

Physical Principles in Living Systems

Name:

Levers in the Human Body

Period:

Use Chapter 15, Section 3 of your textbook to answer the questions below.

Levers in the Human Body (p.478)

1. Your body is working like a lever when you have a muscle pulling on a _____ .

2. Match the term with its definition.

letter	term	definition
	lever	a) force applied to a lever
	fulcrum	b) fixed point on a lever
	effort force	c) rigid bar that pivots on a fixed point
	load	d) force that resists the motion of a lever

3. In your body, the rigid bar of a _____ is a bone.

4. In your body, muscles supply the _____ on the lever.

5. In your body, the joint is the _____ where bones pivot.

6. Levers help your body to do more work. _____ is being able to do more work.



Three Classes of Levers (p.479)

7. Match the type of lever with its effect. One answer will be used twice.

letter	term	effect
	first-class lever	a) increases force
	second-class lever	b) increases speed of motion
	third-class lever	

8. Match the type of lever with its arrangement.

letter	term	arrangement
	first-class lever	a) the load is between the fulcrum and effort force
	second-class lever	b) the effort force is between the fulcrum and the load
	third-class lever	c) the fulcrum is between the effort force and the load