

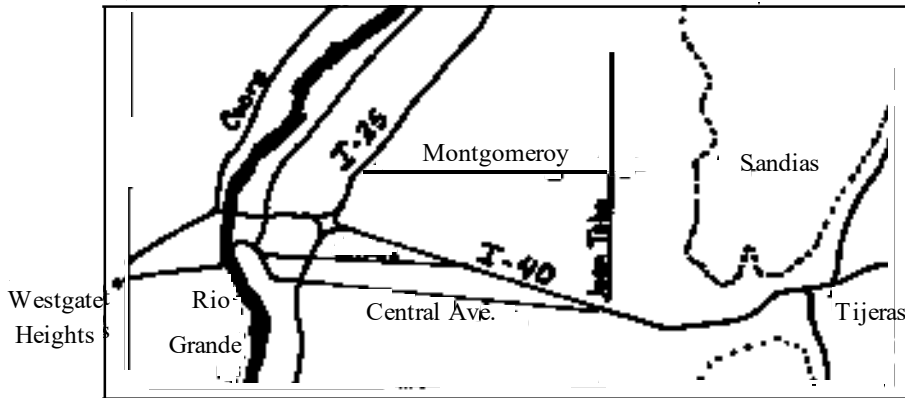


Eye Opener Worksheet 5

Your Neighborhood As A Little Environment

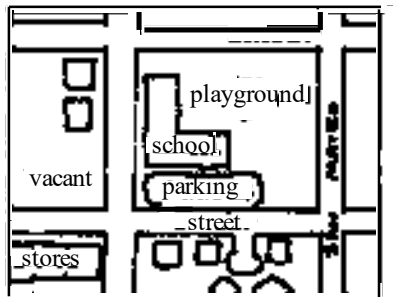
In what part of the city is your home located?

_____ Southwest _____ Southeast _____ Northwest _____ Northeast _____ Outside the city
Locate your home by placing an X on the map below.



In the box below, draw a map showing your street, the streets closest to it, and the kinds of buildings nearby. On the back of recycled paper, draw this map to scale.

Sample



Your Street:

What is the area in which you live usually called?

_____ Downtown _____ Old Town _____ North Valley _____ South Valley _____ Northeast Heights
_____ Southeast Heights _____ Four Hills _____ Westgate _____ Tijeras _____ Taylor Ranch
_____ Rio Rancho _____ Other

In what natural region is your home located?

_____ West Valley Side _____ Mountain Uplands _____ Floodplain
_____ Mountain Lowlands _____ Alluvial Fans

What is the altitude where you live?

Do you live on flat land? On a slope?

Check any of the places listed below which are near your home.

_____ Rio Grande _____ Sandia Mountains _____ Foothills _____ Roosevelt Park _____ Zoo
_____ Fairgrounds _____ Winrock or Coronado _____ Volcanoes

Which of Albuquerque's natural features can you see from your house? Sandia Mountains, Volcanoes, Rio Grande, Bosque, Manzano Mountains

Check any of the following places which are in your neighborhood.

_____ stores _____ library _____ fire station _____ post office _____ hospital _____ church
or synagogue _____ movie theater, _____ community center _____ restaurant

Which of them do you frequent?

What kind of house do you live in? _____ High rise apartment _____ garden apartment _____
town house _____ private house _____ other

Draw a picture of your house on a recycled piece of paper.

Does your house look like most of the other houses in the neighborhood?

When was your house built? When were most of the other houses in your neighborhood built?

If you live in a private house, how large is your lot?

_____ feet by feet: _____ meters by meters
_____ acres _____ hectares

How large are most of the other lots around your house? _____

Check all the things below that you have on the land around your house.

