How You Rate

Procedure

1. Collaborate  Work in a group. Have one group member be the timekeeper. Record all of your measurements in the chart below.

<table>
<thead>
<tr>
<th></th>
<th>Pulse</th>
<th>Breathing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beats in 15 s</td>
<td>Beats in 1 min</td>
</tr>
<tr>
<td></td>
<td>Beats in 15 s</td>
<td>Breaths in 15 s</td>
</tr>
<tr>
<td></td>
<td>Breaths in 1 min</td>
<td></td>
</tr>
<tr>
<td>At Rest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Exercise</td>
<td></td>
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</tbody>
</table>

2. Measure  Have a group member take your pulse while you sit at rest. The group member will count beats for 15 seconds. You count the number of breaths you take during the same time.

3. Record Data  Record your pulse and breathing rate. Repeat steps 2 and 3 for each group member.

4. Measure  Jump in place for 1 minute. Immediately have a group member take your pulse for 15 seconds. During the same time count your breaths. Record your new pulse and breathing rate. Repeat this step for each group member.

5. Use Numbers  Find your pulse and breathing rate for 1 minute.

Use this formula:

\[
\text{number in 15 seconds} \times 4 = \text{number in 1 minute}
\]

Record the data in your chart.
Conclusion

Write the answers to the questions below.

1. Analyze Data  How did your pulse and breathing rates change with exercise?

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2. Infer  Muscles need oxygen to work. Why do breathing and pulse rates increase with exercise?

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Investigate More!

Research  Ask an expert such as a school nurse or doctor what the average pulse rate and breathing rate are for children and adults.