Unit A

Rain Makes Applesauce: An Integrated Unit For Second Through Fifth Grade Students

INTRODUCTION

The apple is a fine theme for a unit for second language learners because it is familiar to students in many cultures and liked by all. The inclusion of activities for cooking and eating food, the universal motivator, assures the direct involvement of everyone.

This unit was inspired by a wonderful picture book called *Rain Makes Applesauce*, by Julian Scheer and Marvin Bileck (1964). In the book, the authors blend lots of silly talk ("Monkeys mumble in a jelly bean jungle") with marvelous picture science lessons showing how rain really does make applesauce. This unit, like the book, mixes fun with language and learning about many subject areas, through many mediums, as can be seen on the planning web, Figure A-1. Through science, math, literature, art, field trips, and cooking experiences centered on the theme of apples, students will learn and use language and concepts of the plant cycle, states of matter, arithmetic processes, measurement, and folk history of the United States.

Fall would perhaps be the most appropriate time for teaching this unit, because of the possibility of seeing apples as they are harvested or visiting a cider press. However, because of the year-round availability of apples, any time will do. In order to give you the opportunity to select appropriate activities, we have deliberately overplanned the unit, providing more activities than could possibly be used in one two-week period. We encourage you to select those activities most relevant to the interests and needs of your students. We invite you to have a wonderful time!

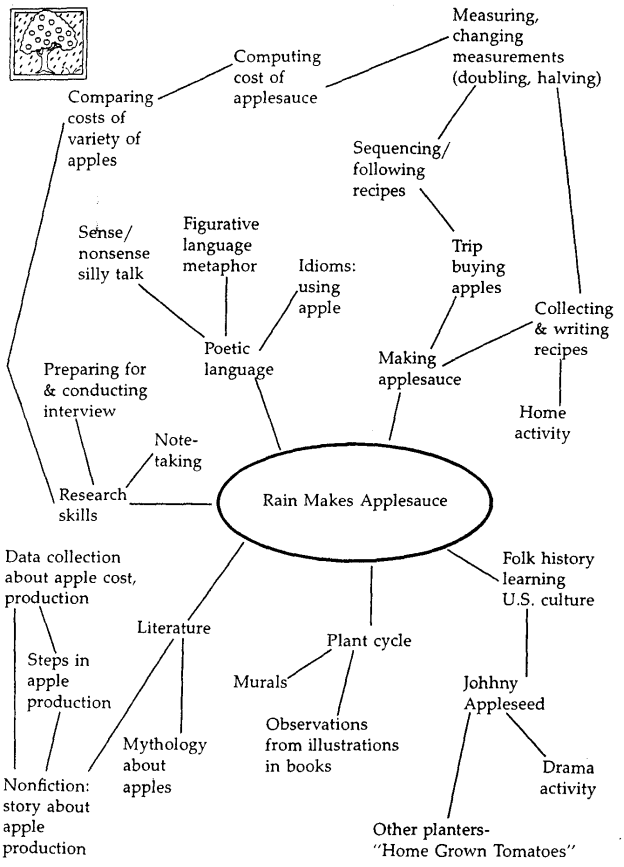


Figure A-1: Unit Development Web

UNIT OBJECTIVES

The objectives for this unit selected from objectives set forth in the *Basic Curriculum Content for Georgia's Schools* for grades two through five. Language objectives are featured, but content area objectives in science, social studies, mathematics, and art are incorporated as well. Objectives for each unit activity are shown in Figure A-2. A suggested two-week schedule for the unit is included in Figure A-3.

Activities:	1. Literature: *Applesauce*	2. Language Experience	3. Before the Trip	4. During the Trip	5. After the Trip	6. Plant Cycles	7. Johnny Appleseed	8. HomeFUN	9. Applemath	10. Appletalk	11. Applelit
Language:											
1. Follows oral directions	•	•	•	•	•	•	•	•	•	•	•
2. Interprets nonliteral meanings of words	•										•
3. Interprets instructions		•		•	•	•	•	•	•		•
4. Selects and uses reference sources	•		•		•	•					
5. Makes predictions and comparisons	•		•	•	•				•		
6. Demonstrates an interest in literature by choosing appropriate books	•										•
7. Uses creative arts to interpret literature	•	•				•	•				•
8. Participates in the writing process	•	•	•	•	•	•		•			•
9. Shares and discusses ideas gained from independent reading			•			•					•
10. Distinguishes between fact and opinion	•	•	•	•							
11. Acquires and uses vocabulary related to the theme	•	•	•	•	•	•	•	•	•	•	•
Science:											
12. Demonstrates heat as change agent	•				•			•			
13. Describes chemical and physical change	•				•			•			
14. Describes models of interdependence of living things					•	•					
15. Describes mixtures and solutions	•				•			•			
16. Describes states of matter by special characteristics	•				•			•			
17. Reads information in tables, charts, and graphs				•		•		•	•	•	
18. Describes changes in living things and in systems	•	•	•	•		•					
Social Studies:											
19. Describes cultural expression of values							•	•			
20. Identifies selected cultural regions to study in regard to geographic patterns, climate, topography, natural resources								•			

Activities:	1. Literature: *Applesauce*	2. Language Experience	3. Before the Trip	4. During the Trip	5. After the Trip	6. Plant Cycles	7. Johnny Appleseed	8. HomeFUN	9. Applemath	10. Appletalk	11. Appletit
21. Identifies ethnic groups and linguistic patterns							•	•			
Mathematics:											
22. Identifies different names for numbers: whole numbers, fractions					•			•	•		
23. Determines pairs of numbers when given relations									•		
24. Selects and applies units of measurement					•			•	•		
25. Determines amounts of money: collections up to $5, amount spent and change up to $1			•	•							
26. Estimates results of measurement or computation			•	•	•			•	•		
27. Identifies geometric shapes						•					
28. Identifies geometric relations						•					
Art:											
29. Draws the outlines and details of forms and objects	•				•	•					
30. Creates artworks that demonstrate an awareness of details observed in the environment	•				•	•					

Figure A-2: Rain Makes Applesauce Unit Objectives

Week 1

Monday	Tuesday	Wednesday	Thursday	Friday
LG GP UNIT INTRO Intro Center A	LG GP Intro Center B	BEFORE THE TRIP LG GP DISCUSSION	THE TRIP TO	AFTER THE TRIP LG GP INTRO ACTIVITIES
SM GPS 1. "SILLY TALK" 2. LISTEN- ING CENTER GROUPS SWITCH	SM GPS 1. PEER CONF., REVISIONS ILLUS. 2. CENTER GROUPS SWITCH	SM GPS RESEARCH	THE FARMER'S MARKET	SM GPS 1. APPLESAUCE (Parent) 2. CENTER (Indep.) 3. THANK-YOU LETTERS (Teacher)
LG GP ASSIGN HOME FUN APPLE RECIPES	LG GP SHARE WRITINGS	LG GP APPLE ESTIMATION TRIP QUESTIONS	LG GP TRIP DISCUSSION	LG GP REMIND ABOUT HOME FUN

Week 2

Monday	Tuesday	Wednesday	Thursday	Friday
LG GP DISCUSS HOME FUN SM GPS REVISE BIND INTO BOOK FOR CLASS/ CENTER	LG GP INTRO SKITS	LG GP PERFORM SKITS	LG GP/IND PLANT CYCLE POSTERS	SM GPS APPLEMATH
LG GP READ JOHHNNY APPLESEED	SM GPS PLAIN SKITS REHEARSE	LG GP PLANT CYCLE INTRO	SM GPS INTRO APPLEMATH/ CENTERS	
IND INTRO CENTER C	IND INTRO CENTER D	IND INTRO CENTER E	IND INTRO CENTER F	IND INTRO CENTER G (Continue centers for 1-2 weeks)

Figure A-3: Sample Schedule for Pull-Out Class or 45 Min/Day of Grade-Level Class

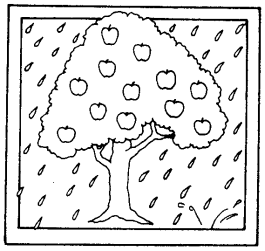
RAIN MAKES APPLESAUCE: OUTLINE OF UNIT ACTIVITIES

Part A: Introduction to the Unit
Activities:
1. Literature: *Rain Makes Applesauce*
2. Writing/Language Experience: "Silly Talk"

Part B: A Field Trip to the Farmer's Market
Activities:
3. Before the Trip
   a. Trip Discussion
   b. Apple Research Groups
   c. Applesauce Estimation Contest
   d. Preparation of Trip Questions
   e. Assessment/Evaluation
4. During the Trip
5. After the Trip: Making Applesauce
   a. Applesauce Activity
   b. Assessment/Evaluation

Part C: More Apples!
Activities:
6. Plant Cycles
   a. Learning about Cycles
   b. Making Cycle Posters
   c. Assessment/Evaluation
7. Johnny Appleseed
   a. Sharing the Literature
   b. Acting out the Story
   c. Assessment/Evaluation
8. HomeFUN—Apple Recipes
   a. Collecting Recipes
   b. Publishing an Apple Cookbook—Options:
      1. Publish "As Is"
      2. Use the Writing Process
      3. Use an Adult Volunteer
9. Applemath
   a. Apple Cost Comparisons
   b. Computing the Unit Price of Homemade Applesauce
   c. Cooking for One or a Million
   d. Assessment/Evaluation
10. Appletalk: Idioms and Figurative Language
    a. Learning about Idioms and Figurative Language
    b. Assessment/Evaluation

11. Applelit Learning Center: Reading, Listening, Talking, and Writing about Apples
    a. The Little Red House
       1. Independent Reading
       2. Listening
       3. Peer Storytelling
    b. Steps in Growing and Selling Apples
    c. Apples of Love and Discord
    d. Apple Recipe Cards
    e. *Apples:* A Wordless Book
    f. Assessment/Evaluation



UNIT ACTIVITIES

Part A: Introduction To The Unit

Groupings:
Small or large group, teacher-led
Individual work with teacher assistance
Materials:
Apple
Knife
Rain Makes Applesauce, by Julian Scheer and Marvin Bilek
Opaque projector or slides (if book will be shared with large group)
Drawing, coloring, and writing materials
Procedures:

Activity 1: Literature—*Rain Makes Applesauce*
Show everyone the apple. Talk about what it is, ask if everyone has tasted one and if apples are grown in everyone's native country. Ask where apples come from. As this discussion takes place, cut the apple into little pieces and give everyone a taste. Practice basic vocabulary (*apple, taste, cut, mouth, good, skin, seed, core*), and simple phrases ("tastes good," "comes from," "eat apples") for beginning students.