_____ fishpool _____ chicken coop _____ swing set _____ vegetable garden _____ flowers _____ tennis
court _____ workshed _____ Southwestern garden _____ picnic table _____ patio _____ sand box _____
bird bath _____ barbecue _____ lawn basketball hoop _____ horses _____ garage _____ swimming
pool

In which direction(s) do most of the windows of your house face? _____ north _____ south _____
northeast _____ southeast _____ east _____ west _____ northwest _____ southwest

If your lot is separated from your neighbors and the street by a barrier, what kind? _____ drainage ditch
_____ adobe wall _____ wooden fence _____ cyclone fence _____ natural barrier _____ brick wall
_____ landscaping _____ other (what kind?)

What are the city zoning regulations about walls or fences in your neighborhood? _____

Describe the streets in your neighborhood. Are they paved? Do they have sidewalks? _____

What kind of soil do you have? Check all that apply. _____ poorly drained _____ well drained
 _____ stony _____ sandy _____ clayey _____ fertile

How much rain do you get? Keep a record on a chart like the one below. Use a rain gauge to measure the rainfall. How does the amount of rain at your house compare with other parts of the city? Keep a record of the Weather Bureau report.

Date	Amount of Rain	Date	Amount of Rain

How does the temperature outside your house compare with Weather Bureau reports? Keep a record for two weeks on a chart like the one below. If your temperatures are different, how do you explain that?

Date	Time	Temperature Outside House	Weather Bureau Reading

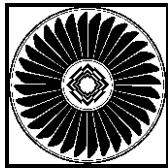
What kinds of birds do you see around your house? _____
 What other kinds of animals do you see around your house? _____

Use the World Wide Web or perhaps a CDROM about animals to do some of your research .

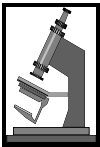
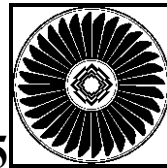
Write an ad for your neighborhood.



- Are there bike paths?
- Are there any places near your house where you and your friends can play ball?
- What do you do for fun in your neighborhood?
- Do the people on your block ever have parties together?
- What do you like or dislike about your neighborhood?



Eye Opener Activities 5



After Rain Observation

After a heavy rain, walk outside your school or home and observe what happened.
 Were there flash floods? Are there gullies? Puddles? What happened to the water on the pavement? On the grass? On bare soil? Is there runoff to the street? Where does that water go? How does this relate to the water cycle and to the natural environment of the part of the city in which you live? Is there any relationship to the way people have used the environment?

Conduct a survey of your yard or the school grounds for standing water. Determine the area covered and the average depth. How long does it take the water to drain and conditions to return to normal?

Did the rainstorm create an erosion pattern on the soil, or change an existing one? If so, describe.

How did the amount of water that fell in your part of the city compare with the amount received in other parts? Explain.

How would a 10 inch (25 cm.) change in annual rainfall affect your area?



Write an illustrated story pretending that you are a drop of rain water. What choices would you have when you fell to earth?

Natural Environment Change

Make a list of ways the natural environment of your home and immediate neighborhood may have been changed when the houses were built.

How do you think this land looked before construction began? 100 years ago? 500 years ago?

If you think the land changed between 100 years ago and 500 years ago, what might have caused the differences?

What changes might be taking place in the physical environment now? What is causing these changes?

Plant & Water Inventory

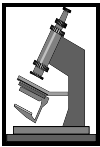
Inventory the plants in your garden to see how many of them are Southwestern and how many others require large amounts of water. Make a chart like the one below to record your findings. Use the list of Native and Drought Resistant Plants in this Chapter.

Plants in Your Garden		
	Need Little Water	Need Much Water
Trees		
Shrubs		
Ground Cover		
Herbaceous		

How often do you have to water the Southwestern plants in your garden? The other plants?

Do you use a sprinkler system? How much water do you use during the growing season? How much water is this per square foot (square meter) of your garden? How do summer water bills compare with winter bills? How efficient is the sprinkler system? Is there much *fugitive* water, water that gets away from the planted area?

How is the garden fertilized? Are pesticides used? If so, what kinds? What are the pros and cons of pesticides? If you have a vegetable garden, is it successful? Why?



Landscape Observations

Take a walk around the neighborhood and note the landscaped areas.

