloring Book*: After purchasing at least one copy, educators may photocopy individual drawings from *Maya Arts and Crafts of Guatemala/Artes y Artesanías Mayas de Guatemala Coloring Book* for students in a classroom setting. (Please do not make copies of the whole book.) Those making use of this privilege are invited to consider a contribution of any size toward printing coloring books for children in Guatemala. Checks should be made out to our fiscal sponsor, Rights Action (with Pro Arte Maya written on the "memo" or "subject" line). Send contributions to: Marilyn Anderson, 34 Nicholson Street, Rochester, NY 14620. All checks are forwarded to Rights Action.

Introductory Notes to Teachers and Parents

Teaching to increase children's capacity to appreciate the diversity of the peoples of the world!

Thanks to students in Rochester, NY schools who inspired these lessons.

All lessons designed for use with grades 2-5 or according to judgment of teacher.

The coloring book and this guide speak to the important place of arts and crafts in the lives of the Maya from thousands of years ago to the present. The lessons in this guide were developed in the belief that crafts through out the world, including Maya crafts, give us lessons about diversity, simplicity, and ecology and they can help children to form a connection not only to the Maya but to our own agricultural and pre-industrial past. They can, as well, serve as a counter balance in our lives that often are overwhelmed by technologies.

This guide is intended primarily for teachers and parents who live in Canada and the U.S. The introduction in the coloring book also gives ideas about how the coloring book can be made more meaningful.

The teacher's guide and coloring book are designed as tools and resources to help children:

- increase empathy and respect for people of other cultures
- build consciousness about handmade traditional arts and crafts, their meaning, and importance to the Maya
- realize how the Maya teach us lessons about ecology

Although this guide concentrates on Maya arts and crafts and their meaning in our multicultural world, we hope that with your students you will investigate other dimensions of Maya culture such as their stories and fables, architecture, music, calendar system, their ancient glyph writing system and much more...

Lesson 1 - Appreciating Diversity: **A multicultural lesson based on the traditional clothing of the Maya**

Note to teachers or parents:

This lesson's activities and discussion may be done by either:

- only using the Guide and coloring book drawings
- or using the Guide and the coloring book drawings and incorporating activities with Maya crafts consisting of one or more huipils and palm hats (see Resources)

Goals

Students will discuss and learn

- about the importance of traditional clothing to the Maya of Guatemala
- about what diversity in wearing clothing can teach children in the USA and Canada
- about respecting the rights of people to dress in ways that are different than our own



A girl of Nebaj wears her traditional elaborate hair decoration, patterned huipil, sash, skirt and shawl.

Background

Empathy and respect for diversity helps people who come from different cultures and backgrounds to live together in harmony and to appreciate the talents that each offers. Empathy and respect also help us to have feelings for others who look different from us, speak different languages or dress differently.

How and why others wear distinctive clothing is complicated by the vastly different customs of clothing use throughout the world. In this lesson we are looking at Guatemala, Canada, and the USA, and concentrating on the important place of traditional dress in the lives of the Maya in Guatemala and what this can teach us.



With a ribbon wound around her hair, a young woman of Joyabaj wears her huipil while embroidering a second one with a similar pattern

Some areas of Canada and the USA have large multicultural populations who have come from many countries. On smaller scale, Guatemala is a multicultural country of about 12,000,000, including both the Maya people and other groups. As the indigenous (native) inhabitants, the Maya count as their ancestors people who arrived from Asia beginning around 12,000 years ago. Around 500 years ago, they were conquered by the Spanish. Later Africans arrived as a result of the slave trade. Today Guatemala's population is made up of the Maya, (about 60% of the population), those of Spanish and other European background, many of mixed Maya and European blood, others originally from Africa and a small number from Asia.

Maya people in Guatemala retain many of their ancient customs and beliefs, and speak a total of twenty-two languages. They also wear distinctive clothing, called traditional dress, which is used many places and has varied colors and patterns, some of which date back millennia (see pages 1, 2, 5, 6, 7). By keeping this tradition, they gain a sense of belonging and show pride in their culture. Maya children learn about how to wear this clothing from their mothers and fathers (page 21). To make it, thousands of women and men weave cloth using several kinds of looms (see pages 7 and 8).

Weaving, embroidering and sewing their clothing also allow the Maya to develop their craft skills and creativity. Doing this gives individuals a chance to express themselves and show their talent. Many would even say it is a universal human right as well as being an essential human quality to develop one's creativity. Like the Maya, indigenous people in other parts of the world also use their abilities and imagination to produce their own traditional clothing.

All Maya clothing has cultural significance but the upper garment of women, the handwoven huipil, is so special that it is often considered a work of art. And its designs can have symbolic meaning and identify the origin and group of the wearer. See women and girls wearing the huipil on pages 1, 2, 5, 7, 9, etc along with Coloring Book cover drawing.