Show the students *Rain Makes Applesauce.* The book is a predictable poem that uses nonsense phrases such as the following:

Stars are made of lemon juice
and rain makes applesauce.
I wear my shoes inside out
and rain makes applesauce.
My house goes walking every day
and rain makes applesauce.

Do not try to share the illustrations with the large group. They are full of tiny details that children need to be close to the book to see. Either show the pages on a screen using the opaque projector; make slides of the illustrations; or share the book with small groups. Before reading, name the author and illustrator, and ask children to predict what the book will be about. Ask them if they think that rain makes applesauce. Also ask the students to look for patterns in the language of the book, and, if they are able, to look at the pictures to see if they all tell the same story as the words.

Read the book. Encourage students to join in on the repeated phrase "and rain makes applesauce." You may occasionally need to stop in order to develop vocabulary skills for students who need them, for example, to demonstrate what *mumble* means.

After reading, discuss the pattern of the book: a silly phrase, followed by "and rain makes applesauce." Ask such questions as, "Why are these things so silly?" "Is it silly to say that rain makes applesauce?" "Why?" "Why not?" Elicit descriptions of the sequence of events pictured in the book that shows the relationship between rain and applesauce.

Motivate the students further by giving them a unit overview and by introducing the unit projects, all of which will be centered around the theme of apples: learning about the plant cycle and making posters to show others; going on a trip to the farmer's market to learn more about growing apples; making applesauce; reading and acting out *Johnny Appleseed*, a homeFUN activity that will lead to making an apple cookbook; figuring out how to make recipes for more people or fewer people; studying Appletalk (idioms and figurative language about apples) and Applelit (literature including the apple theme). Mention how interesting the activities will be and how much students will learn from them.

Activity 2: Writing/Language Experience—"Silly Talk"

Return to talking about *Rain Makes Applesauce*. Ask students to write or dictate (depending on student level) examples of silly talk followed by the phrase "and rain makes applesauce." Write these (or have students write them) on strips of lined chart paper. Glue the strips to large drawing paper and have students illustrate the sentences. The finished products can be stapled or bound into a Big Book, the students' own version of *Rain Makes Applesauce*, and added to the classroom or school library. Students will enjoy having their book read out loud, reading it themselves during free time, and checking it out to take home and show off to the family.

Here are some examples of student writings that this activity has elicited:

I eat mice for breakfast
and rain makes applesauce.

All we do at school is play, play, play
and rain makes applesauce.

I can jump a mile high
and rain makes applesauce.

A rhinoceros sleeps in my bed
and rain makes applesauce.

Part B: A Field Trip To The Farmer's Market

For the apple unit, we have chosen to provide a plan for a visit to a farmer's market. You may need to adjust the plan for a destination that is appropriate for your purposes and convenient to your school. The plan can be easily adapted for many other trips, including trips to a cannery, a truck stand, a grocery store, an apple farm, a cider mill or the home of a community resident who has a garden and cans many food items.

Thoughtful advance planning is a must for any field trip. If at all possible, visit the destination ahead of time. At least phone and interview individuals who will guide the group or talk to the students. Prepare these persons for speaking to beginning and mid-second language learners. Explain that they may need to adjust their speech somewhat by speaking a little more slowly and clearly so that students can understand. Encourage them to check whether they're being understood by asking the students many questions.

Activity 3: Before the Trip

Grouping:

Large group, teacher-led

Small, independent groups, with teacher available

Materials:

Paper, pencils, wallpaper samples

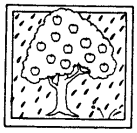
Reference books on apples, e.g., encyclopedias, suggested references at the end of the unit

Procedures:

(a) Trip discussion. Tell students about the planned trip to the farmer's market. Ask if any of them have ever been to a farmer's market, and from those who have, elicit a description of the place and its purpose. Talk about the purposes for the trip, and, with students dictating, list the purposes on the blackboard or on a chart. The purposes are to (a) learn about where apples

come from; (b) learn about how they are bought and sold; (c) collect data about different varieties of apples and their relative costs for use in a later project; (d) study other plants that are used for food (where they come from, what part of the plant is used for food, how they are grown, etc.); and (e) purchase apples for making applesauce.

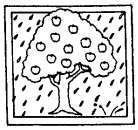
(b) Apple research groups. Assign groups for different areas of data collection, and help each group design forms for data collection. Two sample forms are included.



Comparing Apple Quantities and Varieties

Variety	Quantity	Price	Price per Pound

Figure A-4: Comparing Apple Quantities and Varieties



Other Plants Used for Food

Plant	Part of Plant Eaten	Price	Quantity	Price per Pound

Figure A-5: Plants for Food

Next, have the children conduct research on varieties of apples that are good for making applesauce. Books such as *Apples, A Bushel of Fun and Facts,* and encyclopedias contain such information. Students may also choose to interview experienced cooks (parents, for example) for their expert opinions. If time allows, students can send letters to apple growers asking for information about cooking with apples.

Help the children to select several varieties that would be acceptable, and plan to price these and choose the least expensive, best-quality apples. Also help them estimate how many pounds of apples the class will need to make applesauce. Estimate how many apples will make one pound. Plan to bring a calculator to help with computing unit prices.

(c) Applesauce estimation contest. Introduce a contest to estimate the cost of the materials needed to produce one quart (32 oz.) of homemade applesauce. Assign students to record apple and applesauce prices on their next trip to the grocery store. Once this information has been collected, ask each student to record a guess as to the cost of one quart of homemade applesauce. Offer a prize (free time, a trip to the library, apples, etc.) for the closest guess. Later in the unit, when students make applesauce and compute the unit price, they can check the accuracy of their guesses.

(d) Preparation of trip questions. Plan questions for apple growers/marketers. See that each student has a question to ask. Some students will be more comfortable if the question is written on a slip of paper to which they can refer on the trip. Sample questions might be:

Where were these apples grown?
Who grew the apples?
When were they picked? Who picked them?
What did they cost you?
Why is the price lower if we buy more?
How old does an apple tree have to be to produce apples?
What do you think are the best kind of apples for cooking?
How can apples be for sale all year when they're on the trees only in the fall?

Help students staple several small sheets of paper together with a wallpaper cover to make a notebook for questions, answers, prices, sketches, and so on, of information collected on the trip.

(e) Assessment/evaluation. Students will receive feedback on the accuracy of their estimates during Applemath Activities 9a and 9b.

Activity 4: During the Trip

Grouping:

Small groups, with an adult assigned to each one

Materials:

Notebooks, pencils, money to purchase apples

Procedures:

On the day of the trip, review rules and expectations. Assign an adult to stay with each small group to assist with its task. You may choose to use color-coded name tags for students and adults to help keep groups together. Review the objectives for the trip.

Explain to the adults who are helping the small groups that their role is to encourage the students to talk, to ask the questions they have prepared, and to record the information needed in later activities. Encourage all of the adults to incorporate language into the exploration of any unexpected discoveries at the market which might appeal to the children, such as home-baked or canned goods or live animals.

At the farmer's market, have students complete data collection forms; compute unit pricing on apple varieties in which they are interested; interview vendors; make notes on other products for sale; and purchase apples.

Use travel time on the bus to teach and review unit concepts and vocabulary. Teach the children to sing "Apple Blossom Time" or "Found an Apple" (a takeoff on "Found a Peanut"). Provide a card game, such as Rotten Apple (played like Old Maid with pairs of apple vocabulary cards and one rotten apple card). Talk about the trip en route, anticipating what students will see, and on the way home review what was seen.

Activity 5: After the Trip—Making Applesauce

Groupings:

Small groups of 4 to 8 students with an adult nearby
Small groups with a student leader

Materials:

Recipe on chart (rebus or written, depending on student level)
One apple for each student (Tart apples work best.)
¼ cup sugar for each 3 cups of cut-up apples
½ teaspoon cinnamon for each 3 cups of cut-up apples
½ cup water for each 3 cups of cut-up apples
Hot plate
Large pot
Large spoon
Knife and potato peeler for each student in small group (Students can bring these from home.)

Procedures:

(a) Applesauce activity. Help students "read" the rebus recipe. Discuss the meanings of terms for ingredients, utensils, and cooking procedures which might be new, for example, *peel, core, simmer.* Have one student follow the recipe through step 4 (see the rebus recipe, Figure A-6) as others watch and check to see that instructions are followed and that the student knows how to use utensils safely. If you are working with several small groups, ask one member from a previous group to be the leader of the current group, giving her or him a chance to apply the information learned. Then have each student follow instructions through step 4 independently, with supervision from you or the student leader, or both.

Figure A-6: Rebus Recipe for Applesauce

Have the students keep a record of the quantities of ingredients used and the quantity of applesauce produced for use in Applemath Activity 9b.

When all the apples have been prepared, guide the students through steps 5 through 8. As the apples simmer, discuss how heat changes liquids to gas and how sugar dissolves in the liquid and "disappears." Introduce the terms *solid, liquid, gas, suspension,* and *solution* orally and by writing them on the board. Discuss how solid apples are changed into liquid applesauce, and why a gas, water vapor, is produced in the process. Discuss how the sugar suspension or mixture is changed to a sugar solution. Use these terms to compare cooking applesauce with cooking other foods (such as cake, fudge, soup). If the students are ready for even more information, discuss how cell walls are broken down during cooking, and how this process changes flavor and texture.

As students observe the cooking process, help them describe the changes in the apples. Ask for suggestions for ways to describe what the texture is like when the apples are done ("mushy," "thick," "like oatmeal," etc.). Compare how full the pot was at the beginning of the cooking and how full it is at the end, and discuss reasons for the change, for instance, elimination of air space between apple pieces, evaporation of water.

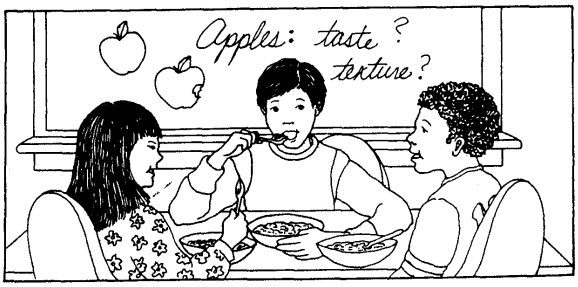
While the students eat the applesauce, discuss how apples are prepared and eaten in different students' homes. Use descriptive words for the taste and texture.

