



Bones and Muscles . . . grade 3

A program designed and presented by The Health Adventure staff

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Program Objectives

- ✓ Identify the location of their skeleton and demonstrate the reasons for having one.
- ✓ Identify the bones in a human skeleton.
- ✓ Discuss ways they can keep their bones and muscles healthy.
- ✓ Identify hinge, ball and socket and hinge joints.
- ✓ Discuss muscle pairs, contractions and tendons.

Suggested Classroom Activities

Science Conduct a “thumbless morning” experiment. Tape students’ thumbs across their palms and see how it affects their ability to function. Make a list later of things that were difficult to do without thumbs. Do you see why having thumbs is such an important part of our body plan?

Math Experience and graph muscle fatigue. Ask students to work in pairs and count how many times they can rapidly open and close a spring clothespin in 30 seconds and record the results. Without resting between trials, repeat the test four more times and record the results for each trial. In a follow up discussion, have students compare their results. Make a bar graph of the class results, with the horizontal axis labeled *Trial Number* and the vertical axis labeled *Number of Actions*. Each bar will show the minimum and maximum number of actions for each trial.

Literature The Achilles tendon, above the heel, is named for the great warrior who fought in the Trojan war as recounted in the ancient Greek epic *The Iliad*. Read the story to the students to find out why.

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