In Canada and the USA ads showing “fashion” (ways of dressing that change from year to year) frequently influence what children and adults decide to wear. This differs from the custom of the Maya to wear clothing in keeping with longstanding traditions and which vary from town to town (**as seen in many coloring book drawings**). Women’s hair decoration alone can show big changes from town to town and even from village to village. The coloring book also shows that the traditional clothing items of the Maya--their huipiles, hats, bags and sandals look very different from the factory-made garments worn by most people in Canada or the USA (or by non-Mayan Guatemalans, too). boy from Jacaltenango

Hardly anyone would like to think of everyone in the world dressing just alike. Try imagining millions of people all in the same uniform or in similar jeans and tee shirts! Learning more about why the Maya have another kind of clothing from ours, appreciating its importance to them and why they want to continue wearing help us to understand them. And it can encourage us to think about our own clothing and why we wear it. Many think the world becomes a more wonderful place when people dress in different ways. The beauty of Maya handmade clothing makes a unique addition to that aspect of the world’s diversity.

Looking at our own ways of dressing, we often can see the creativity in how both young people and grownups, use and combine articles of clothing. We also form a part of the multicultural rainbow of possible ways to use clothing everywhere!



A boy from Jacaltenango wears a palm hat made by a local artisan.



A Maya weaver wearing a palm hat offers blankets for sale.

Lesson 1 - Appreciating Diversity

Vocabulary

Crafts: Items made by hand with skill and artistry. Such items may be useful to help in daily living, be made for decoration or have religious meaning.

Culture: The customary beliefs, manners, art, music, food, language and the items commonly used by a particular group can all contribute to defining a culture.

Cultural Symbol: An expression, image, or even clothing that helps us to recall the meaning of the customs or way of life of a particular group.

Customs: Usage or practice common to a large or small number of members of a group or to people in a particular place.

Diversity: The condition of being different or having differences. In relation to people, the condition of those who are different from each other because of origins or history.

Empathy: Capacity of someone to understand and accept the feelings, ideas or way of life of others.

Huipil: The upper garment worn by Maya women of Guatemala, of various sizes and shapes but often hand woven on the backstrap loom and made with distinctive traditional patterns.

Human Rights: Relating to privileges that should be common to everyone including the right to live in peace, receive education, have access to clean water and receive respect from others.

Indigenous: Pertaining to the original inhabitants of a particular area.

Multicultural: Pertaining to many cultures.

Materials

A copy of the Coloring Book for reference in presenting lesson material. It is best if each child can have one or two copies of coloring book pages showing Maya wearing traditional dress. **Recommended pages include 1, 7, 9, 11 and 12.**

Pictures of the Maya to help facilitate classroom discussion. Make larger copies (11"x17") of several coloring book drawings such as of a young Maya women wearing a huipil (upper garment) with other traditional clothing (**page 9**)

and a boy and his father (**page 21**) wearing palm hats and their traditional dress. Additional images such as photos in books depicting Maya in traditional dress can also be used.

Maya clothing. If possible, provide at least one each of the following:

- a handwoven Maya huipil for children to try on, and for contrast, a tee shirt with a printed design
- a hand made Guatemalan palm fiber hat (a similar hat from another country will do) for children to try on, and for comparison, a cloth baseball cap. (See **Resources** for information about a Teacher's Kit to accompany this lesson)

Activities

1 – Looking, Writing & Sharing Ideas: About the Maya's Environment and Clothing

This exercise is based on each child having about two drawings from the Coloring Book, but is easily adapted if they have the whole book.

a. Encourage students to observe the Mayas' surroundings (homes, fields, etc.) in their coloring book drawings.

b. Ask them to give the page number and respond if they have any of the following in their drawings:

- houses
- tile roofs
- fields of corn
- mountains
- streets with cobble stone paving
- a girl watching sheep
- artisans who seem to be working at home
- children and grandchildren looking on or doing work themselves
- one motorized vehicle i.e. the back of a bus
- children playing with tops
- a person carrying a load on his back
- a public market shows people buying and selling

c. Using each item or activity in the above list, ask children what they tell us about the environment of the Maya and how they live. Try to elicit answers that are the result of students' analysis, for example: the corn fields by houses tell us the Maya grow a lot of corn and live in the country side. Compare the circumstances of the Maya to how we live, work and play.

d. Ask children to look at their coloring book drawings and then find and write down the names of the different traditional clothing, bags, nets, etc that they see.

For example, on page 21 each of these items are shown. Here is the list of crafts in the coloring book related to different traditional clothing, bags, nets and other hand made items:

- women and girls' traditional garments — huipils, skirts, and hair ribbons
- handwoven blanket
- sandals
- men and boys' traditional shirts, pants and hats
- bags and nets to carry food and other things
- friendship bracelets

e. Ask children to give the page numbers of the drawings where artisans are doing work related to weaving or making another kind of textile. (Hint: the first twelve drawings all show some aspect of spinning or textile construction along with page 29, "Making friendship bracelets of cotton yarns" and page 30, "Making maguey decorations.")

