 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Investigate a claim linking height to lung volume.



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| Know | |  | Apply  2  1 | |
| Ideas | |  |  |  |
| K1 | 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. |  | A1 | Explain how exercise, smoking and asthma affect the gas exchange system. |
| A2 | Explain how the parts of the gas exchange system are adapted to their function. |
| K2 | 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. |  | A3 | Explain observations about changes to breathing rate and volume. |
| A4 | Explain how changes in volume and pressure inside the chest move gases in and out of the lungs. |
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| Key words | |
| K3 | **Breathing:** The movement of air in and out of the lungs. |  | A5 |  |
| K6  K4 | **Trachea (windpipe):** Carries air from the mouth and nose to the lungs. |  |  |  |
| K5 | **Bronchi:** Two tubes which carry air to the lungs. |  |  |  |
| K6 | **Bronchioles:** Small tubes in the lung. |  |  |  |
| K7 | **Alveoli:** Small air sacs found at the end of each bronchiole. |  | A6 |  |
| K8 | **Ribs:** Bones which surround the lungs to form the ribcage. |  |  |  |
| K9 | **Diaphragm:** A sheet of muscle found underneath the lungs. |  |  |  |
| K10 | **Lung volume:** Measure of the amount of air breathed in or out. |  |  |  |
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| 3 | Extend |  |  |  |
| E1 | Evaluate a possible treatment for a lung disease. |  |  |  |
| E2 | Predict how a change in the gas exchange system could affect other processes in the body. |  |  |  |
| E3 | Evaluate a model for showing the mechanism of breathing. |  |  |  |
| E4 | Find out how recreation drugs might affect different body systems. |  |  |  |
| E5 |  |  |  |  |
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| E6 |  |  |  |  |
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