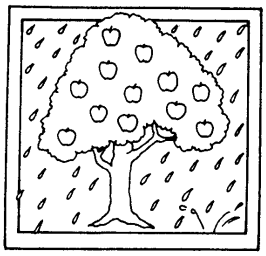
Review the cause-effect relationship between rain and applesauce, and elicit more silly talk which claims an impossible relationship.

(b) Assessment/evaluation. Ask each student to read the recipe independently.

Check selected students' comprehension by asking them to give instructions to other students.

Encourage students to discuss the success of the recipe or how it might be improved.





Part C: More Apples!

Activity 6: Plant Cycles

Groupings:

Large group with teacher
Small, independent groups

Materials:

Large mural paper
Construction paper in assorted colors
Paint, brushes, markers, pencils
Rain Makes Applesauce, by Julian Scheer and Milton Bileck
Opaque projector, slides and slide projector, or pictures from *Rain Makes Applesauce* showing the steps in the transformation from apple seed to applesauce
What's Inside of Plants, by Herbert S. Zim
Bits That Grow Big, by Irma E. Webber
Encyclopedias and other plant reference books
Films or filmstrips on the plant cycle
Language master and cards
Pictures of steps in plant cycle and labels (see Applelit Learning Center, Activity 11).

Procedures:

(a) Learning about cycles. Introduce the concept of cycle by drawing a bicycle on the board. Ask students to name other "cycles" and what they have in common (tricycle, unicycle, motorcycle—wheels that go around). Ask what a plant cycle might be. Talk about how plants grow in a cycle, like a wheel.

Draw a large circle on the board and review the pictures from *Rain Makes Applesauce.* Elicit the steps in the cycle from the children, and write them on the circle as they are suggested. Review the cycle and have students help to rearrange the order if necessary. Use simple line drawings so that children whose English vocabulary is limited can acquire the concept of the plant cycle. Your result should look something like this:

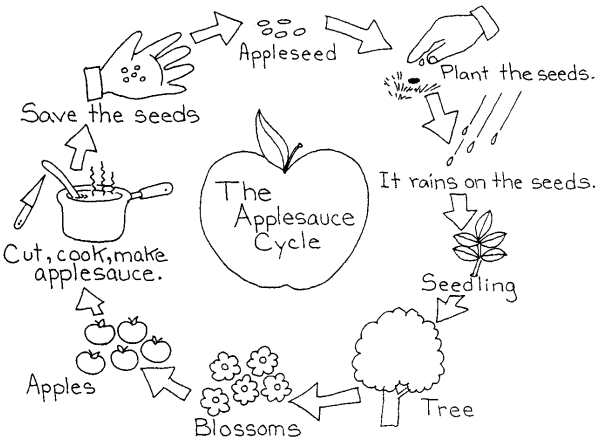


Figure A-7: The Applesauce Cycle

(b) Making cycle posters. Divide students into small groups and tell them that each group will choose a plant, learn about it, and make a plant cycle chart. In the library, help students use reference books to find and sketch the stages of growth of their chosen plants. Help them to make a small sketch of the mural, and then assign each student in the group one or more stages (e.g., for apples: seed, seedling, tree, blossoms, green fruit, ripe fruit, seed; for gill fungi [a group of mushrooms]: spores, mycelium, buttons, young plant, and mature plant). (*Note:* This would be an appropriate time for an art lesson on drawing plants and trees from nature.)

When the groups are ready to begin applying their individual drawings and cutouts to the mural paper, show them how to make a large circle using a pin, a pencil, and a string. Introduce or review the geometric terms *center, radius, diameter,* and *circumference* during this process.

Provide strips of lined paper and help the groups make labels for each stage. Then help them apply the labels to the murals. Refer the students to the dictionary and the plant books from the library to find the correct names and spelling for their labels. Display the finished murals in the classroom or hall. Have the groups hold a "mural tour" in which each group explains its mural to the class. Invite the principal or another VIP to the mural tour, to enhance the importance of the event for the students.

(c) Assessment/evaluation. Use the murals for diagnostic assessment of students' understanding of the plant cycle, writing skills, and manipulative skills.

Use Activity 11b of the learning center to assess students' understanding of the stages in the growth of the apple tree.

Use the language master to assess students' understanding of selected vocabulary from the unit. One set of cards could have words, another could have pictures. Students who are reading can test themselves to see how many of the words they can read correctly. Students who are working on oral vocabulary can test themselves to see if they can identify the pictures. The cards can also be used for independent study of vocabulary.

Activity 7: Johnny Appleseed

Groupings:

Large group, teacher-led

Small, independent groups

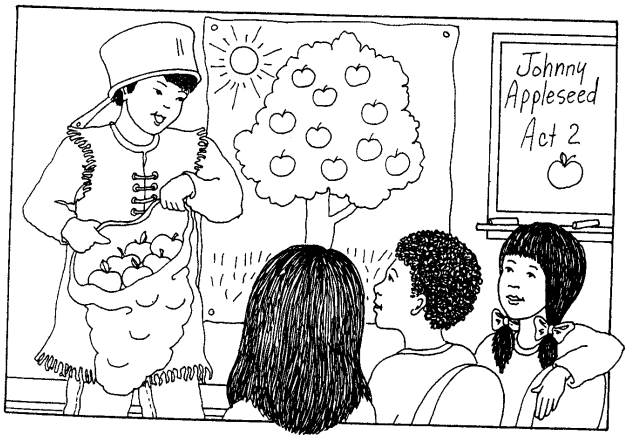
Materials:

Cooking pot with handle

Biographies, storybooks, encyclopedia articles about Johnny Appleseed (see references)

Sacks, pots, and other props brought from home by students

Procedures:



(a) Sharing the literature. Introduce the character Johnny Appleseed by placing a pot on your head. See if anyone knows who you might be playing. Tell the students that Johnny Appleseed was an American folk hero who planted apple trees all over the United States as it was being settled by families moving west. Discuss how stories of the lives of folk heroes are often part fact and part fiction. Ask students to listen to the story of Johnny Appleseed and decide what parts they think are probably facts and what parts are probably fiction.

Read from a book, tell from your own knowledge of the story, or show a film or filmstrip on the life of Johnny Appleseed (a.k.a. John Chapman). Have students retell parts of the story in their own words and discuss favorite events from his life. Talk about which events are true and which are not, and how one could know for sure. Talk about what character traits Johnny had that made everyone admire him.

(b) Acting out the story. Divide students into pairs or small groups and have each group select an incident from Johnny Appleseed's life to act out for the class. Examples might be Johnny's promise to a small child to plant apples; Johnny gathering seed from mash at a cider mill; Johnny's relationships with animals; Johnny's pet wolf; Granny's coat; healing the Indian; individuals who reported seeing Johnny after his death. (All these incidents are written about in Le Sueur's *Little Brother of the Wilderness: The Story of Johnny Appleseed.*)

Give students time both in and out of class to prepare the skits so that they can bring in simple props or costumes from home. While they are rehearsing, set expectations for the skit. It should be one to two minutes long. Lines may be improvised, read, or memorized. Groups may use pantomime with a narrator or dialogue. They may act out the parts themselves or use puppets. All students in the group must play an active, though not necessarily speaking, role.

Have students perform the skits before the class. Encourage students to give one another feedback on the skits, including both praise and suggestions for improvement or elaboration. Have the students revise and rehearse skits and then put on a second performance for another class.

(c) Assessment/evaluation. A picture assessment could be devised to determine whether students remember the events in Johnny Appleseed's life and the order in which they occurred. Select several pictures that depict events in the life of Johnny Appleseed and several that do not. Have students choose which pictures belong, and arrange them in the order in which they happened in Johnny's life.

A checklist of skills demonstrated in the performance could be devised for diagnostic purposes. Skills assessed could include willingness to get up before the group; participation of all group members; appropriate voice volume; expression; speech length and complexity; use of language conventions; and success of the skit in holding the attention of other class members.

Activity 8: HomeFUN—Apple Recipes

Grouping:

Large group, teacher-led
Children working with family members at home
Small, independent groups with teacher support

Materials:

Paper, pencils
Art supplies for illustrating and binding books

Procedures:

(a) Collecting recipes. Review the discussion of different ways of preparing apples and how apples are eaten in different individuals' homes. Review the recipe used to make applesauce. Explain to students that their homeFUN assignment is to make a rebus recipe for something that is made with apples in their homes.

Explain that parents may not actually measure all ingredients and that the students may have to watch the preparation of the dish in order to estimate the measurement of each item. Provide options for students who say that apples are never cooked in their homes (e.g., write another recipe or give instructions for how to eat a raw apple).

Elicit a list of food preparation and cooking equipment terms from the students (e.g., *peel, chop, core, simmer, boil, bake, knife, pot, strainer, peeler*), and duplicate the list or have students copy the words into their own notebooks or personal dictionaries for their use in making the recipe. Encourage them to choose a dish that is not too complicated. Encourage students to share ideas about the recipe they will write in order to assure a wide variety of dishes. Distribute printed recipe cards or provide a form for the recipe (see Figure A-8). Ask students to include some information about the country from which the recipe originated, such as location, climate, topography, natural resources, and important local foods.

Encourage students who are not ready to write recipes in English to bring in recipes in their native languages (preferably with pictures). These recipes can later be included in the cookbook in the native language, or you can find someone to translate them before inclusion.

Give the students and their families several days to a week to complete the assignments. This will take into account the busy schedules of working parents.

HomeFUN Apple Recipes

Name of Recipe _____

English Name _____

From the Kitchen of _____

Serves _____

Ingredients: _____

_____

_____

_____

_____

Procedures: _____

_____

_____

_____

_____

_____

Serving Suggestions: _____

_____

_____

_____

Figure A-8: HomeFUN Recipe Form

(b) Publishing an apple cookbook. HomeFUN assignments that are brought to class by students can be handled in a number of ways, depending on the amount of available time and the inclinations of both student and teacher. Here are three options:

1. **Publish "As Is."** Assign volunteer students to make a cover and table of contents, and bind and publish the recipes without revision or editing for the classroom or school library.
2. **Use the writing process.** Follow the steps in the writing process (see Chapter 6) to revise and publish the apple cookbook. Have the students give one another feedback on the recipes in small groups, on the basis of such criteria as completeness and understandability. Provide feedback to students in individual conferences. Have students revise and illustrate recipes, and then bind them into a cookbook, as in option 1.
3. **Use an adult volunteer.** After the revision process (see option 2), find a volunteer to type the recipes; have the students illustrate them; and duplicate the booklets for students to give as a special gift for Mother's Day or Father's Day, some other holiday, or just as a nice surprise.

