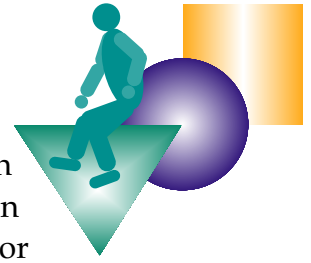


Station 3: Measuring Range of Motion of Elbow Joint

Student Data Pages



Identifying Variables:

In this activity, you will be conducting an experiment. This experiment has an *independent variable* and a *dependent variable*. The independent variable in an experiment is the variable chosen by the experimenter and it is manipulated or changed by the experimenter. The *dependent variable* is measured for the effect the *independent variable* has on it. Identify the *independent* and *dependent variables* in this experiment.

Independent variable: _____

Dependent variable: _____

In order to have a *controlled experiment*, all variables except the independent and dependent variables must be controlled. This is done by making sure that they are the same for all test groups. These are called *constants* in an experiment. List 3 variables that are made constant in this experiment. .

Using an “*if, then*” statement, write a *hypothesis* that predicts how the towels will affect the range of motion for the elbow joint. Be sure to explain why you think this to be true.

Data Table

<i>Number of Towels</i>	<i>Trial 1 Elbow Joint Range of Motion (ROM) (degrees)</i>	<i>Trial 2 Elbow Joint Range of Motion (ROM) (degrees)</i>	<i>Trial 3 Elbow Joint Range of Motion (ROM) (degrees)</i>	<i>Average Range of Motion (degrees)</i>
0				
1				
2				

Processing Out

1. Looking at the graph, what is the relationship between bulk around the joint (number of towels) and the range of motion?



LESSON 3
ACTIVITY 3B

Mo-Bility

2. How does obesity limit your joint mobility?



3. Give an example of daily activities that would be difficult to perform if you had a limited range of motion in the elbow joint.

Station 3

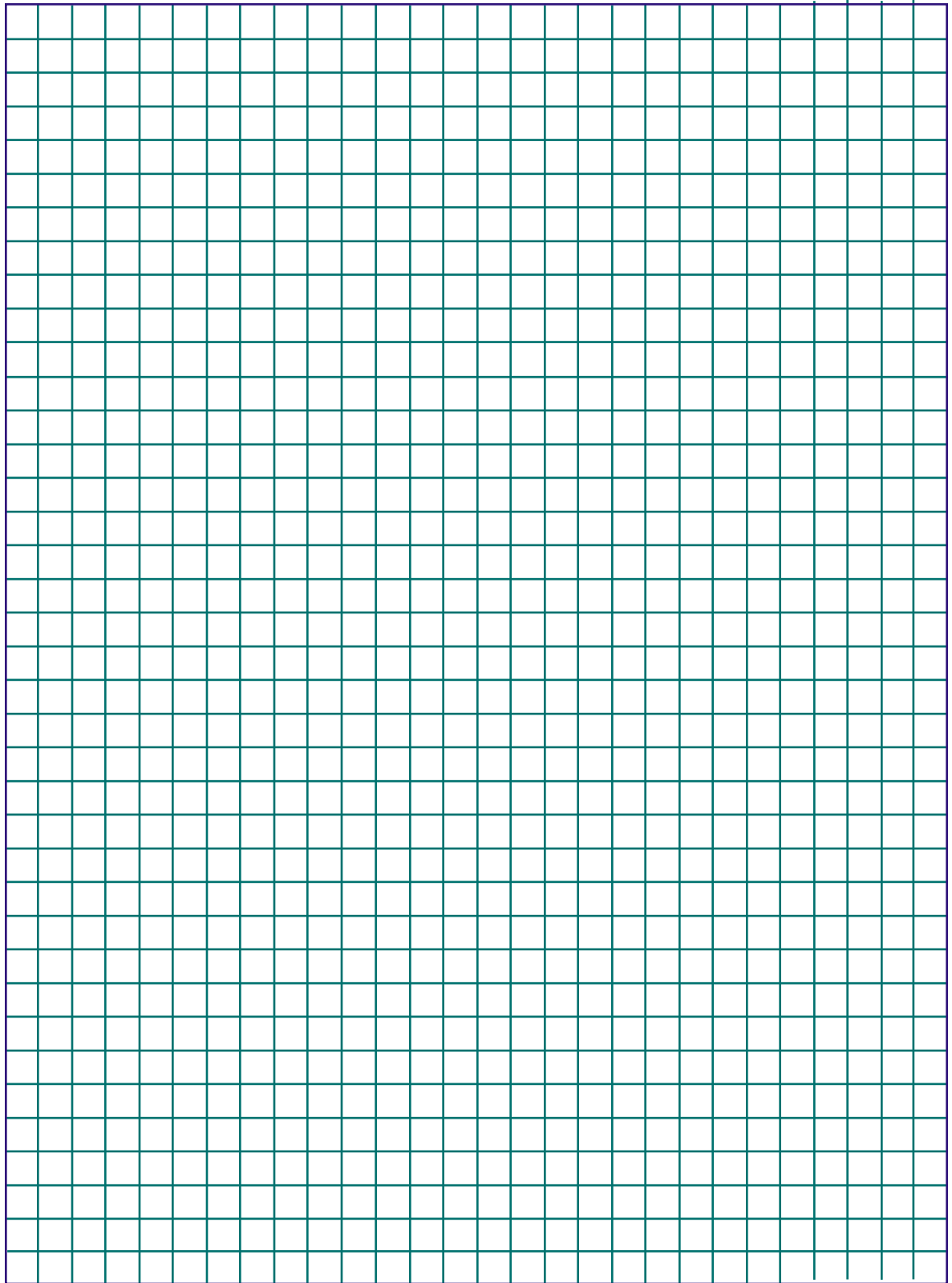


LESSON 3
ACTIVITY 3B

Mo-Bility

The Effect of Excess Bulk on Elbow Range of Motion

Range of Motion (Degrees)



Number of Towels Around Joint



Mo-Bility

LESSON 3
ACTIVITY 3B