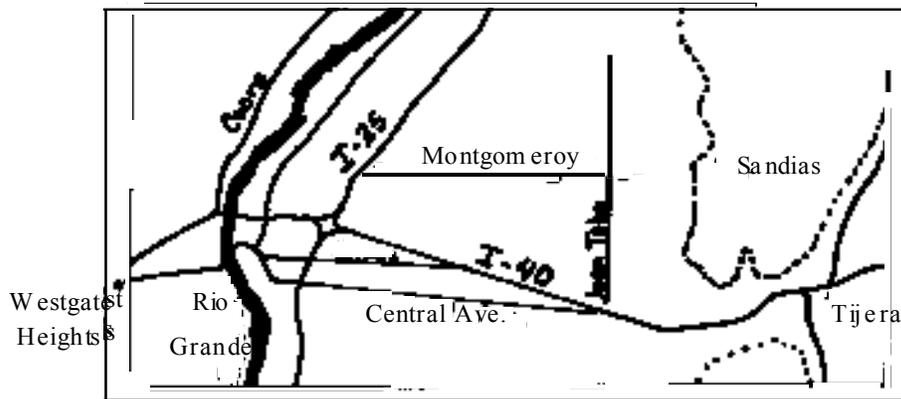




## Eye Opener Worksheet 7

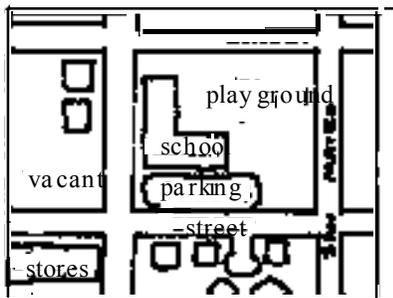
### A Closer Look At Your School

In what part of the city is your school located? \_\_\_\_\_ Southeast \_\_\_\_\_ Southwest  
\_\_\_\_\_ Northeast \_\_\_\_\_ Northwest \_\_\_\_\_ Outside the city  
Locate your school 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:

Draw a map showing your school, the streets closest to it, and the kinds of buildings near the school (houses, stores, offices, etc.). On the back of recycled paper, draw this map to scale.

Check all of the words or phrases which describe your school building.

\_\_\_\_\_ One story high \_\_\_\_\_ Two stories high \_\_\_\_\_ One building  
\_\_\_\_\_ One main building and portables \_\_\_\_\_ Many windows \_\_\_\_\_ Few windows  
\_\_\_\_\_ Attractive \_\_\_\_\_ Dingy \_\_\_\_\_ Plain \_\_\_\_\_ Classrooms open onto long corridors  
\_\_\_\_\_ Every room has a door to outside \_\_\_\_\_ New \_\_\_\_\_ Old \_\_\_\_\_ Very old

If you checked old or very old list five things which told you it was old or very old.

Do you see any examples of energy saving climate control in and around your school?

\_\_\_\_\_ evergreen tree or hedge wind barrier on the north side \_\_\_\_\_ the building faces southwest  
\_\_\_\_\_ covered walkways \_\_\_\_\_ large trees shading the windows \_\_\_\_\_ large trees shading  
the roof \_\_\_\_\_ overhangs shading walls or windows \_\_\_\_\_ windows open to catch breeze  
\_\_\_\_\_ windows placed to allow breeze to enter and exit room easily \_\_\_\_\_ tinted windows  
\_\_\_\_\_ ceiling fans \_\_\_\_\_ tile or terrazzo floors \_\_\_\_\_ roof color white  
\_\_\_\_\_ outside wall color white or very light color

Does your school have a courtyard? \_\_\_\_\_ Yes; if yes, what is it used for?

Is your school attractively landscaped? \_\_\_\_\_ Yes; if yes, how is it attractive?

Check all of the following features your school has. Discuss with your classmates what changes you would like to make and why.

\_\_\_\_\_ ball field \_\_\_\_\_ playground (swings, slides, etc.) \_\_\_\_\_ trees  
\_\_\_\_\_ playing field ( \_\_\_\_\_ dirt or \_\_\_\_\_ concrete) \_\_\_\_\_ basketball courts  
\_\_\_\_\_ swimming pool \_\_\_\_\_ parking lot (teachers) \_\_\_\_\_ parking lot (students)  
\_\_\_\_\_ grassy lawn \_\_\_\_\_ garden ( \_\_\_\_\_ vegetable or \_\_\_\_\_ ornamental plants)  
\_\_\_\_\_ fencing \_\_\_\_\_ portables

When was your school built? \_\_\_\_\_

What is the architectural style of your school?