Activity 9: Applemath

Groupings:

Large group, teacher-led
Small groups with and without teachers available
Independent, individual work

Materials:

Information collected during shopping and applesauce making
Paper and pencils
Blackboard and chalk, or chart paper and markers
Calculators

Procedures:

(a) Apple cost comparisons. Reproduce the field-trip chart that shows costs of different varieties and quantities of apples. Help students determine the steps involved in answering the following questions:

What was the price of each variety of apple per half peck, per peck, and per bushel?

What was the price per pound for each variety and quantity?

What variety was the cheapest?

Was the same variety cheapest in all quantities?

How much did the price per pound vary for each variety between buying a peck and buying a bushel?

Compare costs of several kinds of apples in several quantities.

Have individuals complete the necessary computations; enter them on the chart, and perform comparisons. Discuss the advantages and disadvantages of buying in quantity.

(b) Computing the unit price of homemade applesauce. As a large group activity, compute the price of applesauce. Determine and then collect the information needed (this collection is best done on the field trip and during the cooking activity).

Price of apples per pound (a)
Number of pounds used (x)
*Price of sugar per cup (s)
Number of cups used (y)
*Price of cinnamon per teaspoon (c)
Number of teaspoons used (z)
Number of quarts of applesauce made (q)

Explain the formula for computing the cost per quart.

Cost of one quart of applesauce = $(ax + sy + cz) \div q$

Review and practice the meanings of the units of measurement used: pound, cup, quart, teaspoon. Although all students may not completely understand the mathematical process for determining the formula, they can understand the general idea and perform individual computations, and they can develop vocabulary and concepts for measurement.

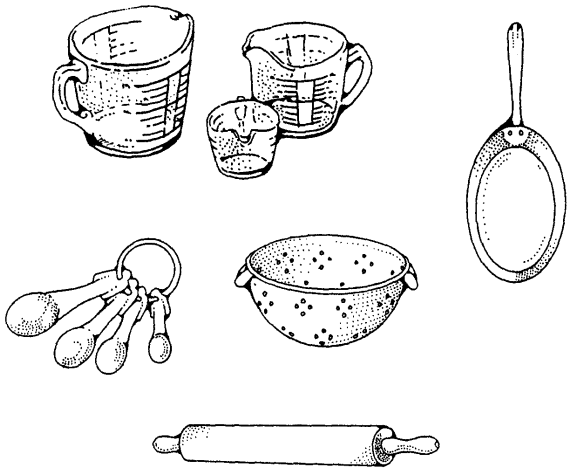
Have various students perform the calculations by hand and by calculator to check accuracy. Use the results of the computation to decide on the winner of the contest set up in Activity 3c, the Applesauce Estimation Contest. Discuss variables that might change the answer (quantity of applesauce made; variety of apples; change in price; amount of sugar needed depending on sweetness of apples; etc.). Compare the cost of homemade applesauce with the cost of applesauce at the grocery store. Questions for discussion might include "Is it economical to make one's own applesauce?" and "Are there other reasons besides economy to make homemade applesauce?"

*Use information on bag or container to estimate these.

(c) Cooking for one or a million. Select, with students, a favorite recipe from the class apple cookbook. Explain that recipes are often made for six or eight servings, whereas many times people either are cooking for fewer than six or are cooking for a crowd and need to find a way to adapt the recipe to their needs. Ask students how this might be done.

Write the ingredients and quantities of the chosen recipe on the board, along with the number that the recipe is expected to serve. Determine a formula for dividing the recipe in half and another formula for doubling the recipe. Assign pairs or small groups to perform computations for each ingredient. List the new quantities on the board.

After solving these problems as a class, ask each student to select a recipe and perform the computations individually. Provide a calculator for checking computations. (*Note:* This activity provides an excellent opportunity to introduce or review the process of changing fractions to decimals.)



(d) Assessment/evaluation. Have students check their own computations by using a calculator.

Request students to choose a recipe from home and either double quantities or divide them in half. Evaluate students' assignments for correct applications of the procedures used in class.

Assess understanding of measurement terms by having pictures of the various quantities on language master cards. Have pairs of students quiz one another on whether they can name the term for the pictured quantity.

Activity 10: Appletalk—Idioms and Figurative Language

Groupings:

Large group led by teacher

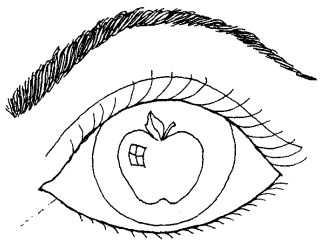
Individual, independent work with teacher support

Materials:

Chart paper, drawing paper, paint, markers, etc.

Procedures:

(a) Learning about idioms and figurative language. In preparation for this activity, ask students to listen for and bring in any idioms, metaphorical terms, or sayings using the word apple throughout the earlier activities in this unit. Make sure that the students know what idioms and metaphors are by providing some examples, such as "apple of my eye," Big Apple, Windy Apple, sour apple, apple cheeks, candy apple red, apple blossom time, "An apple a day keeps the doctor away," "An apple for the teacher." To increase the number of examples brought in, you may wish to include other fruits: "The car was a lemon," "You're a peach," "sour grapes."



As students bring in the terms or sayings, discuss their meanings and add them to a list on a wall chart. When quite a few have been collected, review their meanings and ask each student to use his or her imagination to illustrate one of the terms or phrases. Some may wish to illustrate a figurative meaning (e.g., a child with rosy cheeks for "apple cheeks"); a humorous literal illustration (e.g., a person with an apple in her eye for "apple of my eye"); or a combination of the two (e.g., a skyline of New York City inside a large apple for "Big Apple").

When the students have completed their illustrations, ask them to display their work individually in front of the class. Have the class guess which term or phrase the student has illustrated. Ask them to discuss whether the interpretation was figurative, literal, or a combination of the two. Make labels for the illustrations and display them.

(b) Assessment/evaluation. Cover the labels on the illustrations. Ask each student to name the phrase depicted and to tell whether the illustration is figurative, literal, or both.

Activity 11: Applelit Learning Center—Reading, Listening, Talking, and Writing about Apples

Groupings:

Individuals

Pairs for some activities

Small groups for many of the learning center activities, with or without the teacher

Materials:

We suggest some delightful and interesting literature around the theme of apples for inclusion in the Applelit learning center. This literature is listed in the reference section at the end of the unit. While you are looking for these books in your school or neighborhood library, you will probably find many others that are appropriate for your students. We suggest that you adapt the procedures suggested in this unit to the books that are available to you.

(a) The little red house.

Materials:

The riddle/poem "A Little Red House" can be found in the book *Yakima, Washington: An Apple Growing Community*

Tape recorder, cassette with story recorded on it

Apples

Knife

Procedures:

In an old folk tale a boy searches for the answer to a riddle:

A little red house
Just three inches wide
As round as can be
With a star inside.

The child goes from person to person repeating the riddle rhyme, but no one knows the answer. Finally, as the boy recites the rhyme to his grandmother, an apple falls out of a tree beside them. His grandmother cuts the apple in half crosswise and shows him the five-pointed-star pattern made by the arrangement of the seeds.

Activities based on this story can be offered on several levels:

1. *Independent reading.* Students who read English can read the story and then tell it to someone at home.
2. *Listening.* Students who do not yet read at the appropriate level can listen to the story on tape while looking at the illustrations. Then they can cut open an apple to see if there is a star. Finally, of course, they can eat the apple.
3. *Peer storytelling.* Older students can listen to the rhyme and learn it, then visit a younger class to tell the story of the riddle to a child or a small group. They can end the storytelling by cutting open an apple and sharing it with the younger children.

(c) Apples of love and discord.

Materials:

Book of Greek Myths (1962), by Ingri and Edgar Parin D'Aulaire

The Labors of Hercules (1965), by Paul Hollander

Cassette recorder and blank tape

Procedures:

The D'Aulaires' *Book of Greek Myths* includes two Greek myths about apples in the chapter entitled "The Apples of Love and the Apple of Discord." *The Labors of Hercules,* by Paul Hollander, describes Hercules' quest for golden apples and how he outsmarted Atlas to succeed. Depending on their reading skills, students could either read the myths for themselves or listen to them at the learning center.

After students have heard the stories, have them retell one of the stories into a tape recorder, then play the tape back to a small group. Outstanding tapes could be played for the whole class.

Have students discuss the apple stories in their small groups. Ask the students to explain how apples led to good things in one story and bad things in another. Ask them to tell one another any other stories they know about apples.

(d) Apple recipe cards.

Materials:

The students' own cookbook (see Activity 8b, Publishing a Cookbook)
Assorted illustrated cookbooks for adults and children
Apples: A Bushel of Fun, and Facts (1976), by Bernice Kohr (The last chapter includes a number of apple recipes for children to try.)
Recipe cards
Pens and pencils

Procedures:

Provide the students with several cookbooks as resources. Mark the pages with apple recipes that they might like. Encourage students to browse through the pictures and recipes and find one they'd like to try. Have them copy the recipe on a 3-by-5-inch card and take it home. Encourage students to bring in samples of dishes they've prepared and to report on the cooking.

(e) Apples: A wordless book

Materials:

Apples (1972), by Nonny Hogrogian
Cassette recorder and taped instructions

Procedures:

This activity is provided for beginning second language learners. Pair a beginning student with a verbal and compatible partner. Provide taped instructions for the partner to use in leading the lesson. On the tape, instruct the partner to have the beginning student tell the story of *Apples* while looking at the pictures. Tell the partner to ask questions and give encouragement, but *not* to tell the story. Explain that the job of the partner is to elicit the story from the beginning student. After the story has been told once, the students may reverse roles, with the beginning student asking the questions and the partner telling the story. On the tape, provide discussion questions for the pairs to use after the storytelling. Students should be instructed on the tape to listen to a question, then stop the tape and discuss the question, then turn on the tape for the next question. Questions might include the following: How did the stories you told differ from one another? What were the steps in the plant cycle in this story? How much time passed from the beginning to the end of the book? Was there anything impossible about the story the book told? Why was the book funny?

