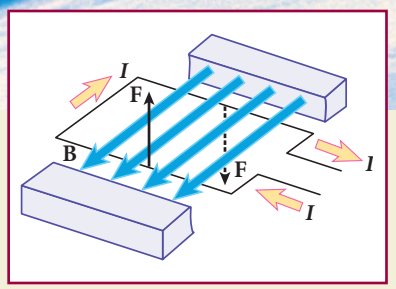
CHAPTER 19

Magnetism



Satellites sometimes contain loops of wire called *magnetic torque coils* that a satellite operator on Earth can activate. When current is in the coil, the magnetic field of Earth exerts a torque on the loop of wire. Torque coils are used to align a satellite in the orientation needed for its instruments to work.

WHAT TO EXPECT

In this chapter, you will learn that a current-carrying coil of wire behaves like a magnet. You will also study the forces exerted on charged particles that are moving in a magnetic field.

Why it Matters

Permanent magnets and electromagnets are used in many everyday and scientific applications. Huge electromagnets are used to pick up and move heavy loads, such as scrap iron at a recycling plant.

CHAPTER PREVIEW