



Task Control Specialist

Record of Oxygen Remaining for: _____

Directions:

Calculate the predicted amount of oxygen needed by your astronaut for the next five minutes using the respiration rate from the life support team. Use the following proportion format:

$$\begin{array}{c} \text{Respiration rate} \\ \text{from the life} \\ \text{support team} \end{array} \rightarrow \frac{\boxed{} \text{ liters}}{1 \text{ minute}} = \frac{\mathbf{X} \text{ liters}}{5 \text{ minutes}}$$

Mark an **X** on the graph below to represent this prediction, remembering to add five minutes to the mission time on the report form you received. Then take a reading from your astronaut's online oxygen monitor. Record the amount of oxygen remaining in the tank and the mission time in the table below. Plot and connect the data on the line graph. Use your predictions and actual data to determine if your astronaut is using his or her oxygen reserve too quickly. Repeat this process each time you receive a new respiration rate from the life support team.

Reading #	1	2	3	4	5	6	7	8	9	10
Oxygen Remaining (liters)										
Mission Time (minutes)										

Your astronaut will need to reserve 550 liters of oxygen to return to the airlock. The red horizontal line on the graph below represents the oxygen your astronaut will need to reserve.

The diagonal line on the graph below represents the average amount of oxygen your astronaut will use during the EVA. Is your astronaut using more or less than the average?