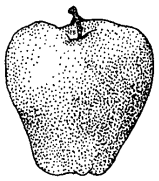
(f) Assessment/evaluation. For record keeping at the learning center, you may find a chart helpful. With the chart, you can assign centers to students according to their needs, assign partners that are appropriate, and monitor students' completion of the activities. We have included a sample chart in Figure A-9.

NAMES	ACTIVITIES A	B	C	D	E	Partner's Name	
Tomie							Assigned (date)
							Checked (date)
Charlotte							Assigned (date)
							Checked (date)
Maurice							Assigned (date)
							Checked (date)
Paulo							Assigned (date)
							Checked (date)
Crescent							Assigned (date)
							Checked (date)
Margaret							Assigned (date)
							Checked (date)
Anno							Assigned (date)
							Checked (date)

Figure A-9: Applelit Center Chart

REFERENCES

D'Aulaire, Ingri and Edgar Parin. 1962. *Book of Greek myths.* Garden City, NY: Doubleday & Company.
Educational Research Council of America. 1970. *Yakima, Washington: An apple growing community.* Boston: Allyn and Bacon.
Hogrogian, Nonny. 1972. *Apples.* New York: Macmillan.
Hollander, Paul. 1965. *The labors of Hercules.* New York: G. P. Putnam's Sons.
Kohr, Bernice. 1976. *Apples: A bushel of fun, and facts.* New York: Parents' Magazine Press.
Le Sueur, Meridel. 1947. *Little brother of the wilderness: The story of Johnny Appleseed.* New York: Alfred A. Knopf.
Scheer, Julian, and Bileck, Marvin. (1964). *Rain makes applesauce.* New York: Holiday.
Webber, Irma E. 1949. *Bits that grow big.* New York: William R. Scott.
Zim, Herbert S. 1952. *What's inside of plants.* New York: William Morrow & Co.



Unit B

Heroes and Superheroes: An Integrated Unit for Third through Sixth Grade Students

INTRODUCTION

The idea for "Heroes and Superheroes"* came directly from a group of middle elementary students who were bringing superhero figures to school and animatedly discussing superhero cartoon programs. Interest in superheroes seems to have some durability, as stories about remarkable humans and mythical figures have been told in just about every culture as far back as we have records of stories.

As the Heroes and Superheroes Unit Planning Web in Figure B-1 shows, student interest in contemporary superheroes is used as a jumping off place to study language through a variety of content areas. The famous television and comic book hero Spidey pays a visit to the class to set the unit into motion. Students learn about mythical superheroes from various cultures and compare them to contemporary superheroes. They review science concepts about simple machines, electricity, light, and magnetism by inventing superheroes whose powers are based on these concepts. They review their understanding of story structure while they create adventures for their original superhero characters.

In the second part of the unit, students turn their attention to real-life heroes.

* For purposes of clarity and simplicity, we use the terms *hero* and *superhero* to refer to both males and females throughout this unit.

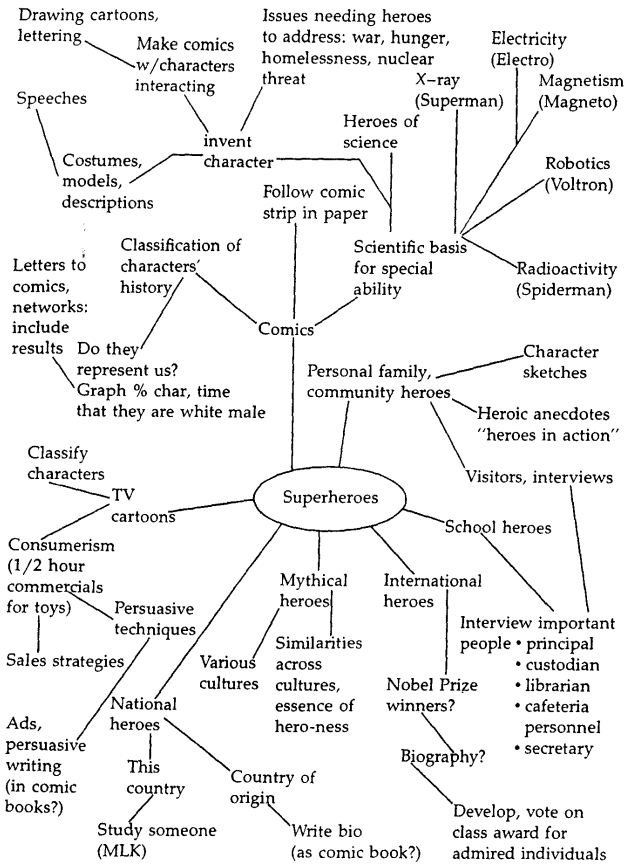


Figure B-1: Planning Web for Heroes and Superheroes

They learn about civil rights hero Martin Luther King, Jr., and then expand their study to other real-life heroes, including school and community heroes, whom they interview, and heroes from family stories. Students study speeches of famous heroes, then write and present speeches for their own superheroes.

A learning center where students practice and expand on concepts learned in the other unit activities plays an important role in the unit.

Objectives for the unit come from the *Basic Curriculum Content for Georgia's Public Schools* and cover a wide range of third- through sixth-grade objectives in many subject areas, addressing many aspects of language learning. These objectives for the unit are shown in Figure B-2.

The unit concludes with a Supercelebration, during which family, school, and community visitors are treated to the sights, sounds, and tastes of the products of students' labors.

Heroes and Superheroes: Outline of Unit Activities*

Introduction
Part A. Superheroes
Activities:
1. A Visit from Spidey
   a. Before the Visit
   b. During the Visit
   c. After the Visit
2. Legendary Superheroes
   a. Collecting Legends and Myths
   b. Assessment/Evaluation
   c. Extensions
3. Tallying Cartoon Heroes' Speech and Characteristics
   a. From Tally to Graph
   b. Assessment/Evaluation
   c. Extensions
4. Individual Superheroes and Group Adventures
   a. Developing Individual Superheroes
   b. Group Adventures
   c. Assessment/Evaluation
   d. Extensions

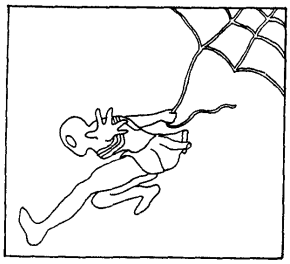
Part B. Heroes
Activities:
5. HomeFUN: Family/Community heroes
   a. Sunshine Outline
   b. Assessment/Evaluation
   c. Extensions
6. In-School Field Trips: School Heroes
   a. Before the Trip
   b. During the Trip
   c. After the trip
   d. Assessment/Evaluation
   e. Extensions
7. A Civil Rights Hero: Martin Luther King, Jr.
   a. A Real-Life hero
   b. Assessment/Evaluation
   c. Extensions
8. I Have a Dream: A Hero's Speech
   a. Listening to Speeches
   b. Writing and Delivering Speeches
   c. Assessment/Evaluation
   d. Extensions

9. HomeFUN: Heroes from Native Cultures
   a. Heroes from Home
   b. Assessment/Evaluation
   c. Extensions
10. Heroes and Superheroes Learning Center
   a. Where is Spidey? Communication Game
   b. Sequencing Heroic Adventures
   c. Listening to Speeches
   d. Interpreting Supergraphs
   e. Designing a Supervehicle

Part C. Supercelebration
Activities:
11. Refreshments: Hero Sandwiches, Superhero Cake
   a. Cooking Terms and Tools
   b. Assessment/Evaluation
   c. Extensions
12. Program: Speeches, Biographical Sketches, Comic Display
   a. Preparing to be Hosts/Hostesses
   b. Assessment/Evaluation
   c. Extensions

Suggested Resources for Heroes and Superheroes

UNIT ACTIVITIES



Part A: Superheroes

Activity 1: A Visit from Spidey

Groupings:
Small groups
Full group, teacher led
Materials:
Paper and writing materials
Chalk, blackboard, bulletin board
Spiderwoman (man) costume or mask (draw a red and blue spider face on an old sheet or pillowcase with magic markers)
Procedures:

(a) Before the visit. A week or two before the unit is to begin, start leaving hints around the classroom that Spidey is coming to visit. Leave spiderwebs on blackboard; tack a note saying "Spidey is coming" on the bulletin board, on the classroom door, in the restrooms; leave *Spiderman* comics around the room.

A day before the planned visit and unit introduction, ask students to make a list of questions they would like to ask Spiderman or Spiderwoman, should he or she decide to visit the classroom. Remind students that Spidey has no mouth, and thus can only nod or shake his/her head in response to questions: therefore, the questions should be answerable by yes or no. Encourage students to learn more about Spidey by reading the comics, and do so yourself. You may choose to read the comics aloud to the class.

Have students meet in small groups to brainstorm additional questions and write them down. Make sure that each student is armed with a question before Spidey's visit. Students might ask questions to find out how Spidey got web-spinning powers, why he/she is visiting the classroom, who Spidey's principal enemies are, what kinds of problems Spidey solves with his/her superpowers, why he/she wears that funny costume, and so on.

(b) During the visit. Ask a colleague do a little research on Spidey, then to don the costume and make a surprise visit to your class. Warn your confederate not to speak but just to nod or shake his/her head. Encourage students to ask all of the questions they have prepared and to record the information they obtain for later use.

(c) After the visit Talk about what students have learned. Write down what students say and have them help you group the information. Get students to define what a superhero really is—what characteristics a superhero has that no other persons or characters have. Make a list of characteristics that constitute a superhero profile, as in Figure B-2.

Superhero Profile Chart

Name	Superman
Alternate identity	Clark Kent
Costume	Red and blue with cape
Logo	Large yellow "S"
Superpower	Strength, X-ray vision, etc.
Source of power	From another planet
Goals	Help people in trouble
Enemies	Lex Luthor, etc.
Weakness	Kryptonite
Where born/originated	The Planet Krypton
Where based	Metropolis

Figure B-2: Characteristics of a Superhero

(d) Assessment/evaluation. Observe the quality of students' questions. Which students can ask questions that require yes or no answers? Which students are able to record the answers fully in English?

(e) Extensions. Encourage students to write in their journals about Spidey's visit.

If you are computer-inclined, help students keep track of the information you and the students collect about heroes and superheroes, then have students help you put a superhero data base on the computer as you do the unit activities. You can also keep information on a data base bulletin board and do manual searches for information. This bulletin board will come in handy as the unit progresses and can be used at the end for additional writing and game activities.

