Chapter Science Investigation

Keeping a Daily Exercise Log

Name_

WHAT YOU NEED



pen or pencil

WHAT TO DO

- **1.** Set up an exercise log. Use one chart for each of the three weeks.
- 2. Each day, do a type of exercise that you like for 20–30 minutes or more. This can be playing school sports, walking, running,

walking, running, dancing, or any other kind of exercise that you like. You can do the same type of exercise every day, or you can try different things each day during the three-week period.



Find Out

Do this activity to see what muscles and bones your body uses each day as you exercise.

Process Skills

Communicating Classifying Interpreting Data

Time

- 20–30 minutes of exercise each day for three weeks
- 5–10 minutes to record data each day for three weeks
- 20 minutes to interpret data at the end of three weeks



- 3. After you finish exercising each day, record the type of exercise you did and amount of time that you spent doing the exercise. Then, write the names of the muscles and bones that you may have used during the exercise. You do not have to know the scientific names of the muscles and bones—just write the part of the body you used. (For example, "leg bones," or "arm muscles.")
- **4.** At the end of three weeks, make a list to **identify** the names of each type of exercise that you did.
- 5. Make another list to identify all of the parts of your body that you used in these exercises. You may have used the same parts in many different exercises, but just write each part once in this list.
- **6. Interpret the data** from these lists by figuring out all of the different muscles and bones you used during the three-week period.

		Exercise Log						
	Week:	Type of Exercise	Length of Time	Muscles and Bones Used				
	Day 1							
	Day 2							
	Day 3							
	Day 4							
	Day 5							

Conclusions

1. What muscles and bones does your body use to do your favorite kinds of exercise?

2. What kinds of exercise used the same muscles and bones?

New Questions

1. Were there any muscles or bones that you did not use at all during your exercises?

2. What muscle is your body using all the time, no matter what you are doing?



Lesson 1 • Muscles and Bones

Name _____





Making Bones Steady

What do you **predict** you will have to do to each string to keep the straw steady?

What happened as you and your partner pulled on the strings?

Lesson 1 • Muscles and Bones

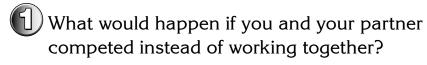
Conclusions



Compare your prediction with your observations.

How do the strings pulling on the straw compare to muscles pulling on a bone?

Asking New Questions



What advice would you give someone trying this activity for the first time?

Lesson 2 • How Muscles Move Bones

Name ____





Making Muscles and Bones Work Together

What do you **predict** will happen to the balloons when you try to straighten out the tubes?

What happened to the balloons when you straightened out the tubes? **Draw** or **write** what happened.

Try moving the tubes in different ways. **Draw** or **write** what happens to the balloons.

Lesson 2 • How Muscles Move Bones

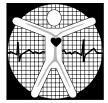
Conclusions



- What part of the body are the balloons like?
- What part of the body are the tubes like?

Asking New Questions

- How are the tubes and balloons like bones and muscles?
- Is it possible to move the tubes without moving the balloons? Why or why not?





Which Muscles Will Work?

In the "before" section of each box, **draw** a picture of yourself. **Draw** an arrow pointing to the muscles you think will work when you follow each direction.

What happened when you followed each direction?

Draw a picture of what happened in the "after" section of each box. **Draw** an arrow to the muscle that worked when you followed each direction. Compare your drawings to the drawings you made before you followed the directions.

Tug your ear.

Slap	your	knee.
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1 J			only your misses		
Before	After		Before	After	

Touch your opposite shoulder.

UNIT D • Chapter 1: Muscles and Bones Work Together

Flap one arm like a wing.

Before	After	Before	After

Lesson 3 • The Major Bones and Muscles

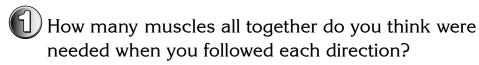
Conclusions



What helped you predict which muscles would work?

How do you think you might become better at predicting which muscles will work?

Asking New Questions



How might you find out the names of the muscles you used?