2 - Making Drawings: How and Why the Maya Choose to Wear Traditional Clothes

Ask children to use crayons (not felt pens) to draw themselves in their favorite indoor clothing, such as they would wear to school, including shoes. After they have completed the drawings, ask them to

- compare their clothing to that of the Maya as seen in the coloring book. How is it similar? How is it different?
- discuss what are characteristics of the Maya styles of clothing and sandals to make them look different from ours?

Encourage children to think why they think the Maya wear the styles of clothing seen in the coloring book drawings. Talk about how by keeping this tradition, they gain a sense of belonging and show pride in their culture (see Background).

Ask students to name other countries where people wear their own traditional clothing. If they come to Canada or the USA as immigrants, do they continue to wear it or sometimes stop?

Encourage students to give their ideas about why immigrants might decide to wear the clothing more typical of their new home instead of their traditional clothing.

Ask students if they know anyone who wears traditional clothing. If the answer is yes, perhaps, they can respectfully ask that person about their feelings about wearing it.

Try to think of more possible issues about the clothing of the Maya people, that of our own and of other countries.

3 - Wearing and Comparing: Maya Traditional Clothing and Our Own Styles of Clothing

The following Activities use a patterned hand woven Maya huipil, a factory made tee shirt with a printed design, a hand made Maya palm hat and a factory made baseball cap.

Wear and compare a handwoven Maya huipil with a tee shirt.

(This exercise becomes still more effective if several huipils are available)

- a. **Have Maya huipiles and tee shirts for children to try on and a mirror for looking at themselves.** Let children wearing them stand together — then ask class members, including the wearers, to compare how they feel about the two garments. Mention that in Guatemala, it is customary for only women and girls to wear huipils. Encourage discussion. (Those wearing the Maya clothing may feel embarrassment but that can be a learning point.)
- b. **Ask students to think about and imagine being a Maya in Guatemala.** Some things to consider are:
 - What it would be like to wear a woman's huipil or (man's traditional clothing) daily? Why do they think the Maya place so much importance on wearing it?
 - If Maya immigrants come to the USA or Canada, they can decide to wear or not to wear their traditional clothing here. Ask children to imagine that they are an immigrant who must make such a decision. What would they decide?
 - Is it possible to admire a huipil and still not want to wear it?
 - What kind of clothing or footwear do people in Canada and the USA want to wear? Why?
 - If we wear similar clothing, such as tee shirts with the same design, along with many others, does it give a sense belonging to a community or part of a group? Why or why not?
 - How is this similar or different from wearing Maya traditional clothing
- c. **Sometimes we cannot choose what we wear.** Some Maya women in Guatemala do not have enough money to buy or to weave their huipils. Instead, they only have enough money to buy factory made clothing and they express sadness about that.
 - Ask children to put themselves in the place of such women and give their ideas about why the women would feel sad
 - Ask them to consider how they themselves feel if they are not able to buy the clothes they need and want to wear
 - Is this related to how a Maya woman unable to afford traditional clothing feels? How is it different?

Wear and compare a palm hat with a baseball cap

(Have at least one Maya palm hat and a baseball cap available)

In the same way as above, allow children to try on the hats and look at themselves in a mirror. Let children to stand together — ask class members, including the wearers, to compare how they feel about the two kinds of head coverings. Mention that in Guatemala, it is customary for only men to wear hats and caps.

Some Questions and Answers About Palm Hats:

- How does the palm hat differ from the baseball cap? Answer: The hat has a brim all the way around and the cap has a visor over the eyes.
- How do their materials differ? Answer: The palm hat is made of natural palm which grows on a tree and the cap is made of either cotton or a man made acrylic synthetic. Ask students to think about and discuss these differences further —
- Why is palm is a good material to use to make hats in Guatemala? Answer: A hat made of palm is cool and comfortable to wear in a warm climate, the palm is locally grown and easily obtainable.
- Which gives more shade from the sun - the hat or the cap? Answer: the hat. Would that be a good reason for many men in Guatemala to wear palm hats?
- Why do Maya men and boys would want to wear palm hats. Answer: In their communities, it is customary for men to wear hats.
- Why do some Maya men and boys want to wear a baseball hat. Answer: The factory made baseball cap costs much less than a handmade palm hat and they might like to wear a newer style rather than the traditional hat.
- What are some reasons that the baseball cap is more commonly worn in the USA or Canada? Answer: It is inexpensive, customary, and at least in in the Northern regions, the weather is less sunny.
- Are there more issues about wearing hats or caps? For example, is there more than one way of wearing a baseball cap?

Assessment

Students should have gained understanding about

- * why Maya people want to wear their traditional clothing
- * new ways of thinking about our own ways of wearing clothing
- * the importance of showing respect to others who not only dress differently than we do but speak other languages or eat other kinds of foods
- * extending this lesson to other situations

Lesson 1 Resources

A Teacher's Kit from Terra Experience, a Fair Trade Federation member, includes a huipil and a palm hat to accompany this lesson. See Teachers Resources at www.terraexperience.com.