Use the game Twenty Questions to help students practice thinking up questions that require a yes or no answer. Students can choose a favorite comic book or real-life hero and the rest of the class can try to guess the hero's identity.

Activity 2: Legendary Superheroes

Groupings:
Full group, teacher-directed
Individuals working independently
Dyads

Materials:
Superhero profile chart
Literature about legendary superheroes, e.g., Greek and Roman myths, Asian, African, and South American myths, North American "tall tales." (Try to represent many cultures: see suggested references at the end of this unit and those cited in Chapter 7.)

Procedures:

(a) Collecting legends and myths. Visit the school and local public libraries to collect superhero myths from many cultures. Share these stories with the students by reading them aloud, by storytelling, by playing cassette tapes, or by showing films or video. Ask parents and students to bring/send in stories/myths about superheroes from their native cultures.

Make the stories available to students for sustained silent reading and for listening at the learning center. (If you like, have students vote on favorite stories they would like you to tape.)

Have pairs of students select a mythological hero, read or listen to stories about him/her, and then fill in the profile sheet with information about that hero.

Bring the students together to discuss these mythological superheroes and compare them to the contemporary superheroes of comic books and cartoons. Generate additional or alternative mythical hero characteristics to add to your original profile list.

Have the pairs meet to use information from the profile sheet and discussion in order to write a short narrative about their chosen mythological superhero.

Use the writing process (see Chapters 6 and 7) to edit and revise narratives, and bind them into a class book to be shared with parents and other classes. (For the book's title, you could use something like "Mythological Superheroes from Many Cultures.")

(b) Assessment/evaluation. Evaluate students' profiles and narratives to assess writing needs. Are students able to plan and write short, coherent, sequenced narratives with help? Without help? Observe discussions of pairs. Use "follow the phrase" (Ventriglia 1982) to extend language used by students.

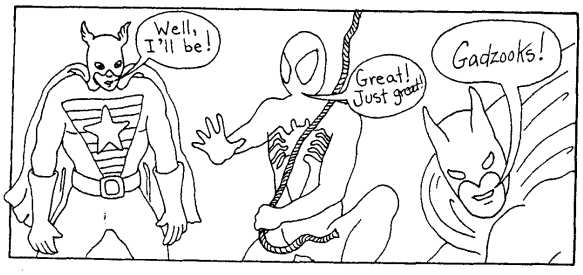
(c) Extensions. Repeat the same process, choosing comic book or cartoon superheroes, or permit students to select a mythological, comic book or cartoon superhero for developing the profile.

Discuss why we humans have always invented superheroes. Help students reflect on the human needs that are fulfilled by inventing myths and heroes.

If you are developing a database, explain that the computer understands only "yes" and "no" questions and numbers and that students will have to code the information so that the computer can understand. For example, the data entry for Superman might look like this:

Name:	Superman
ID:	001
Origin:	0 (not on earth)
Present location:	3 (North America)
Sex:	1 (male)
Age:	3 (20–30)
Race:	3 (Caucasian)

Activity 3: Tallying Cartoon Heroes' Speech and Characteristics



Groupings:

Full group, teacher-directed

Small groups

Materials:

Video cassette recorder

Videotape of segment (10 to 15 minutes, one story) of Saturday morning superhero cartoon (the school librarian or a student may volunteer to help you with this). The tape should be about 10 to 15 minutes long, of one story, with at least three or four characters and with some conflict and resolution.

Stopwatches or watches with second hands (Ask students to bring in or borrow from PE teacher.)

Writing materials

Almanac with current national population statistics

Graph paper

Procedures:

(a) From tally to graph. As you and students in the full group watch the tape the first time, list the superhero characters as they appear.

Have the students select a character to observe more closely as they watch the tape a second time. Assign a third of the students to keep track of the character's time on the screen, another third to keep track of how many times that character speaks, and the last third to record other information about the character: approximate age, race, gender, "good" or "bad" affiliation.

Record (have students write or dictate) and discuss findings. Compare conflicting evidence and develop ways for students to be more accurate.

Before watching the tape a third time, assign three students to observe each character, each taking one of the tasks from the second viewing of the tape.

Record the information obtained on a chart like that in Figure B-3.

	Time on screen	Times spoke	Gender	Age	Race	Good/bad
Character 1 Name:						
Character 2 Name:						
Character 3 Name:						
Character 4 Name:						

Figure B-3: Superhero Cartoon Graphs

Have students help you use the information on the chart to make graphs and compute answers to questions like the following:

How many times did women speak during the segment?

How many time did men speak?

What is the average age of the characters?

What percentage of the characters belong to each gender?

What percentage of the characters belong to each race?

What percentage of characters of each gender are "good?"

What percentage of characters of each race are "good?"

Using information you have recorded and graphed, compare percentages of persons of different races and genders in cartoons to those in the general population (using information from the almanac). Discuss implications of the answers.

(b) Assessment/evaluation. Observe students' use of various categories in the chart. Do the students classify correctly? Do they understand the terms? Observe students' knowledge of terms for numbers and mathematical operations, and use symbols to help them learn correspondences.

Ask each student to come up with a question that can be answered by the information on the chart. Evaluate students' questions and offer other students a chance to find the answers.

(c) Extensions. Assign students a homeFUN exercise in which they watch a particular TV cartoon and record information. Compile this new information to see if the results are the same as in the pilot study.

Have students, in pairs, make graphs that show the answers to the questions.

Students may wish to write to television stations or companies that produce comics or cartoons, telling them the results of their research.

Activity 4: Individual Superheroes and Group Adventures

Groupings:
- Full group, teacher-directed
- Individual, with teacher available
- Small groups, dyads

Materials:
- Superhero profile chart or transparency
- Blank superhero profile sheets
- Writing and drawing materials
- Science texts, science magazines, and illustrated science books for reference on scientific principles upon which to base superpowers

Procedures:

(a) Developing individual superheroes. In she full group, review categories of characteristics of superheroes, referring to a large superhero profile chart. Ask students for examples of each category. Discuss the science fiction aspects of contemporary superheroes. Many of the superpowers refer to actual scientific principles; for example, Spiderman—radioactivity; Superman—X-ray.

Brainstorm with the class, and list possible scientific connections between imaginary superheroes and their powers, for example:

Rocky	gravity
Flame Woman	fire
Geiger Girl	radioactivity
Laser Lad	lasers
Robert Robo	robotics

Ask each student to think up a personal imaginary superhero and to research the scientific basis of the hero's superpower. Ask each student to come up with a unique character. Give the students time to think, to browse through science materials, and to talk to friends and family members about the assignment.

When the students have completed the assignment, have them work in pairs, in turn presenting the character to the partner and giving feedback suggestitons for elaboration or improvement. Students can then revise their characters.

(b) Group adventures. Once characters have been revised, have groups of two or three pairs of students meet to plan an adventure for their characters to have together. Before the groups meet, go over the basic elements of a story (e.g., setting, characters, problem, complication, resolution) and basic comic-book techniques (narration, balloons for speech or thought, drawing simple stick figures). Have students draft and discuss a "story board" before writing the final version of their adventures.

Have students share adventures orally, and mount the strips on a "Superheroes Adventure" bulletin board.

(c) Assessment/evaluation. Plan an individual conference with each student to discuss the character that has been created. Provide students with encouragement and specific, constructive feedback.

(d) Extensions. You may choose to publish a classroom *Marvelous Universe* along with the comic adventures. Have each student contribute a one-page comic biography of a character to the book.

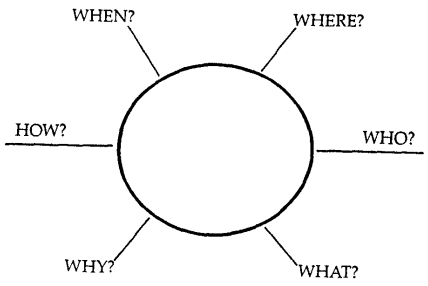
Part B: Heroes

Activity 5: HomeFUN—Family/Community Heroes

Groupings:
Student/older family member dyads
Materials:
Writing materials
Copy of newspaper or magazine record of "heroic" act by community member (e.g., "Scouts in Action" section in *Boys' Life)*
Sunshine outline chart
Individual, duplicated copies of the sunshine outline
Procedures:

(a) Sunshine outlines. Share stories of heroism from newspapers or magazines. Discuss what makes an act heroic (e.g., courage when facing personal danger, quick thinking, crucial special knowledge).

Have students ask family members to tell the story of a heroic act they experienced or heard about, either in this country or in their native country. Students may choose to write the story and read it to the class; to tape the story and play it to the class (and translate it if necessary and possible); or to present the story orally, using an outline. Show students how to use a "sunshine outline" for note taking to make sure they get all the essential information in their interviews of family members.



SUNSHINE OUTLINE

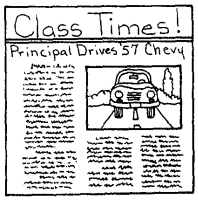
Figure B-4: Sunshine Outline

Have the students present the stories they have collected. Post a sunshine outline chart in the room. At the end of the presentation, ask participants to refer to the sunshine outline chart to note which questions the presenter has not yet answered. Then have participants ask these questions.

(b) Assessment/evaluation. Observe students' presentation. Look over the sunshine outlines to make sure that students understand the question words and that they have answered them appropriately. Observe the quality of questions that students ask one another during presentations.

(c) Extensions. Revise and compile heroic stories in a book. After students have all taken turns sharing the book with their families, donate the book to the school library for other students to read.

Activity 6: In-School Field Trips: School Heroes



Groupings:
Full group, teacher-led
Small groups
Small groups with school community "hero"
Materials:
Writing materials
Procedures:

(a) Before the trip. Discuss how our leaders and community helpers are in a sense heroes to us. Use the profile characteristics generated earlier to focus the discussion on characteristics of real-life heroes. Ask students to name persons that they think are the heroes of the school community (e.g., the principal, librarian, custodian, cafeteria worker, nurse, secretary, counselor, etc.).

Explain to the students that they are going to interview these school community heroes. With the students, develop a model list of questions they might ask. Explain that effective interviewers usually leave their "script" and ask unplanned questions to follow-up on interesting things the interviewees say.

Divide students into groups of about four. Have each group meet and come up with a list of questions to ask their interviewee. Make sure that each student has two or more questions to ask.

