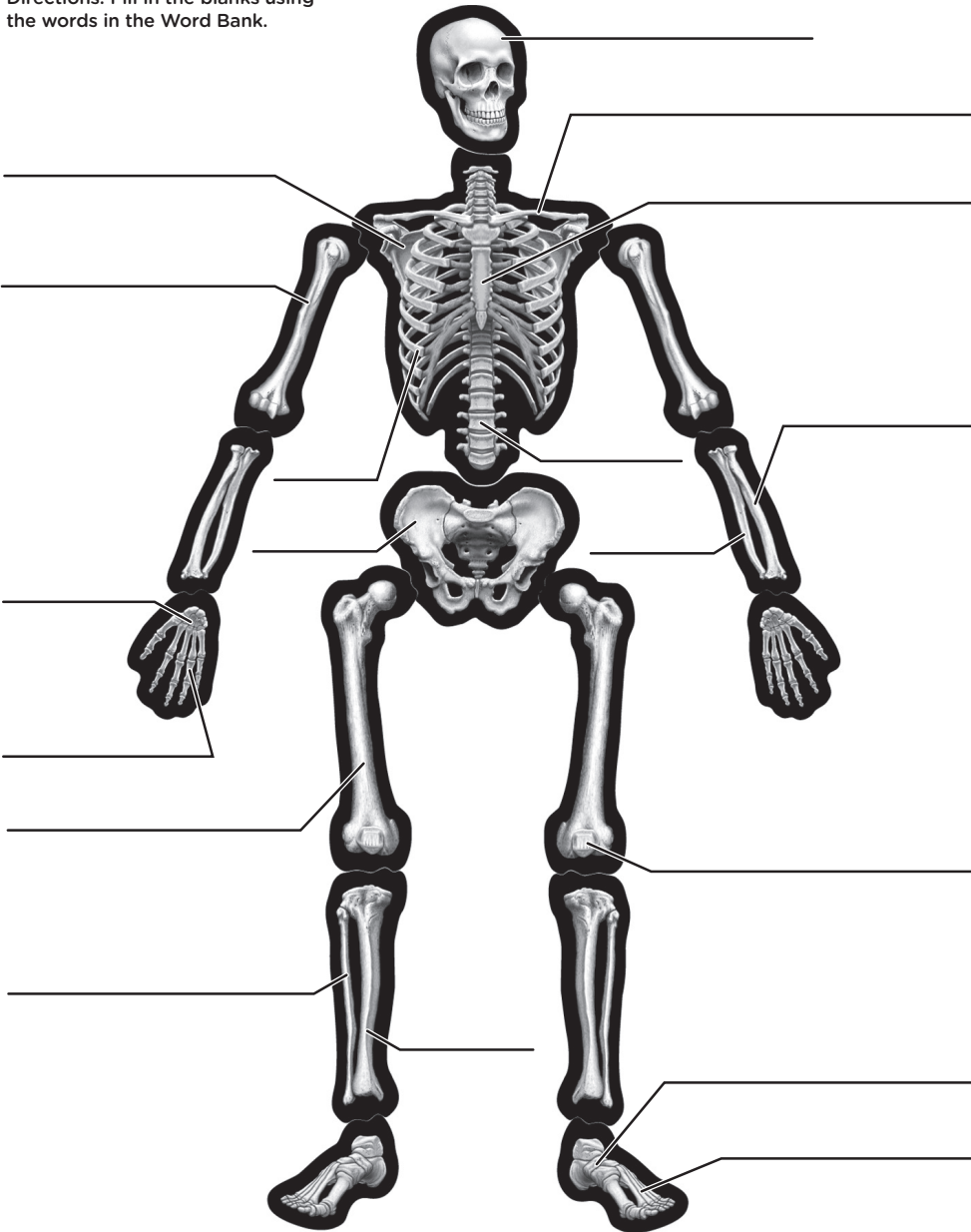


Name _____

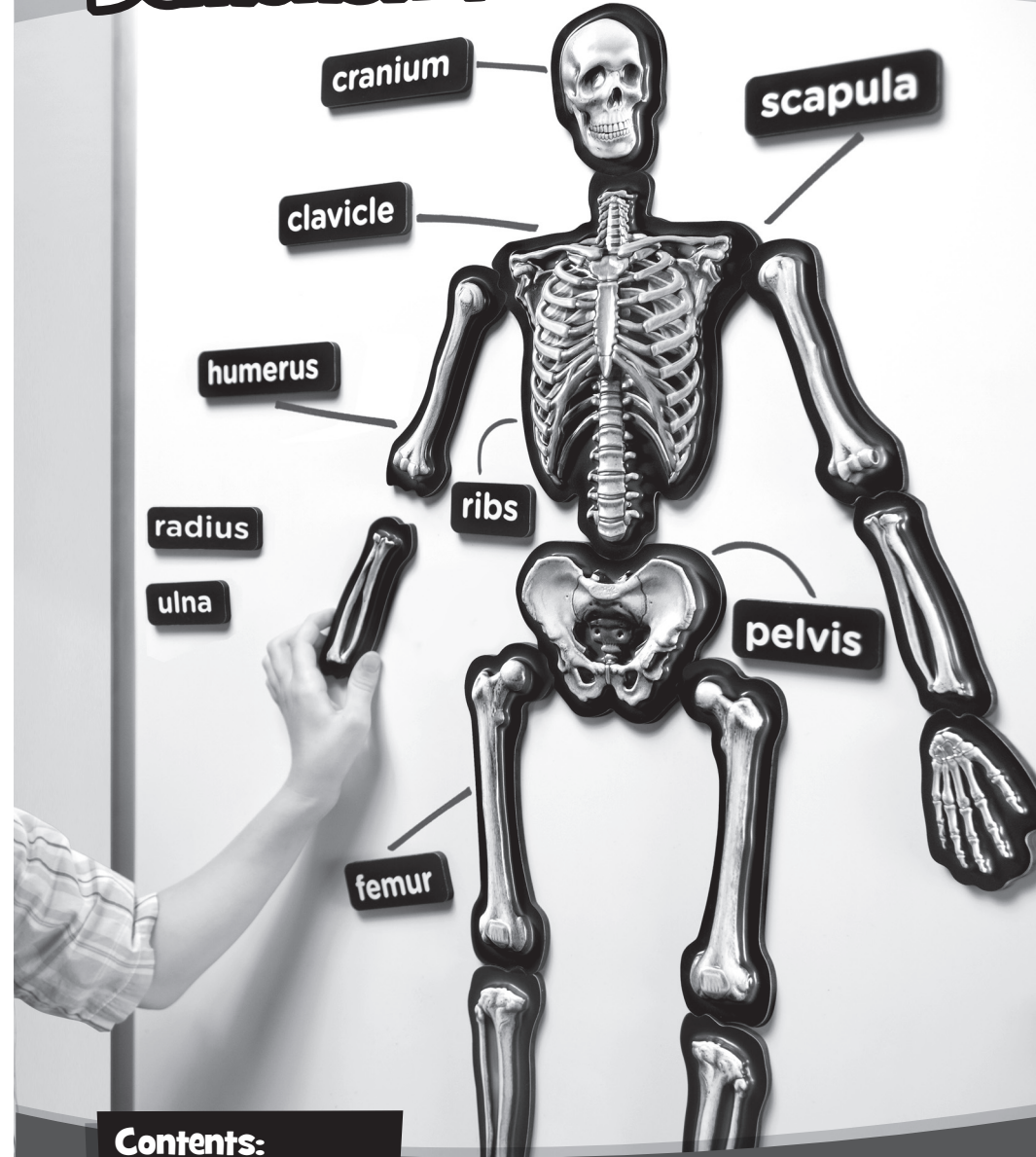
Directions: Fill in the blanks using the words in the Word Bank.