Books

Children of the World: Guatemala by Ronnie Cummins and Rose Welch and more books about the Maya are available from Terra Experience at www.terraexperience.com

Websites

K'inol Winik Cultural Center Teacher Resources (also check out their Maya studies curriculum)
www.csuohio.edu/kinalwinik/resources/teachers/teachers.htm

Sites with photos of Maya traditional clothing

The Guatemalan Indian Centre: www.maya.org.uk

Guatemalan Maya Weaving (TRAJE EN GUATEMALA):
www.rutahsa.com/traje.html

Further information on related books & websites can be found on the Resources page

Lesson 2. Bags, Baskets, Bundles, Gourds, and Nets: Ancient and imaginative ways for making, storing and carrying things

(Grades 2-5 or according to judgment of teacher)

Goals

To help students

- to appreciate the ancient ways that Maya artisans use to make articles for carrying loads and their methods of transporting things from one place to another
- to have a physical experience of carrying in the manner of the Maya

Background

The Maya, like indigenous people in other parts of the world, have developed ingenious and imaginative ways to carry things using flexible and rigid containers. In spite of the advent of plastics, maguey, leaf fibers, reeds, bamboo, cotton and still other natural materials continue to be utilized by Mayan artisans for twine, ropes, and bags, baskets, bundles, and nets — all flexible containers. Natural rigid containers — gourds — either grow on trees or vines and also have use for carrying, storing, displaying food and other things. Though pottery is another important kind of container, it is too big of a subject for this lesson!



Many of the techniques to make these articles and the ways of using them have been known to the Maya for hundreds, even thousands of years. Such is the case for the methods used by the boy spinning maguey fibers into twine and constructing a bag **see page 11**). (It is a marvel to see even young children utilizing such millennia old techniques.

Weaving cloth on the backstrap loom — more often used for clothing but as well for bags or bundles — began at least 6000 years ago (see page 7). This and many of the crafts used by Maya people today are “ancient” and because they are still made and used today, they comprise a remarkable living heritage.

Drawing A. Maya people carry things with bags, baskets, bundles, nets, tumpline and gourds. Their environment provides all materials needed to make them.

Thus we see the Maya's techniques of making and using articles for carrying and storing has a long history. They have special importance since until the arrival of the Spanish, they had no knowledge of the wheel. Before then, they had to develop means to transport everything they needed themselves, as well as to store food crops and other kinds of articles. But today these ancient practices take on a new value when the Maya's use of them reduces their reliance on plastic bags, ropes and cardboard boxes or other non-biodegradable containers.

Drawings in the coloring book show articles that the Maya people make and use for carrying and storing. **These things can be seen on pages 9, 10, 11, 12, 15, 18,** but you can look for baskets, bags, nets and gourds in other drawings, too! Each child should have copies of drawing A and drawing B, "*Traditional Maya Ways of Carrying Things.*"



Crayon drawing by a Maya child shows a woman carrying a basket.



Drawing done by a Maya child of a man carrying a load of corn with a tumpline and net.

There are five different traditional categories of flexible and rigid containers:

1. **Bags** are generally carried by people with a strap on the shoulder. Less frequently, the strap is put around the forehead and the bag rests on the person's back. Using cotton, maguey, wool, or other natural fibers, they may be quite small or very large. Artisans fabricate bags using net making,

crochet and knitting techniques. Some are simple and basic, while others have designs that are so complex and attractive that they become veritable works of art.

2. **Baskets** carried on the head or with the hands, generally by women and girls, also have importance as storage containers. Maya basket makers use a variety of natural materials, from bamboo to grasses and employ a number of techniques. Size varies greatly from a few inches in diameter and height, to several feet. While most often round, Maya produce a variety of shapes, even square baskets, and incorporate attractive designs.
3. **Bundles** carried by the Maya on top of the head, on the shoulder, over the arm or in the hand, can be very large or as small as a handkerchief tied around money and used instead of a coin purse. The handwoven pieces of cloth they commonly use to wrap them can make the bundle become an article of beauty. A large bundle cloth may also be tied to make a kind of sling over the forehead and with the load inside resting on the back. When buying tortillas from a seller in a market, the purchaser can bring a clean cotton towel to wrap the tortillas rather than getting them in a plastic bag. **See Lesson 4 for a reference about wrapping food and other items in large leaves.**
4. **Gourds** grow in many areas of Guatemala on either vines (they are related to squash) or on trees. It is thrilling to see a gourd tree with numerous gourds hanging from branches like cups. Even if plastic items frequently replace a number of their uses, gourds have a continuing place in Maya life, as containers for things as varied as tortillas, weaver's thread (**see page 7**), or items displayed in the marketplace. Gourds cut in several shapes become large spoons or ladles. To drink water or traditional beverages, Maya like using drinking gourds of several shapes and sizes (**see boy with a gourd in hand in drawing A**). Gourds might have incised or painted designs. One town in Guatemala has fame for its decorated incised gourds (**see page 18**).
5. **Nets** for large loads carried on people's backs, as well as on the shoulder, have long had great importance in agricultural societies. Maya use them to transport their corn and other produce home from fields. One often sees horses with cargo nets on their backs or nets on the top of buses. Maya make traditional nets by hand (**see page 12**) with natural maguey fibers (**see maguey plant on page 11**). The advent of more export oriented agriculture in Guatemala means that all kinds of nets are being used less. At the same time, petrochemical companies now manufacture plastic rope and twine for net making. But in their traditional way, Mayans continue to fashion them of natural fibers.



