

## Year 8 Breathing, Respiration and Unicellular Organisms

14 Lessons

Stage	Description
Emerging	<p>Describe breathing in humans            Recall the organs in the respiratory system.            State the names of types of microorganism.            Recall the names of some recreational drugs.            Recall factors that affect breathing.</p>
Developing	<p>Describe the role of the respiratory system in humans.            Describe the mechanism of breathing to move air in and out of the lungs.            Describe aerobic and anaerobic respiration.            Describe the three types of microorganism, giving an example of each.            Describe what is meant by the term recreational drug.            Give examples of how smoking and asthma can affect breathing.            State the location of gas exchange in plants.</p>
Secure	<p>Explain the role of the organs in the respiratory system.            Describe the mechanism of breathing to move air in and out of the lungs, including simple measurements of lung volume.            Describe aerobic and anaerobic respiration using equations.            Identify structural adaptations of microorganisms.            Describe how fermentation can be used in bread making and brewing.            Explain the effects of recreational drugs on health, behaviour and life processes.            Explain how smoking, exercise and asthma can affect breathing.            Describe how gas exchange happens in plants, including the role of stomata.</p>
Excellence	<p>Explain how organs in the respiratory system are adapted suit their functions.            Describe the mechanism of breathing to move air in and out of the lungs, using a pressure model to explain the movement of gases, including simple measurements of lung volume            Compare and contrast the two types of respiration using equations to show reactants and products.            Explain the conditions needed for fermentation and its uses.            Evaluate the effects of recreational drugs on health, behaviour and life processes.            Predict the impact of asthma and smoking on the human gas exchange system.            Describe in detail how gas exchange in plants facilitates respiration and photosynthesis.</p>