Have students role-play the parts of interviewer and interviewee until they are comfortable asking the questions. Again, explain that they will probably find themselves asking questions they had not thought of before the interview, and that this is desirable.

(b) During the trip. Have students take audiocassette recorders with them to tape the interviews. They may also take a camera to photograph the interviewee.

(c) After the trip. After the interviews, students may follow up in a number of ways, depending upon how much time is available and upon their language levels. They may transcribe the interview or parts of the interview and revise and publish them; summarize the information gained on a school heroes profile sheet; orally present a summary of the interview to the class; make a school heroes bulletin board in the hall with pictures of and stories about the persons interviewed; and write articles for the class newsletter or school newspaper telling about the school heroes.

(d) Assessment/evaluation. Ask students to write short summaries of the interview. Take dictation from students who are not yet ready to write. Keep these samples for comparison with writing done later in the year.

(e) Extensions. Make a "community heroes" bulletin board. Try to arrange phone or in-person interviews with community heroes—fire fighters, police officers, rescue workers. Collect stories that they tell of heroic acts performed by themselves or their colleagues.

Activity 7: A Civil Rights Hero—Martin Luther King, Jr.

Groupings:
- Full group, teacher-directed
- Small group discussions
- Superhero profile chart
- Individual, duplicated copies of superhero profile

Materials:
- Books, films, filmstrips, or videos on the life of Martin Luther King, Jr., e.g., *Boy King.*

Procedures:

(a) A Real-life hero. Ask the students if they have ever heard of Martin Luther King, Jr., and have them share what they know about him. Ask the students who are familiar with King if they think he is a real-life hero. Ask them to explain their answers.

Explain to the class that they are going to learn more about Dr. Martin Luther King, Jr. Referring to the superhero profile chart and other lists of heroic characteristics that you've compiled, ask students which characteristics a real-life hero would have. As they study about the life of Martin Luther King, Jr., they should note characteristics that fit on the chart.

Select one or more films, filmstrips, or videos about Martin Luther King, Jr., to share with the class.

The first time through, show the film with sound-narration. Ask the students to write down key words to remind them of events that occurred in King's life.

Discuss the key events depicted in the film. Ask students who have written down key words to stand at the front of the room with the words written in magic marker on cards so that all can see. Have the class tell the students standing at the front of the room how to rearrange themselves so that the events on the cards are in chronological order from left to right.

Show the film again, this time without sound. Have students hold up key words when the events occur to which the cards refer. Ask different student volunteers to narrate portions of the film.

After the film, divide the class into small groups and give each group a superhero profile chart. Ask the group to work together to fill in the relevant categories with information about Dr. King.

Bring the groups back together, and have students explain what groups have discussed in order to fill in the superhero profile chart on chart paper or overhead transparency. Discuss what characteristics about King make us consider him a hero, what his "superpowers" were (e.g., speaking and writing ability, charisma, commitment to his cause, courage).

Have students use information on the chart to dictate a narrative about King as you write it on chart paper or on the board.

(b) Assessment/evaluation. Listen to students' contributions to full and small group discussions. Note how well students remember facts about King's life, how well they express information that they know, and how well they put information into chronological order.

(c) Extensions. If someone in your community or class has worked in the civil rights area or has special knowledge of Dr. King, invite him or her to share this expertise with the class. (This could also be done for other real-life heroes from other countries.)

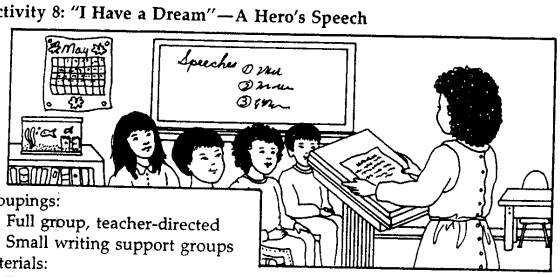
Have the students use the superhero profile as an outline for their own narratives about King. Have them generate time lines of major events in King's life.

Discuss other civil rights movements, e.g., Cesar Chavez and the farm workers' movement. Encourage students to read about these movements and to report to the class on their findings. Have students research and write about other real-life heroes whom they admire.

Display books on civil rights movements in the class library.

Assign each student one key word, and ask the student to expand the word into a paragraph about that event in Dr. King's life.

Activity 8: "I Have a Dream"—A Hero's Speech



Groupings:
Full group, teacher-directed
Small writing support groups
Materials:
Taped selections from several famous speeches, e.g., King's "I Have a Dream"; Patrick Henry's "Give Me Liberty or Give Me Death"; Abraham Lincoln's Gettysburg Address; John F. Kennedy's Inaugural Address; Winston Churchill's "We Will Never Surrender"
Audiotaping or videotaping equipment
Procedures:

(a) Listening to speeches. Introduce the activity by giving students short quotes from several famous speeches. Have the students try to identify the speaker and related events. Ask the students why they think these speeches were so memorable.

Discuss devices used by speechmakers, such as metaphor ("I have a dream"); dramatic, unusual phrasing ("Four score and seven years ago"; "We have nothing to fear but fear itself"); contrasts or opposites ("Give me liberty or give me death!"; "Ask not what your country can do for you; but ask what you can do for your country"); vocalizations and intonations; gestures; etc.

Explain that the speeches will be part of a learning center activity, and introduce the activity (see Activity 12).

(b) Writing and delivering speeches. Later on, after all of the students have completed the learning center activity, discuss with them things that they would like to make better in the world. Ask them to write a speech as if they were a hero who would solve that problem.

Have the students use the writing process and writing support groups to improve the speeches.

Have students rehearse the completed speeches. Videotape the rehearsals, and give students the opportunity to see themselves on tape. Help the students to observe specific things that they are doing right and specific ways in which they might improve aspects of their speaking.

(c) Assessment/evaluation. Watch the videotapes of the speeches to assess pronunciation problems and problems with expression, ease in public speaking, etc.

Ask the students to restate excerpts from the famous speeches in their own words in order to check comprehension.

(d) Extensions Have students go to the library to find other memorable speeches.

Encourage students to memorize a favorite part of a famous speech to recite to the class.

Activity 9: HomeFUN—Heroes from Native Cultures

Groupings:
Student and older family member dyads
Procedures:

(a) Heroes from Home With the students, revise the superheroes profile chart to make a hero profile chart.

Duplicate the revised chart, and send it home with students, requesting them to ask family members about a famous real-life hero from the family's or ancestors' country of origin.

Adjust explanations and expectations according to students' proficiency. Some may bring back the chart filled out in their native language; some may write only a few key words in English; others may write in complete English sentences.

Have students share what they have learned about the hero from their country of origin by telling the story, reading it, or directing several peers to act it out.

(b) Assessment/evaluation. Use a checklist of speaking skills to evaluate students' presentations. Include on the list common pronunciation errors for second language speakers such as sound substitutions, omissions of plurals, or incorrect verb agreement. Also include such speaking skills as pace, clarity, expressiveness, and use of gestures. Provide students with individual feedback, orally or in writing.

(c) Extensions. Encourage students who are interested in so doing to revise and publish their accounts of heroes from their native countries.

Activity 10: Heroes and Superheroes Learning Center

(a) Where is Spidey?—communication game.

Grouping:
Dyads
Materials:
Cardboard screen to block vision between two students facing one another
2 identical maps
5 pairs of identical cutout superhero figures
Procedures:
Two students sit facing one another with a cardboard screen blocking their view. Before each student is a map.

Student A places the figures at different locations on the map.

Student B must determine where the figures are located, and place his/her figures in the same places on his/her map. In order to do this, student B may ask only questions that can be answered by "yes" or "no" and cannot use the name of the superhero figure.

Students time how long it takes student B to place the figures correctly.

When student B thinks that all the figures are placed correctly, he/she asks student A to check them. If they are not all correct, a one-minute penalty is added to the time and the game continues until they are all correct. Students then switch roles and play again.

Student A checks student B's placement, thus giving feedback on the effectiveness of the questions. In order to let the teacher know that they have completed the activities, and to give some idea of how well they were communicating, students record their times on a chart at the learning center.

(b) Sequencing heroic adventures.

Grouping:
Individual
Materials:
Sets of pictures/written narratives showing sequences in myths, superheroes' adventures, real heroes' lives (all individuals that students have studied and discussed in class), varied to match different students' abilities, and ranked by number according to difficulty.
Procedures:
Individual students begin with the easiest set of pictures/narratives. They study the cards and place them in the correct order. They may consult reference books in the learning center and chart stories, time lines, and profiles around the classroom.

When the student thinks that the cards have been sequenced correctly, he/she turns the cards over to check. Cards are numbered on the back.

The student continues until the card sets become too difficult. Then the student records the scores on a checklist at the learning center.

(c) Listening to speeches.

Groupings:
Individuals or dyads
Materials:
Excerpts from famous speeches, in print and recorded, e.g.,
Lincoln's Gettysburg Address
Washington's Farewell
King's "I Have a Dream"
Kennedy's Inaugural Address
Patrick Henry's "Give Me Liberty"
Roosevelt's "We Have Nothing to Fear"
Churchill's "We Will Never Surrender"
Record player, cassette recorder, or VCR
Dictionaries, thesauruses, historical dictionaries (e.g., *American Heritage Dictionary, Oxford English Dictionary*), translation dictionaries from students' native languages
Index cards
Procedures:
Review skills needed for the activity: using the dictionary and thesaurus, defining figures of speech and speechmaking devices.

Rehearse the learning center procedures by choosing a selection and doing the exercises with the whole class.

Have students listen to tapes at the learning center over the course of the unit, changing the tapes when a given speech has been heard by everyone.

Have students select a favorite passage. They should then look up any unfamiliar words in the passage and write the word and a translation, an English definition, and their initials on an index card. The cards should be left in the learning center for future participants, who should select words that have not already been defined by a previous student.

Have students look for figures of speech in the selected passage. Are there examples of metaphor, simile, personification? Do the speakers use contrasts, dramatic phrasing, pauses, gestures (for speeches on video)?

Leave a checklist at the learning center for students to mark after they have completed activities.

The student continues until the card sets become too difficult. Then the student records the scores on a checklist at the learning center.

The teacher may check the cards at center to see the level of words students chose to learn, and use the word cards in future vocabulary activities and games.

(d) Interpreting supergraphs.