\_\_\_\_\_ California Mission \_\_\_\_\_ Gothic \_\_\_\_\_ New Mexico Regional  
\_\_\_\_\_ International style \_\_\_\_\_ Other, what kind? \_\_\_\_\_

Check the building materials used in your school's walls and roof.

\_\_\_\_\_ gravel \_\_\_\_\_ slate \_\_\_\_\_ terrazzo \_\_\_\_\_ fieldstone \_\_\_\_\_ adobe bricks  
 \_\_\_\_\_ marble \_\_\_\_\_ brick \_\_\_\_\_ granite \_\_\_\_\_ steel \_\_\_\_\_ limestone  
 \_\_\_\_\_ glass \_\_\_\_\_ wood \_\_\_\_\_ steel \_\_\_\_\_ concrete \_\_\_\_\_ block  
 \_\_\_\_\_ hollow

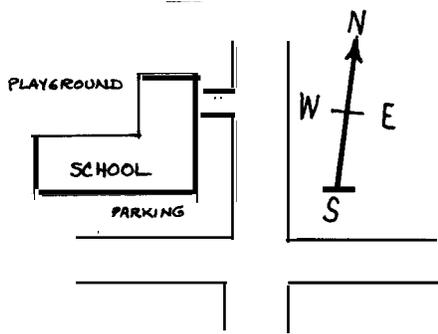
tiles with plaster coating \_\_\_\_\_ others, what kinds? \_\_\_\_\_

Does your school have air conditioning? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ In some rooms.

Circle the compass direction which indicates the direction which most windows face and underline the direction which your own classroom windows face.

N    S    E    W    NE    NW    SE    SW

Illustrate the compass orientation of your school building with a sketch similar to the one below.



Do you have to use artificial light very often? Why?

Does the architecture of your school blend in well with the buildings around it?

Find the areas of the playing fields and the grassy lawn. Find area per student in each. Use metrics.

Feature	Area	Area Per Student
Ball Field		
Dirt Playing Field		
Concrete Playing Field		

Why do you think the design of your school building is attractive or unattractive?

If your school has graphics painted on the corridor walls, what kinds? \_\_\_\_\_

What color(s) are the classroom and corridor walls painted?

What colors do you like?

If you do not like the furniture, what kind of furniture would you design for your classroom?

What could your class do to make your classroom more attractive?

Is there litter on your school grounds? \_\_\_\_\_ Yes. \_\_\_\_\_ No. If so, what kinds? \_\_\_\_\_

Where is the litter usually found?

Who picks up the litter?

What changes could you and your classmates make to improve your school grounds? \_\_\_\_\_

How could other classes help? \_\_\_\_\_

How could parents help? \_\_\_\_\_

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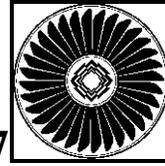
What kinds of technology do you have at your school? \_\_\_\_\_

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How does your school help the community? \_\_\_\_\_



## Eye Opener Activities 7



### Ideal 2020 School

Work in small groups to design an *ideal* school for the year 2020, keeping the features of your school which are considered desirable. Consider such factors as general architectural style, orientation on plot, number and placement of windows, number of stories high, construction materials and use of air conditioning. Draw designs for, or make models of the ideal school.

How does the architecture relate to the available space, the geography and the climate?

To what standards must architects conform concerning space per student and lighting in terms of room size and use? Does the school meet these standards?

Which groups' designs are most attractive? Why? Which are most functional? Which are best for energy conservation? Which are the most cost effective for Albuquerque? What factors are included in the determination of cost efficiency?

What facilities or provisions are included in these diagrams which are not in the existing building? What advantages do they provide? What, if any, disadvantages do they present? What is your cost/benefit analysis of these new facilities?

Does the new design include air conditioning? If so, does it include windows? Do the windows open? How does it feel or might it feel to spend a day in a building with few or no windows? What are the pros and cons of air conditioning?