How many houses have Southwestern type gardens? How many have a mixture of native and non native plants?

Interview some homeowners who have distinctive gardens. Why did they select that particular landscaping?

Walk to a vacant lot or an unlandscaped area on the school grounds.

How does this area compare with the landscaped area around the school?

How do human trample patterns affect your school environment?

What examples of plant succession can be seen?

If this area is on the school grounds, would it be suitable for a native plant garden? For a wildflower garden? Why? How might one be started?



School Grounds Panel Discussion

Set up a panel discussion on the subject of How Can the School Building and Grounds Better Serve the Public? Invite representatives of the neighborhood association, the Park Department, APS, and other community groups to participate on the panel. Have different students serve as moderator, recorder, and timekeeper.

Are there plans to use the playground as a JOP (Jointly Operated Playground)?

Do any community groups, such as Boy Scouts, Girl Scouts, etc., use the school building at present?

Can the school be used for adult education courses? Is it being used that way at present?

Is it better from the point of view of economy and use of energy resources to keep the building open for purposes other than children's education?

Could the school grounds be used for community gardens?

Does the neighborhood have adequate facilities for senior citizen recreation? If not, could the school building or grounds be used?

What other community uses could the school and its grounds be put to?

How can community groups express their opinions about how the school grounds, the playgrounds and the school building be used?



3 D Neighborhood Map

Make a 3-D map of your neighborhood, showing hills and flat areas, arroyos, diversion channels, drainage and irrigation ditches, and other natural and manmade features.

What is the geological explanation of hills in your neighborhood?

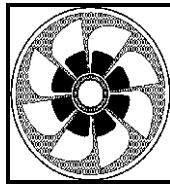
If there are irrigation ditches in your neighborhood, who maintains them? How?

When was the last flood in your neighborhood? How severe was it?

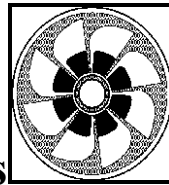
What, if any, major changes took place in the topography of your neighborhood during the past thousand years?

Mixed Up Map

Can you put this map of community planning areas together? Cut out the pieces and paste on another paper.



Additional Activities



School Litter Map

Map your school grounds to show where litter is found. Use different symbols for each type of litter.
What kinds of litter predominate? Where is most of the litter found?

Where are the litter receptacles? How often are they emptied?

Is most of the littering done by students, by other people who use the school grounds, or by the wind?

What attempts have been made to conduct an anti litter campaign? Could your class start such a movement? Does your school participate in Albuquerque's citywide cleanup efforts?

What forms of positive and/or negative reinforcement can your class suggest to help schoolmates change their littering habits?



School Site Research

Conduct research to find out why the school was located on its site.

Was the site selected because it was readily available? Because it was considered suitable? What makes a site suitable for a school? Was there a heavy population concentration in the area when the site was selected? Was a heavy population concentration projected?

Write a brief paper on how your school has affected the natural environment, and how it still does.

High School Student Transportation

Discuss the problem of transportation for high school students.

How many students drive to school? Why do they drive? Do they carpool?

Should the age for getting a driver's license be raised? Why or why not?

How much space around the school is utilized as parking lots? What is the monetary value of this land? Is there any other purpose this land could be used for by the school community?

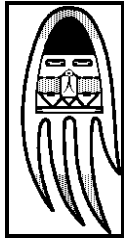
What alternative methods of transportation do the students have?

Student Transportation Graph

Construct a pie graph to show what percentage of students use each method of transportation. Include: school bus, public bus, carpool, self-driven auto, parent driven auto, bicycle, and walking. Use a computer spreadsheet to help you.

Does the percentage distribution of modes of transportation used vary much by senior high school grade level? How much? Why?

What effects does extensive use of the automobile have on Albuquerque's environment?



Activities for the Senses and Sensibilities



Favorite Part of Town

Think about various and widely differing sections of the city (the rural South Valley, urban Downtown, the green Tijeras Canyon, desert-like bluff of the West Mesa, the semi rural North Valley, or the rugged Foothills of the Northeast Heights). In which of these places would you most like to live? Write a story telling why you like the place you selected, and how it makes you feel to be in that kind of setting.