Drawing B. The Mayas use large and small bundles in various manners that can surprise those unfamiliar with carrying things this way.

Tumplines, along with twine and rope, are vital for attaching to nets or other items to make them more transportable. See example of a water jar carried by a girl with a tumpline and and a rope (**see drawing A**).

A tumpline consists of strap (a type of sling) along with a rope. The strap — often woven of maguey fibers or made of leather — goes over the forehead and in order to carry a load. **As seen in drawing A,** the rope attaches to a net or to other things such as water jar.

In Guatemala, transporting loads using the tumpline and net method may be the only way to haul a corn harvest from steep mountain fields where only a person can go. Maya also frequently use tumplines and nets to carry many kinds of burdens as they walk to and from market.

Twine and rope may be used alone to make loads more transportable, as when tied around a rolled up mat (**see drawing B, which shows a woman with a mat on her head**). Indeed, it is hard to over emphasize the importance of simple rope and twine. Their use began thousands of years ago as shown by section of fossilized twine found 15,000 years ago, in the caves of Lascaux, France. But the earliest known such remains in the Americas date from 8500 to 6500 B.C.

The ancient cultural roots underlying the present day use of Maya crafts used as containers and to transport things become understandable by knowing a little about their history and by looking closely at them.

In Canada and the USA, these customs have largely been forgotten and most people carry items in factory made plastic and paper bags. Few have the need to carry burdens long distances. But when we need to do that, we use backpacks instead of nets and tumplines.

Unlike the past, today, not all Mayans use their bags, nets, baskets, bundles and gourds. New roads and more bus transportation have made their lives somewhat easier resulting in less need to carry heavy loads long distances. Even with this and other changes, crafts and the traditional methods to utilize them still have role to play. Many, both in Guatemala and elsewhere, believe they comprise a cultural treasure.

Lesson 2. Bags, Baskets, Bundles, Gourds, and Nets

Vocabulary

ARTISAN: A person who has skills to perform the tasks from start to finish to make pottery, carve wood, weave cloth or make other kinds of useful and pleasing items called arts and crafts. Another word for artisan is craftsman or craftsmen.

BACKSTRAP LOOM: An apparatus for weaving cloth. It is made with sticks and warp threads stretched between the front stick which is tied to a post or tree, and the back stick, which is attached to a strap around the weaver's waist.

GOURDS: Biodegradable natural containers made from the dried hard rind of fruits from a tree or vine.

INDIGENOUS: Pertaining to the original inhabitants of a particular area.

MAGUEY: A plant with large spiny leaves common throughout Mexico, Central and South America which yields hard fibers for making rope and bags and other items.

HERITAGE: Actual things or ideas, customs, skills, etc. passed on from earlier generations.

TRADITION: The handing down of customs, information, beliefs without written instructions.

TUMPLINE: A strap that people put over the forehead or chest, often with a rope attached to a net used to carry a load carried on.

Materials

- **Copies for each child** of the “Maya Ways of Carrying Things” downloadable coloring and discussion sheets drawing A and drawing B
- **A copy of the Coloring Book** for reference in presenting lesson material. It is best if each child can have one or two copies of coloring book pages showing bags, baskets, net making and gourd decoration.
- **A bag of good size with a strap long enough** to put around the forehead and allow the bag to rest on the back (see sheet A). A handmade Maya net bag is best but a canvas or other type of bag will do, as long as the strap is about 2” wide and about 36” long.
- **Several hand made baskets with flat bottoms** at least 8”- 9” in diameter. Wash cloths or similar sized soft cloths to be folded under the basket

- **Cloths about 40" x 45" or 36" x 36"** to make a bundle. A Maya woven cloth is best one but any colorful cloth of similar size can be used. Use a man's size handkerchief to make a small bundle to wrap coins.
- **Gourds**, small ones of the size used for drinking and/or larger. See Resources for more information about items in a Teacher's Kit to accompany this lesson.