Which objects in the new design are functional? What are decorative? Which are both?

Which construction materials are suitable for the exterior of a school in Albuquerque? Why?

What provisions do the designers make for maximum benefit from solar energy? What provisions for insulation?

How would changes in the number of students and traffic flow alter these designs? Sketch how these changes might be accommodated?

List the primary building materials used in the construction of your school. On a map of the United States, pinpoint the sources of supply for each of these materials.

Which of the materials used can be obtained locally? Where do the others come from?

Select one type of construction material used and describe the steps involved in manufacturing and transporting it to the school site.

## **Functions of a Classroom**

Discuss the functions and purposes of a classroom. Include in this discussion how the classroom environment affects the quality of the education going on in the room. Brainstorm suggestions for changes in the way your room is set up which could benefit the class. Discuss reactions to these ideas. Try some of them.

What factors should be considered in room arrangement (appearance, class and room size, traffic flow, optimum use of light, opportunity for corners, privacy, technology, etc.)?

Can the class do without any of the *fixtures* of the classroom? (blackboard, bookcases, library table, etc.).

Is there an emotional environment in the classroom? How does the classroom feel? If so, how does the physical arrangement affect this environment?

What aspects and items of the room contribute toward achieving the agreed upon purpose of a classroom? How? Which do not? Why?

To what extent does class size determine the way the room is arranged? What modifications would be necessary in the most preferred arrangement if class size increased?

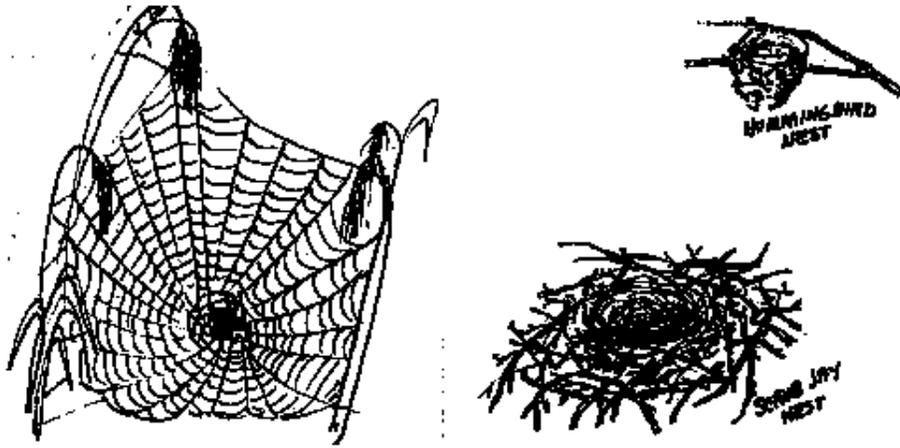
## **Shapes of Animal and Human Homes**

Compare the shapes of animals, structures and homes to those made by humans. Set up a picture display.

Are animal structures generally round or angular (birds, nests, spider webs, cocoons, ant hills, etc.)?

How are most human made buildings shaped? What examples can you find of human use of round structures? (Hogans, igloos, Astrodome.)

What are the advantages of round structures and of rectangular structures?



Animal Homes

### Construction Materials Exhibit

Set up a display of construction materials used for the exterior of buildings in Albuquerque. Prepare a chart like this to accompany the exhibit.

<b>Construction Material</b>	<b>Brick</b>	<b>Wood</b>	<b>Cinder Block</b>	<b>Others</b>
Raw Materials				
Source of Raw Materials				
Availability (good, poor, ...)				
Manufacturing Process Involved				
Mode of Transport				
Cost (high, medium, low)				
Environmental Impact				
Desirability Rating				

Why was this site selected? Who made the selection? Was it a good choice? Why? Did the community have any voice? Does it today? What was this land used for before the school was built? What other construction went on at that time in the city? How did the architecture and construction materials of the school compare with other buildings of that era?

### **Bulletin Board about Nature**

Prepare a bulletin board display to illustrate the theme that Everything Comes From Nature. Select a variety of common articles used in the classroom and trace them back to the natural resources from which they came.

Which of these resources are non-renewable? Which are renewable? How long does it take to renew some of these resources?

Which of these products can be reused, recovered, and/or recycled?