When you think of structures, you probably think of buildings, such as your home, your school, or the movie theatre. However, structures are more than just buildings. A telephone pole, a railway car, a cup, a pencil, and an umbrella are all examples of structures. A structure is something made of parts that are put together for a particular purpose. These objects can be as large and complicated as a car parking lot (Figure 1), or as small and simple as a saltshaker.

Structures can be human-made or found in nature. A coral reef, a spiderweb, and an anthill are examples of structures in nature. The bird’s nest and beehive seen in Figures 2 and 3 are also structures in nature. What are some other examples of structures in nature you would recognize?

Structures have at least one main function, which is the task or purpose that the structure is designed to perform. However, function is only one feature of a structure. Another feature is the structure’s form, which is the physical appearance of a structure. A structure’s shape and appearance can be related to its function.

Figure 1  The VW Autostadt structure in Wolfsburg, Germany, stores cars until the automated system retrieves them.

Figure 2  This Vitelline Masked-weaver’s nest in Samburu National Reserve, Kenya, is an example of a structure.

Figure 3  A beehive is an example of a structure found in nature.
**Function**
The main function of the roof of a house is to protect the house from weather conditions. The shape of a roof in an area of high snowfall is usually steep (Figure 4). The shape of the roof in a desert area might be flat because there is little rain and no snow to damage the roof (Figure 5).

Natural structures perform useful functions as well. What is the main function of a spiderweb? How many functions are performed by an elephant's trunk?

**Form**
Function is often the main purpose of a structure, but humans usually want their structures to look good, too (Figure 6).

Companies and organizations sometimes want people to pay attention to their structures. As with any structure, the form must be both safe and functional. The Burj Dubai in Dubai, United Arab Emirates (Figure 7) is an example of a very noticeable form.

**CHECK YOUR LEARNING**

1. (a) What is a structure?
   (b) Name three examples of structures.
   (c) Describe one function for each structure in (b).
2. Why do humans consider the form of structures in their designs?
3. Describe the form and main function of
   (a) a baseball bat
   (b) an umbrella
   (c) a STOP sign