Activities

1 - Maya Ways of Carrying Things

Have copies of sheets "**Maya Ways of Carrying Things**" for each child to color and to discuss. Using the drawing on **sheet A**, ask children to count the different ways Maya people are carrying things. *Hint: you can find a total of ten approaches.*

Answers (**in the drawing, clockwise from bottom left**):

1. boy with gourd for drinking water
2. girl with tumpline to carry pottery water jug and
3. the same girl carries a basket with a handle
4. woman with baby in cloth sling and
5. the same woman carries a basket on her head
6. Woman with arm bundle and
7. she also carries a stack of cloths on her head held together by twine
8. man with bag over shoulder
9. man carrying bag with strap over forehead like a tumpline (beyond him are shown three methods already counted: one women with gourd on her head and two with baskets)
10. woman with tumpline and net

Ask children to look at drawings A and B and notice that only women carry baskets. Maya men do not have the custom of carrying baskets and it would not even occur to them to do it. Discuss this with students.

Using **sheet B**, ask children to name the ways of carrying in this drawing. Hint: there are five ways in all.

Answers:

1. on womens' heads: a basket, a rolled up mat tied with twine a bundle, and a bundle.
2. bundles supported with tied ends over the forehead of two women
3. one bundle on a man's shoulder,
4. a bundle over a girl's arm
5. what way of carrying is left out of the list of answers? Answer: Carrying a basket using hands and balancing it on the hip.

2 - Making Drawings About How We Carry Things

Ask children to use crayons (not felt pens) to draw some of the following:

- * themselves, friends, family — showing how they carry various articles
- * a UPS delivery person, a pizza delivery person or anyone who carries things as part of their job

Discuss with students to the ways their drawings showing people carrying things compare to those of the Maya as seen on the coloring sheets or in the Coloring Book. How are they similar? How are they different?

3 - Easy to Do! Carrying a Load with a “Tumpline”

See drawing A, look for the man with the strap of his bag over the forehead, this is called a “tumpline.” As seen in drawing B, a bundle can also be used in tumpline fashion — but is harder to do.

Using a fairly large bag with a wide shoulder strap long enough strap (2-3” wide and about 36” long) can double as the tumpline . A handmade net bag is best but a canvas or other type will do. The shoulder strap is simply put around the forehead and the bag rests on the back. Carrying a bag in this way can elicit gales of laughter from children but such reactions can become points of discussion.

Ask students

- what is the benefit of using the tumpline method to carry things? Answer: the tumpline allows people to carry very large or heavy loads more easily, because the muscles of the upper body are used very efficiently. Carrying with with a tumpline allows people to carry loads that are sometimes larger than themselves! This cannot be done if you are carrying something in front or over the shoulder.
- why is it not done in the USA or Canada? Answer: most of us have either plastic or cloth bags for their ordinary carrying needs and vehicles to transport larger articles. And many people seldom walk to do errands. They might even take their car to a nearby corner store!
- how would they would feel carrying loads down a street using the tumpline method?

4 - Easy to Do! Carrying a Basket

The secret of carrying a basket on the head is: first, fold into quarters a washcloth, or a piece of soft cloth such as flannel and place it on the head. (The traditional way of arranging the cloth that goes under the basket is more complicated but this simple approach works well with a small or medium size basket.) IMPORTANT: the basket must have a flat bottom!

Put the basket on top of the cloth — something to weigh down the basket a little will help make it more stable, but is not necessary. By walking with a straight back the basket almost magically will not slide off the head.

Ask children

* if as they carry a basket, they can feel how important it to have good posture and that a basket WILL ONLY stay on their head if they do

* how would they feel carrying a basket on their head while walking down the street?

5 - Easy to Do! Making and Carrying a Bundle

The most simple way to make a very small bundle is by using a cloth handkerchief. Put a few coins in the center of the handkerchief and tie together first two opposite corners, then the other two opposite corners. You will then have a very small bundle! You can carry it in your hand or put it in your pocket.

To make a bigger bundle, take a larger piece of cloth (about 40" x 45" or 36" x 36"), put an item such as a sweater in the middle of it. In the same way as in making the small bundle, tie together two opposite corners and the other two opposite corners. The resulting bundle can be put over the arm like a purse through the space under the knot on top (see sheet B, look at the girl in the right hand corner).

6 - Discussion: How & Why We Carry Things

Ask students to talk about why it is more common in for people in Guatemala to carry loads with the tumpline or some other way. Answer: *BECAUSE THEY HAVE TO CARRY THINGS!*

Some people in Guatemala and Central America live in areas without roads, and fewer people have their own vehicles than in Canada or the USA.

Pretend that plastic or paper bags had never been invented — how would people carry things? Hint: name all the ways of carrying things seen on sheets A and B.

Discuss the pros and cons of walking and carrying things yourself as contrasted to mainly carrying things using motorized transportation —

Assessment

Children should be able to

- show good understanding of how making and using bags, baskets, bundles, nets, and gourds are important in the lives of the Maya
- discuss how looking at ourselves and how we carry things tells a story about us, and how people in other countries who carry things in their own ways tell us about themselves

- make a small bundle with coins or a small item inside, tied in the manner described above
- carry a basket on their head easily across a room

Lesson 2 Resources

A **Teacher's Kit** from Terra Experience, a Fair Trade Federation member, includes Maya shoulder bags, gourds and a bundle cloth to accompany this lesson. See Teachers Resources at www.terraexperience.com.

