

HOW MANY IS ENOUGH?

The past chapter examined how populations grow. It is important for students to understand that populations cannot continue to grow indefinitely. Every ecosystem has a **carrying capacity**, the maximum number of members of a species that can be supported by the finite resources of that area. In this chapter, students will learn that finite resources create a carrying capacity for animals and people.

Before beginning these activities, go over the following information with your students:

What would happen if the population of your class continued to grow but remained in the same classroom? Do you think there is a limit to the number of students your classroom could hold comfortably? If your class grew even by just a few students, there may not be enough desks, chairs and school supplies to go around. Your class has a **carrying capacity**, the largest number of students that your classroom could hold and still allow your teacher to conduct class with everyone having desks, chairs and supplies.

Think of a wooded area which is home to deer, rabbits and squirrels. There is only enough food to be found for so many animals. If the populations of these animals grow too much, some may have to leave to find other food and shelter. The wooded area has a carrying capacity. It can only support so many animals.

The world also has a carrying capacity for humans. People need all sorts of things to live: food, water, shelter and fuel. For these things, we need to use land to grow crops, cut down trees for buildings and mine the ground for oil, coal, natural gas and minerals. There is a limit to how much food and how many trees can be grown and how much we can mine from the ground. If the population of people continues to grow, there will not be enough of these things, or **resources**, to go around.

Think about your classroom again. You may be happiest if the class size does not grow. That way, you have more space around your desk, get to ask and answer more questions in class and get to know your classmates and teacher better. You may not want the population of your class to grow to the carrying capacity. It is the same in your town, country and in the world. The best population size may not be the biggest, but one in which everyone has plenty to eat, open space to enjoy, a nice, safe place to live and many friends.