Fences

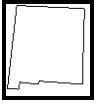
Read Robert Frost's poem, "Fences." Discuss with classmates. Why do people build fences? How do you feel about it?

Photographic Exhibit

Set up a photographic exhibit of pictures on the subject, What I Like and Dislike about My Neighborhood.

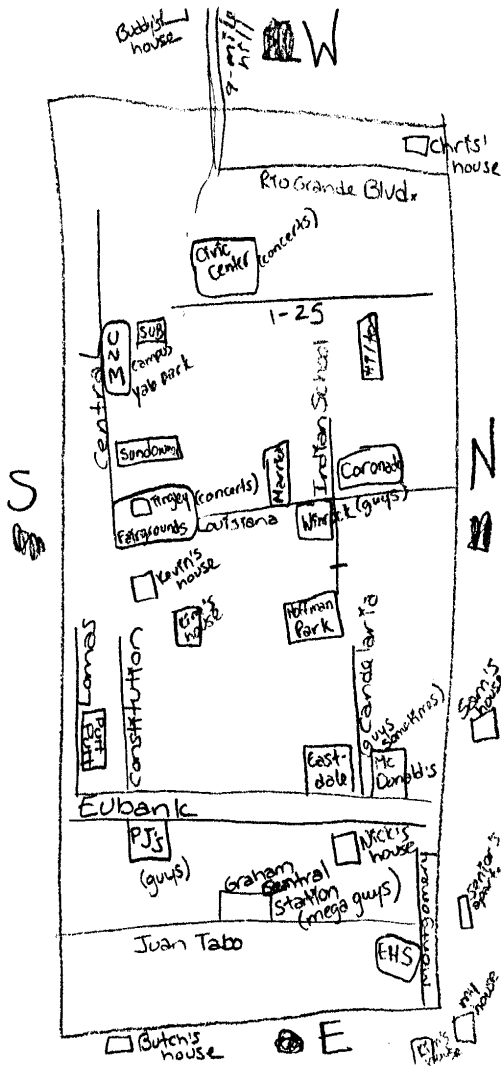
Buddy Class

Arrange a buddy class from a different school in a different part of Albuquerque. Students can meet each other on jointly arranged trips, converse through email, visit each other's schools for special events, correspond, exchange photographs, have athletic events together, and set up discussion forums or seminars. Try to select a school in parts of the city students never, or seldom, visit. At the end of the year, discuss how this experience may have led to a better understanding of other places and people in Albuquerque.

