



# The Musculoskeletal System (CLIL)

Every time you sprint through the halls because you're late for class, score against your opponents during a game, or shoot pool with friends, you're using your bones, muscles, and joints. Without these important body parts, you'd be seriously sidelined — you'd be unable to sit, stand, walk, or do any of the activities you do every day.

**Bones** provide support for our bodies and help form our shape. The skull protects the brain and forms the shape of our face. The spinal cord, a pathway for messages between the brain and the body, is protected by the backbone, or spinal column. The ribs form a cage that shelters the heart, lungs, liver, and spleen, and the pelvis helps protect the bladder, intestines, and in girls, the reproductive organs. Although they're very light, bones are strong enough to support our entire weight.

**Joints** occur where two bones meet. They make the skeleton flexible — without them, movement would be impossible.

**Muscles** are also necessary for movement: They're the masses of tough, elastic tissue that pull our bones when we move.

Together, our bones, muscles, and joints — along with tendons, ligaments, and cartilage — form our musculoskeletal system and enable us to do every day physical activities.



### **What Are the Muscles and What Do They Do?**

Bones don't work alone — they need help from the muscles and joints. Muscles pull on the joints, allowing us to move. They also help the body perform other functions so we can grow and remain strong, such as chewing food and then moving it through the digestive system.

The human body has more than 650 muscles, which make up half of a person's body weight. They are connected to bones by tough, cord-like tissues called **tendons**, which allow the muscles to pull on bones. If you wiggle your fingers, you can see the tendons on the back of your hand move as they do their work.

### COMPREHENSION QUESTIONS

- 1. What is the main function of bones?*
- 2. Why are we able to move?*
- 3. What makes up the half of our body weight?*
- 4. What are the tendons for?*
- 5. Name five different things you couldn't do if you didn't have bones, joints or muscles.*