Counting Your Heartbeats

What You Need

cardboard tube

stopwatch or clock with second hand

pencil

paper

ruler

Find Out

Do this activity to see if everyone’s heart always beats the same way.

Process Skills

Predicting
Using Numbers
Observing
Communicating
Inferring
Interpreting Data

Time

• 20 minutes a day for two weeks
**WHAT TO DO**

1. **Predict** how many times a heart beats in one minute.

2. Have a classmate sit in a chair facing you. Gently place one end of the tube against your classmate’s chest. Put your ear on the other end of the tube. Move the tube around until you hear a heartbeat. Listen to the heartbeat. **Count** the number of beats you hear in one minute. **Write** the number of beats you counted.

3. Have your classmate stand facing you. **Count** and **write** the number of beats you hear in one minute.

4. Have your classmate jump up and down five times. **Count** and **write** the number of beats you hear in one minute.

5. Have your classmate jump up and down ten times. **Count** and **write** the number of beats you hear in one minute.

6. Repeat the activity with the same classmate for ten days.
Name of partner: _______________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Sitting</th>
<th>Standing</th>
<th>5 Jumps</th>
<th>10 Jumps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student data will vary.
Conclusions

1. How was the number of heartbeats different for each activity?

The number of heartbeats increased with each activity.

2. Was the number of heartbeats the same each day for each test?

Findings will most likely vary each day for each test, although some may be the same.

New Questions

1. What do you think you would find if you counted the number of heartbeats on a person who was sleeping?

The heart would beat fewer times while a person was sleeping.

2. Write a question you still have about the heart.

Accept all reasonable questions.
Activity Journal
Lesson 1 • Bones, Muscles, and the Brain

Name ______________________________

Activity

Moving Muscles

Bend your arm.

What happens to the muscles of your upper arm?

Circle the picture that shows what happens.

Students should circle the picture that shows that the muscle bulges when the arm is bent.
Try to make this face.

Color in the places where you **feel** your muscles moving.

Students should color in parts or all of the face.
**Activity Journal**

**Lesson 2 • The Heart, Lungs, and Stomach**

Name _______________________

**ACTIVITY**

**Watching Lung Power**

**Draw** the balloon in the bottle. **Show** how it looks as you squeeze the bottle.

Student drawings should show the balloon inside the bottle. The balloon should appear to have no air in it.
Draw the balloon in the bottle.
Show how it looks when you stop squeezing the bottle.

Student drawings should show the balloon inside the bottle.
The balloon should appear to fill with air a little bit.
Different Tastes

What is your favorite fruit?

Answers will vary. Accept any kind of fruit.

Draw your favorite fruit.

Students should draw a picture of an apple, an orange, or a banana, based on which is their favorite.
Which fruit do other students like best?

Make a class graph.

Students should take turns naming their favorite fruit for the class. Students should fill in a cell in the appropriate column for each student, starting at the bottom.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Our class favorite fruit is: _____________

Students should write the name of the fruit preferred by the most students.