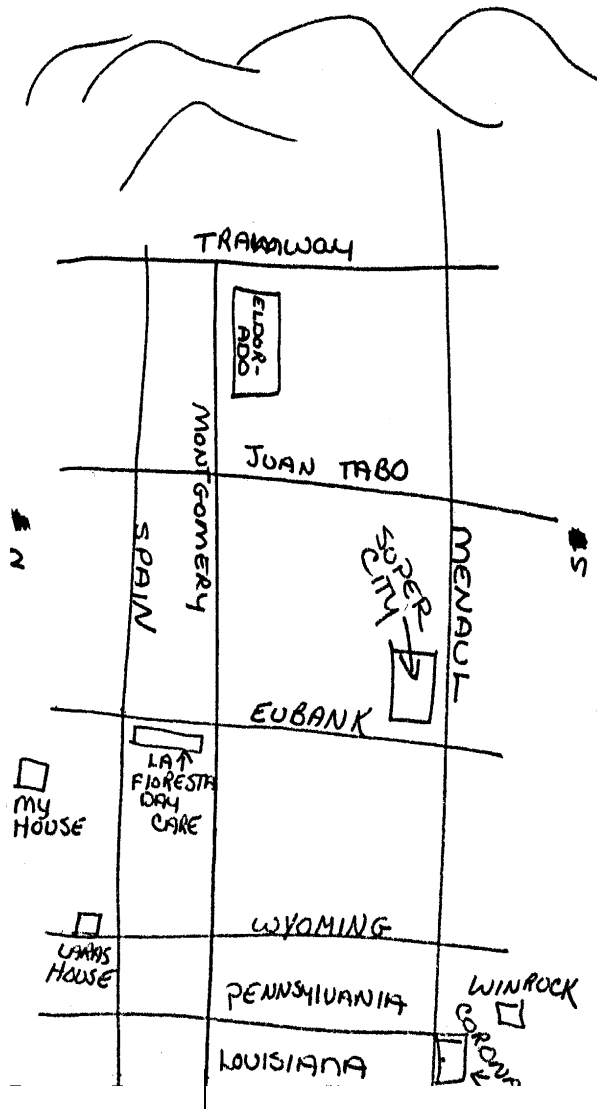


Cognitive Map

Make a pictorial cognitive map of the parts of Albuquerque you know. Compare with other students in the class, and discuss the similarities and differences.



Leigh Ann Hatten, Eldorado High School



Jenni Richards, Eldorado High School

Recommended Native Or Drought Resistant Plants

Grasses

Blue Grama	Buffalograss	Indian Rice Grass
Saltgrass	Sand Dropseed	Side-Oats Grama
Six Weeks Grama	Western Wheatgrass	

Shrubs

Apache Plume (<i>Fallugia paradoxa</i>)	Beargrass ((<i>Nolina</i>))
Big Leaf Sage (<i>Artemisia tridentata</i>)	Bird of Paradise ((<i>Caesalipinia gilliesii</i>))
Broom Dahlea (<i>Dalea</i>)	Bush Honeysuckle (<i>Lonicera tatarica</i>) - Not very drought tolerant
Cactus (Cactus) - many varieties	Cliffrose (<i>Cowania mexicana</i>)
Chamisa (<i>Chrysothamnus nauseosus</i>)	Creosotebush (<i>Larreu tridentata</i>)
Common Juniper (<i>Juniperus communis</i>) - female only	Fourwing Saltbush (<i>Atriplex canescens</i>)
Mondell Pine (<i>Pinus elderna</i>)	Mountain Mahogany (<i>Cercocarpus montanus</i>) - needs water in winter
Mariola (<i>Parthenium incanum</i>)	Pampas Grass (<i>Cortaderia</i>)
Mormon Tea (<i>Ephedra</i>)	New Mexico Locust (<i>Robinia neo-mexicana</i>)
Red Cedar (<i>Juniperus</i>) - female only	Silktassel Tree (<i>Garrya fremonti</i>) -
Snakeweed (<i>Gutierrizia</i>)	Siberian Caragana (<i>Caragnea</i>)
Skunkbush (<i>Rhus trilubata</i>)	Silverberry (<i>Elaeagnus pungens</i>)
Sotol (<i>Dasyilirion wheeleri</i>) - not in severe winter	Silverking Artemisia (<i>Artemisia - eudoviciana</i>)
Spanish Broom (<i>Genista hispanica</i>) - low water	Threeleaf Sumac (<i>Rhus trilobata</i>)
Soapberry (<i>Sapindus suponaria</i>)	Wolfberry (<i>Lycium pallidum</i>)
Winterfat (<i>Ceratoides lanata</i>)	
Yucca (<i>Yucca</i>)	

Trees

Alligator Juniper (<i>Juniperis deppeana</i>) - female only	Piñon Pine (<i>Pinus edulis</i>) - needs winter water
Desert Willow (<i>Chilopsis linearis</i>)	One-Seed Juniper (<i>Juniperus monosperma</i>) - female
Rocky Mountain Juniper (<i>Juniperis scopulorum</i>) -female only	Rio Grande Cottonwood (<i>Populus</i>) - needs ground water
Salt Cedar (<i>Tamarix pentandra</i>)	Russian Olive (<i>Elaeagnus angustifolia</i>) - needs ground water
Mcsquite (<i>Prosopis</i>) -some not hardy this far north	

Information taken from *Southwest Landscaping with Native Plants*, Judith Phillips, Museum of New Mexico, 1987 and NMSU Cooperative Extension Service, *Native Shrubs in Southwest Landscapes*, 400 H-4.

