Respiration and Breathing

	Working towards Mastery (W)	**Meeting Mastery (M)**	**Beyond Mastery (B)**
Breathing	- In gas exchange, oxygen and carbon dioxide move between alveoli and the blood. Oxygen is transported to cells for aerobic respiration and carbon dioxide, a waste product of respiration, is removed from the body. - Breathing occurs through the action of muscles in the ribcage and diaphragm. The amount of oxygen required by body cells determines the rate of breathing.	- Explain how exercise and asthma affect the gas exchange system. - Explain how the parts of the gas exchange system are adapted to their function. - Explain observations about changes to breathing rate and volume. - Explain how changes in volume and pressure inside the chest move gases in and out of the lungs.	- Evaluate a possible treatment for a lung disease. - Predict how a change in the gas exchange system could affect other processes in the body. - Evaluate a model for showing the mechanism of breathing.
Respiration	- Respiration is a series of chemical reactions, in cells, that breaks down glucose to provide energy and form new molecules. Most living things use aerobic respiration but switch to anaerobic respiration, which provides less energy, when oxygen is unavailable.	- Use word equations to describe aerobic and anaerobic respiration. - Explain how specific activities involve aerobic or anaerobic respiration.	- Suggest how organisms living in different conditions use respiration to get their energy. - Describe similarities and differences between aerobic and anaerobic respiration.