Groupings:

Groups of 2 or 3 students

Materials:

Graphs of information obtained in Activity 3 or similar graphs (see examples in Figure B-5)

Duplicated questions about graphs

Writing materials

Procedures:

Have groups work together to answer questions about graphs. When they have completed questions, they may check their answers on the answer sheet.

After students have answered questions and checked answers, they are to think of one new question that can be answered by the graphs to leave at the learning center for future groups. They may add the new answer to the answer sheet.

Students may return to the activity to answer questions that have been left by other students.

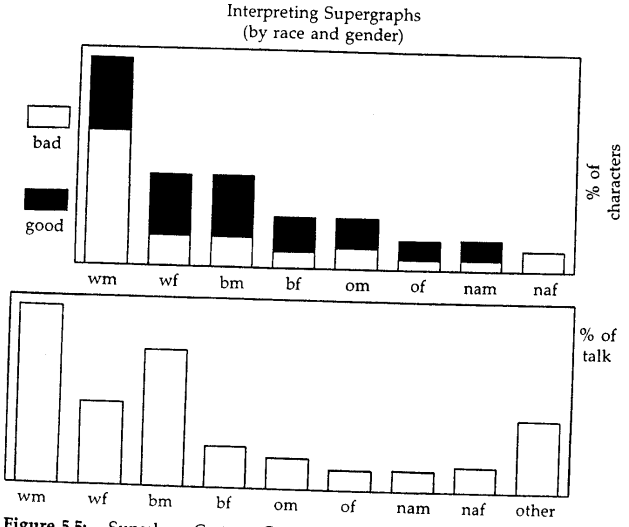


Figure 5.5: Superhero Cartoon Graphics

(e) Designing a supervehicle.

Groupings:

Groups of 2 to 4 students

Materials:

Pictures of simple machines in science texts, science magazines, and encyclopedias for reference

Junk! (foil, cardboard tubes and boxes, construction paper, tape, glue, jar lids for wheels, straws, dowels (Ask students to bring these supplies from home.)

Procedures:

Review study of simple machines.

Ask small groups to design and create a supervehicle for the superheroes they created in Activity 4.

Students are to incorporate at least three simple machines into the creation and must write a brief description of how these machines operate.

After all vehicles are complete, groups may present their vehicles and descriptions to the class.

Part C: Supercelebration

Activity 11: Refreshments: Hero Sandwiches, Superhero Cake

Groupings:
Small groups with parent volunteer assistants
Materials:
Cake and frosting ingredients (mix, eggs, oil, powdered sugar, butter, milk, food coloring) and utensils (bowl, mixer, scraper, cake pans, cake plate)
Hero sandwich ingredients (unsliced loaf of bread, sliced sandwich meats, sliced cheeses, tomato, lettuce, dressing) and utensils (knives, serving platter)
Procedures:

(a) Cooking terms and tools. Explain to students that they are going to help make refreshments for their supercelebration, to which they are inviting family and school friends. At the celebration, they will share what they've learned and done during the unit.

Divide the class into small groups of bakers, frosters, and sandwich makers. Groups may work with parent volunters at different times during the day, or, if you have enough volunteers, all at the same time.

Orient your volunteers to the language potential of the cooking activities. Ask them to help the students learn measurement terms and terms for cooking procedures, ingredients, and utensils. Make sure the volunteers understand that the *students* are to perform the preparations and actions and to talk about them as they do so.

(b) Assessment/evaluation. Listen to the students as they prepare the food, and take advantage of spontaneous language learning opportunities that arise.

How did the food taste? Did the students have fun cooking? Good things to eat and good fun are important objectives of this activity.

(c) Extension. Students may enjoy collecting recipes for dishes they have prepared at class and at home. Have them each contribute a recipe to a *Kid's Cookbook.*

Activity 12: Program—Speeches, Biographical Sketches, Comic Display

Groupings:
Full group, the class plus visitors
Dyads—a student guide and a visitor
Materials:
All of the products of the "Heroes and Superheroes" unit: superhero profiles, hero profiles, *Marvelous Universe,* cartoon superhero tallies, charts, and graphs, superhero adventures, supervehicles, stories about superheroes from students' native cultures, school community heroes bulletin board
Procedures:

(a) Preparing to be hosts/hostesses. Two weeks before the celebration, review friendly letter format and have students each write two invitations, one to the student's family and one to a special guest from the school or community (include the persons students have interviewed). Revise and send the invitations.

Have students help you attractively display books, profiles, graphs, adventures, vehicles, etc.,

Before the celebration, rehearse host/hostess roles. Have students practice giving one another tours of the classroom, showing the accomplishments of the unit, and offering one another refreshments.

With the students, plan and rehearse a formal program in which each student has a role. Students may tell about the unit activities, read a story about a mythological hero, read aloud a comic adventure with illustrations on overhead or opaque projector, recite a memorized part of a famous speech, or recite an original speech.

(b) Assessment/evaluation. Watch how students perform in this new situation. How does their language use change when they are in front of the public? How well do students manage the social aspects of the situation?

(c) Extensions. If you have developed a superheroes database, have students demonstrate its operation for the visitors.

SUGGESTED RESOURCES FOR HEROES AND SUPERHEROES

The American Spirit: 1776–1976 (Record). 1975. New York: London Records.
Bahree, P. 1983. *The Hindu world.* Morristown, NJ: Silver Burdett Company.
Barlow, G. 1966. *Latin American tales: From the Pampas to the pyramids of Mexico.* Chicago: Rand McNally & Company.
Benjamin, C. L. 1982. *Cartooning for kids.* New York: Thomas Y. Crowell.
Caplan, R. (Producer). 1974. *Legacy of a dream* (Film). Atlanta, GA: Martin Luther King Foundation.
Cummings, R. M. 1986. *Make your own comics for fun and profit.* New York: Walch.
d'Aulaire, I., & d'Aulaire, E. P. 1957. *Abraham Lincoln.* Garden City, NY: Doubleday & Company.
———. 1967. *Norse gods and giants.* Garden City, NY: Doubleday & Company.
Dawood, N. J. 1978. *Tales from the Arabian nights.* Garden City, NY: Doubleday & Company, Inc.
deKay, J. T. 1969. *Meet Martin Luther King, Jr.* New York: Random House.
Field, E. 1973. *Eskimo songs and stories.* Cambridge, MA: Dell Publishing Company.
Finlayson, I. 1980. *Winston Churchill.* London: Hamish Hamilton.
Floethe, L. L. 1967. *A thousand and one buddhas.* New York: Farrar, Straus & Giroux.
Franchere, R. 1970. *Cesar Chavez.* New York: Thomas Y. Crowell Company.
Fritz, J. 1975. *Where was Patrick Henry on the 29th of May?* New York: Coward, McCann & Geoghegan.
Gibson, M. (no date). *Gods, men & monsters from the Greek myths.* Great Britain: World Mythologies Series.
Great American: Martin Luther King, Jr. (Video). 1982. EBE.
Great American speeches, Volumes 1–4 (Record). 1969. New York: Caedmon Records.
Great British speeches, Vols. 1. 2. 3. and 4 (Record). 1975. New York: London Records.
Hoff, S. 1983. *The young cartoonist: The ABC's of cartooning.* New York: Stravon Educational Press.
John Fitzgerald Kennedy: A memorial album. (Record). 1963. New York: Premier Albums.
Junaluska, A. (Editor). *Great American Indian speeches,* Volumes 1 and 2 (Record). New York: Caedmon Records.
King, M. L. (Speaker). 1986. *Martin Luther King: I have a dream.* (Video). MPI Video.
McKissack, P. 1984. *Martin Luther King, Jr.: A man to remember.* Chicago: Children's Press.
Patterson, L. 1969. *Martin Luther King, Jr.: Man of peace.* Champaign, IL: Garrard Publishing Company.
Riordan, J. 1985. *Tales from the Arabian nights.* Chicago: Rand McNally & Company.
Shapiro, I. 1967. *Heroes in American folklore.* New York: Julian Messner.
Shapp, M., and Shapp, C. 1965. *Let's find out about John Fitzgerald Kennedy.* New York: Franklin Watts.
Smith, C. E. 1965. *The patriot plan* (Record). New York: Folkways.
Snyder, G. S. 1980. *Human rights.* New York: Franklin Watts.

Bibliography

Aaronson, E. 1978. *The jigsaw classroom* Beverly Hills, CA: Sage Publications.
Allen, V. L. (ed.). 1976. *Children as teachers: Theory and research on tutoring.* New York: Academic Press.
Allen, J. B. 1985. A three-level curriculum model for second-language education. *The Canadian Modern Language Review,* 40(1):23–43.
Applebee, A. N. 1978. *The child's concept of story.* Chicago, IL: University of Chicago Press.
Applebee, A. 1984. *Contexts for learning to write: Studies of secondary school instruction.* Norwood, NJ: Ablex Publishing Corporation.
Applebee, A. N., and Langer, J. A. (1983). Instructional scaffolding: Reading and writing as natural language activities. *Language Arts,* 60(2):168–75.
Appleton, N. 1983. *Cultural pluralism in education: Theoretical foundations.* New York: Longman.
Armbruster, B. B.; Osburn, J. H.; and Davison, A. L. 1985. Readability formulas may be dangerous to your textbooks. *Educational Leadership,* 42(7):18–20.
Arnow, B., and Byrd, P. 1986. Writing to policy/decision makers. *TESOL in Action,* 1(1):1–7.
Ashworth, M. 1985. *Beyond methodology: Second language teaching and the community.* New York: Cambridge University Press.
Ashton-Warner, S. 1963. *Teacher.* New York: Bantam Books.
Au, K. H. 1979. Using the experience-text-relationship method with minority children. *The Reading Teacher,* 32(6):677–79.
Au, K. H., and Jordan, C. 1981. Teaching reading to Hawaiian children: Finding a culturally appropriate solution. In H. Trueba, G. P. Guthrie, and K. H-P. Au (eds.), *Culture and the bilingual classroom; Studies in classroom and ethnography* (pp. 139–52). Rowley, MA: Newbury House Publishers.
Ausubel, D.P. 1963. *The psychology of meaningful verbal learning.* New York: Grune and Stratton, Inc.
Baker, G. C. 1983. *Planning and organizing for multicultural instruction.* Reading, MA: Addison-Wesley Publishing Company.
Barnes, D. 1976. *From communication to curriculum.* Hammondsworth, Middlesex, England: Penguin Books.