Native Shrubs

Recommended For Southwest Landscapes

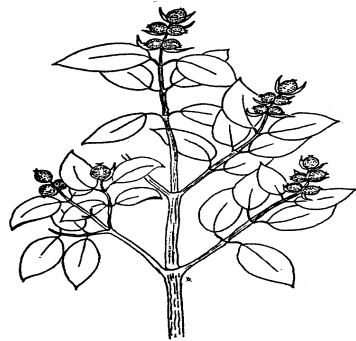
Adapted from native Shrubs in Southwest Landscapes by M. Douglas Bryant, Extension Horticulture Specialist, NMSU.

Apache Plume



Six to eight feet, widely branched shrub. Numerous white flowers as large as apple blossoms, followed by cluster of reddish-tinged plumes. Thrives with abundant water, but endures extreme drought. Native to 6,000-7,000 foot elevation, but grows in canyons and on mesas.

Silktassel



This wood shrub is a member of the Garrya family. It has regular branching and reddish-brown or gray bark, with leathery oblong or oval leaves and very light fruit. Height varies from one to eight feet.

Bird Of Paradise



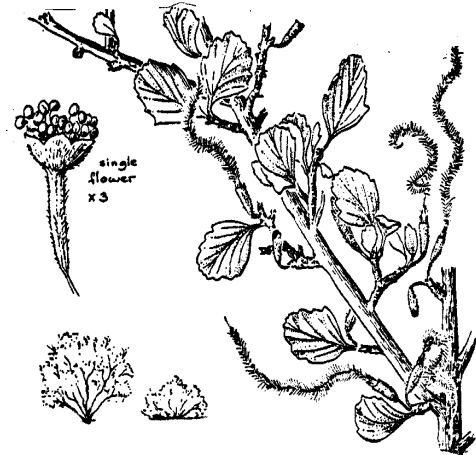
A decorative shrub with green stems six to eight feet high, and large compounded leaves containing small leaflets. Large flowers with yellow petals and long red stamens and pistils. The fruit, a large flat pod, explodes when dry and scatters its seeds. The plant is ill-smelling.

Chamiso



This very common plant of the dry mesas, plains, and arroyos is often mistakenly called sage. It is a heavily branched, gray shrub with narrow, small leaves and dense panicles of one seeded fruits. Flowers appear in mid-summer. Green fruits, which later turn yellowish-brown, appear in mid-August and stay on into the winter. The plant is also called Four-Winged Salt Brush.

Mountain Mahogany



Widely branching small hardwood shrubs with small, inconspicuous, petal-less flowers. Seed has a long, spiral plume.

Oregon Grape



Used as a ground cover, this plant has woody stems five or six inches long, and compound leaves similar to those of holly. Leaves turn orange-red in the fall. The plant bears berries about the size and color of wild grapes.

Creosote Bush



Named because of the creosote-like odor given off when wet. This shrub is a rapidly growing, very attractive plant with a dark green color. It is an evergreen, and the leaves have a resinous coating. It requires large amounts of water to get started and to grow well. Flowers are small and yellow.

Rabbit Brush



Shrubby perennial, erect or spreading with narrow leaves and small heads of yellow flowers.

Lemonade Berry



Shiny, leathery evergreen leaves are divided into three leaflets. Dense clusters of yellow flowers are followed by a sticky, bright orange-red berry which makes a lemonade-like drink. The shrub grows eight to ten feet.

Desert Willow



Although this plant usually grows as a shrub from five to fifteen feet high, it can be pruned to form a tree. It is well adapted to dry situations, and is found in arroyos and the foothills. Its leaves are long and willow-like, and it has profuse large white or purplish flowers. It is easily transplanted.