Word Bank

- | | | |
|----------------------------|-------------------------|-------------------------|
| • tibia | • ulna | • ribs |
| • vertebrae (backbone) | • humerus | • cranium (skull) |
| • scapula (shoulder blade) | • fibula | • patella (kneecap) |
| • femur | • clavicle (collarbone) | • sternum (breastbone) |
| • phalanges (finger bones) | • tarsals (ankle bones) | • radius |
| • phalanges (toe bones) | • pelvis (hipbone) | • carpals (wrist bones) |

3-D Magnetic Demonstration Skeleton



Contents:

- 15 3-D bone magnets
- 18 magnetic labels



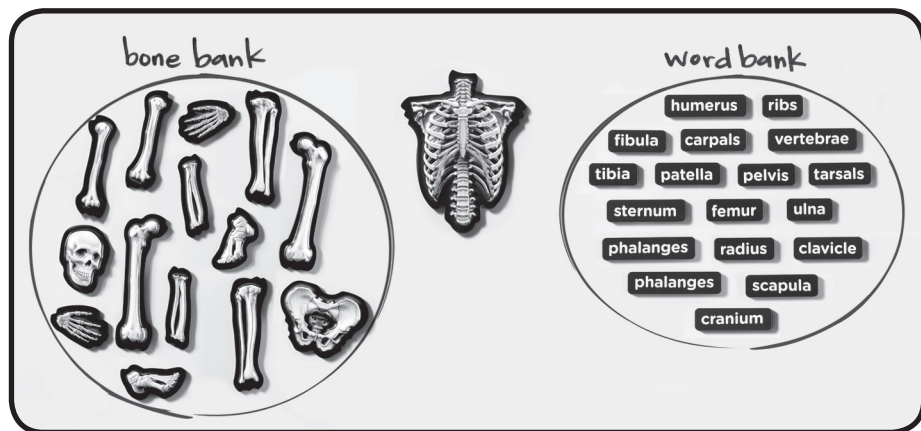
Introduce the Skeleton

Put the skeleton together on the board. Discuss the purpose of a skeleton (a structure that supports the body and protects the heart, lungs, and brain). Ask students to tell which, if any, bones they have broken. Discuss x-rays and what they allow doctors to see. Call on students to tell you names of bones they know. As they do so, put the magnetic label next to the correlating bone. Say each name aloud. Afterward, label any remaining bones. Ask students to repeat each bone name while pointing to where that bone is on their own bodies.

Where Does This Bone Belong? What Bone is This?

Set Up

Draw a circle on the board and label it *Bone Bank*. Mix up all the bones and place them in the circle. Draw another circle on the board and label it *Bone Bank*. Place the bone names in the circle. Place the rib cage magnet in the center of the board.



Activity

1. Call on one student at a time to take a bone magnet from the Bone Bank and properly connect it to a bone on the rib cage magnet.
2. Poll the class to make sure everyone agrees that the bone/bone set is properly placed.
3. Next, call on a student to come to the board, select a label, and place it next to the appropriate bone. The student can use a whiteboard marker to draw a line between the bone and the label. (Draw an arrow to the sternum.)
4. Poll the class to make sure everyone agrees that the label is properly placed.

5. Continue calling on students to place bones and labels until the skeleton is complete and all the labels are placed. If students know names of additional bones, use a whiteboard marker to write those bone names next to the appropriate bones.

Guess-the-Bone Riddles

Challenge students to guess which bone you're describing. Here are four examples:

1. This set of bones protects the heart and lungs. (answer: ribs)
2. This bone protects the brain. (answer: cranium)
3. This is your hipbone. (answer: pelvis)
4. This bone stretches from the elbow to the thumb side of the wrist. (answer: radius)

Find the Bone

Pass out the bones to students. Ask the students who are holding a bone/bone set that comes in an identical pair to find the other student with that same bone/bone set and sit together. For example, the students who are each holding a humerus should sit next to each other.

Next, pass out the labels to the remaining students. Ask all the students who are holding bones to raise them up in the air. The students holding the labels should find the matching bone and sit down next to that (or those) student(s). Some 'bone students' will have more than one 'label student' sitting next to them. For example, the students holding the lower leg bones should have both a student with a tibia label and a student with a fibula label sitting next to them.

Finally, go around the room and ask students to stand up, name the bones/labels they are holding, and point to where each of those bones is located on their own bodies.

Using the Reproducible

Copy the reproducible on the next page. (To save paper, copy two on a sheet and then cut them apart.) Students should fill in the answers using the Word Bank at the bottom.