Books

Technology in the Time of the Maya by Judith Crosher. Raintree, Steck and Vaughn, 1998. Has sections on crafts, architecture, food use, the calendar, glyph writing system and more. Excellent!

A Life of Their Own: An Indian Family in Latin America by Aylette Jenness & Lisa Kroeber. Thomas Y. Crowell Company, 1975. Gives a picture of many aspects of Maya daily life, including carrying, goods and the part that crafts play.

Websites

Native American Technology and Art: www.nativetech.org

- **Cordage** (includes short animation of how to make twine): www.nativetech.org/cordage
- **Weaving** (includes extensive site on Native American basketry): www.nativetech.org/weave
- **Finger weaving** (includes images and descriptions of Native American tumplines): www.nativetech.org/finger/belts.html

Further information on related books & websites can be found on the Resources page

Lesson 3. Put It in a Reusable Bag: Relating Maya Arts and Crafts to Ecology (Grades 2-5)

Best used after Lesson 3: Bags, Baskets, Bundles, Gourds, and Nets

Goals

To help students

- to realize that Maya people can teach us about taking better care of our environment and Mother Earth through their use of long lasting bags and nets made of natural materials
- to gain understanding of how different materials biodegrade or do not decompose well

Background

Often the Maya themselves know how to make the bags and nets they need. Artisans in many places throughout Guatemala construct them from several kinds of materials, including wool and cotton, (**see page 10**) and many also have attractive traditional designs. The boy making a small shoulder bag (**see page**



In a Maya household, bags and ropes made of maguey fibers, hang from a natural hook made from a tree limb.

11) and the man fashioning a large cargo net (**see page 12**) use the biodegradable fibers of the large leaves of maguey plants. (**See background on page 11.**) Such bags, or anything made of natural materials can biodegrade without polluting and become a part of the earth again through decomposition. Of course, growing the plant materials for making bags and other crafts must be managed carefully to replenish what is used.

Maya bags made of maguey fibers

The Maya make bags and nets that last a long time, and by reusing them they have less need of plastic bags. Before about thirty years ago, they hardly used plastic bags or anything of made plastic at all. Even today, in Guatemala a customer buying a food item in a market or store might receive it wrapped in a large

banana leaf! Shoppers bring their own bags or other containers to carry home purchases. Yet now in Guatemala — as in Canada and the USA — plastic bags are often given to buyers. At the same time, more people everywhere (including the Maya) are using long lasting bags of natural materials as they become aware of their ecological importance.

Still, large numbers of people use plastic bags resulting in litter that pollutes the environment. Because plastic does not generally biodegrade, such trash makes cities and the countryside ugly and can contain harmful chemicals that damage the environment. In Guatemala, plastic garbage may be at times burned, releasing poisonous smoke.

Research to produce biodegradable plastics bags has had some success and various stores in England give them to customers. Still, nearly everywhere, even if stores and supermarkets often give shoppers recyclable bags they are non-biodegradable. Long lasting bags win out as the best choice for those who want to contribute to the health of our Mother Earth. The Mayas' bags and nets made of natural bio-degradable materials give us a good example to follow.

Knowing about the amount of time required to biodegrade different kinds of garbage helps us to realize the great importance of recycling and reusing as many things as possible. The following short list shows the length of time required to decompose the following materials:



paper ---> 1 month

cotton cloth ----> 5 months

rope made of sisal -----> 14 months

a piece of wood -----> 13 years

a tin can -----> 100 years

an aluminum can -----> 500 years

a plastic container -----> it is not known how long it will take to decompose, perhaps never!

Bags made from plastic for sale in a Guatemala market. In another area of the market, bags made of natural materials would be found.

Lesson 3. Put It in a Reusable Bag

Materials

* **“Maya Ways of Carrying Things” drawing A and drawing B downloadable coloring and discussion sheets** — to reinforce the content of the lesson

* **A copy of the coloring book** for reference in presenting lesson material. Copies of drawings on pages 10 and 11 may be distributed to children

* **A shoulder size Maya maguey net and/or cotton bag and an ordinary plastic shopping bag.** A maguey bag from Guatemala is best, but if such bags are not available, a net bag from another place or a canvas bag will do. See Resources for more information about Maya bags in a Teacher’s Kit to accompany this lesson

Vocabulary

BIODEGRADE: the process that allows materials to break down into smaller parts and become part of soil again.

ECOLOGY: the science or study of the pattern of interrelationships between plants, animals, and their environment or surroundings.

ENVIRONMENT: the condition of the air, water and soil

MAGUEY: a plant with large spiny leaves common throughout Mexico, Central and South America which yields hard fibers for making rope and bags and other items.

