

How You Rate

Procedure

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

	Pulse		Breathing	
	Beats in 15 s	Beats in 1 min	Breaths in 15 s	Breaths in 1 min
At Rest				
After Exercise				

- 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.
- Record Data** Record your pulse and breathing rate. Repeat steps 2 and 3 for each group member.
- 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.
- Use Numbers** Find your pulse and breathing rate for 1 minute. Use this formula:

$$\boxed{\text{number in 15 seconds}} \times 4 = \boxed{\text{number in 1 minute}}$$

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?

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

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.