

Understanding and Applying What You Have Learned

1. How would the addition of a new shopping mall effect a community with an urban-heat-island problem?
2. How would the average temperature of a community be affected if an airport were built on an area formerly used as farmland?
3. What are some ways of lessening the urban-heat-island effect of city skyscrapers?
4. Many cities in the United States cite rush-hour commuting as a major cause of severe ozone pollution. What kinds of programs could city planners design and/or promote to help reduce this kind of pollution?
5. A developer in a large town wants to build a large office complex to house businesses. Although the town leaders support this plan because it will create jobs in their community, they are concerned that large developments may affect the local environment. What characteristics can the leaders suggest for this development in order to minimize heat-island effects?

Preparing for the Chapter Challenge

In your Chapter Challenge you will need to make recommendations on how to guide future growth in and around your community. Write a paragraph explaining what can be

done to direct future growth in such a way as to avoid or minimize the urban-heat-island effect, as well as ozone pollution, in your community.

Inquiring Further

1. Urban-heat-island effect in your community

Design an experiment to study the urban-heat-island effect in your community or in a city near your community. Pick a question that has occurred to you during this activity, such as “*Would reflective roof covers really help?*” or “*I wonder if there’s been increased precipitation in my community because of an urban-island-heat effect?*”

Make a plan for how you would go about answering the question. To be valid, your study should cover a span of at least five years.

2. A model community

Make a model community (to scale) that has been designed to address and minimize the problems associated with urban-heat-island effects. Explain at least five features of the model.



Have your teacher approve your design before proceeding.