Activities

1 - How the Maya Use Natural Materials

- Which of the crafts shown in the coloring book biodegrade when they are worn out or no longer usable? Answer: Because they are made of natural materials, all of the crafts biodegrade within fifteen years-- except tinware, glass and glazed pottery.
- What happens if the natural materials for Maya crafts (or any kind of craft) are over used? For example, if artisans use too many maguey leaves for making bags ? Answer: A shortage of materials could mean that the artisan would be unable to continue to make crafts.

2 - Comparing Natural Fiber Bags with Plastic Shopping Bags

Part A - Watch it Biodegrade!

Find out if it possible to bury an old cotton canvas or maguey fiber bag and a plastic bag on the school grounds side by side. It is very important that the old bag be of natural fibers — not of petroleum-based fibers that will not biodegrade. This project is adapted from “Biodegrading In The Wildlands-Can You Dig It?” (see Resources) that describes the activity as "An experiment to examine the effects of biodegradation (that) involves burying different items in the school yard and then examining the changes that take place. Through this examination you can determine which materials are more and less biodegradable.”)

Part B - Why Use Plastic? Why Use Alternatives?

- Ask children compare carrying a canvas or Maya bag to a plastic one. Is one more pleasant to carry than the other or are they about the same? What are some of the reasons?
- Help students to identify other reasons for choosing to carry groceries in either plastic, paper, cloth or canvas bags. Include ecological issues of recycling and biodegrading in the discussion.
- Plastic grocery bags are everywhere — in contrast, can it be hard to find a cloth or canvas shopping bag? Answer: Yes, only some grocery stores sell them.
- Cloth or canvas bags cost quite a bit of money. Does that make it harder for them to be used by a lot of people? Answer: Yes, many people will use the bags that are given to them at the store instead of purchasing one special bag to use for shopping.
- Do some stores want you to use plastic bags? Answer: Yes. Some stores print their name in large letters on the side of the plastic bags they give away. When these bags are used, they become free advertising. Cloth bags that are reusable generally do not have a store name printed on them.
- Try to estimate how many plastic bags a year could a family save from being thrown in the land fill if they regularly use net or cloth bags? Answer: This is hard to calculate precisely but it is possible reach an estimated number.
- What happens to our plastic bags and other articles when they are no longer usable? Answer: Some are recycled and many more are put in the garbage.

- Where is it possible to recycle some kinds of plastic bags ? Answer: Many supermarkets offer the opportunity to recycle bags.

2 - What Does Another Country Do?

In Ireland, the government requires stores to ask a deposit of at least ten cents be paid every time a shopper receives a plastic bag. Officials there wish to have less plastic littering cluttering streets, roads and fields.

- * is this deposit a good idea?
- * what could money collected by plastic bag deposits be used for?
- * would such a practice stop the littering of plastic bags in our neighborhoods?
- * name the places we see plastic litter in our neighborhoods
- * what are some of the ways this trash affects our environment and our health?

Assessment

Students should be able to discuss

- the qualities that contrast biodegradable bags and other items with less ecological ones
- the impact that plastic makes on our lives and our environment
- how biodegrading works
- why we make the choices we do about what kind of bag to use

Lesson 3 Resources

A **Teacher's Kit** from Terra Experience, a Fair Trade Federation member, includes Maya bags to accompany this lesson. See Teachers Resources at www.terraexperience.com.

Books

5 0 Things Kids Can Do To Save the Earth

Available from: The EarthWorks Group, EarthWorks Press, PO Box 1117, Ashland, OR 97520

Some sample activities from the book can be found at www.dep.state.pa.us/dep/deputate/enved/EnviroEd/Can_Do/50things.htm

The Bird that Cleaned the World by Victor Montejo. Curbstone Press, 1992. Contains two ecological moral tales "The Bird that Cleaned the World" and "Who Cuts the Trees Cuts His own Life" Available from www.curbstone.org

El Pajaro Que Limpia El Mundo y Otras Fábulas Mayas / No' Ch'ik Xtx' Ahtx' En Sat Yib' Anh Yax Te'. Original Popti' Mayan/Spanish version of The Bird that Cleaned the World by Victor Montejo. Available from Yax Te' Books: www.csuohio.edu/yaxte/books.html Look under Literature and Language Backlist (page includes a downloadable PDF catalog).

Websites

Biodegrading In The Wildlands-Can You Dig It? by Jane Schmidt. Order by email to jschmid@dupo.stclair.k12.il.us
An on-line version can be found at http://lewiscenter.org/force/1070/subprojects/Wildlands%20Curriculum/www_biodegrade.htm

Other helpful ideas and projects to teach about the concept of biodegrading and plastic:

Plastics in the Water: Is That A Yummy Jellyfish I See?
http://www.beworldwise.org/teachers/plastics_in_water.php

Further information on related books & websites can be found on the Resources page



