

### 3.4 Respiration

Name: .....

1. Use the space below to draw a diagram of the lungs. Label it using the words provided.

*windpipe*

*bronchus*

*bronchiole*

*air sac*

*diaphragm*

2. Match each part of the lungs with its function.

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|-------------------|-------|--|
| <i>windpipe</i>   | (i)   | (a) Gas exchange   |
| <i>diaphragm</i>  | (ii)  | (b) Brings gas into and out of the lungs   |
| <i>air sac</i>    | (iii) | (c) Brings gas from windpipe to bronchioles                                      |
| <i>bronchus</i>   | (iv)  | (d) Carries gas into air sacs  |
| <i>bronchiole</i> | (v)   | (e) Muscle at the bottom of the lungs that pulls down to draw air into the lungs |

3. Using the words below, complete the equation for respiration.

*energy*

*carbon dioxide*

*oxygen*

**Food + \_\_\_\_\_ → \_\_\_\_\_ + \_\_\_\_\_ + water vapour**

4. Using a blank page, create an (i) information leaflet, (ii) poster **or** (iii) song to warn people of the dangers of smoking.

5. Describe what happens during gas exchange.

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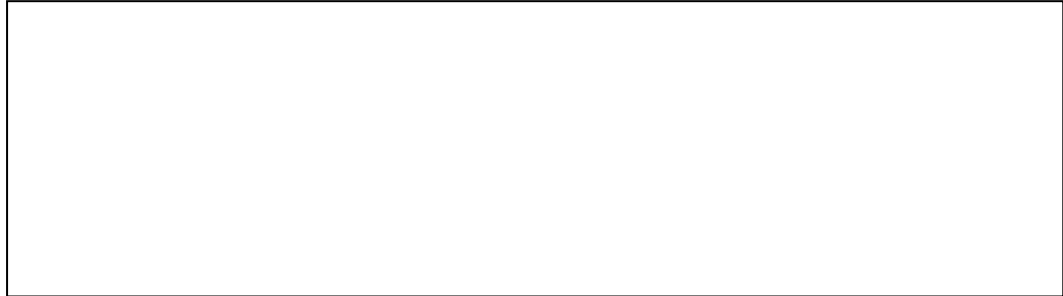
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6. Using a diagram to show your idea, design an experiment to test the effects of smoking different brands of cigarette on lungs (Hint: You can use tissue paper instead of lung tissue).



(a) List what you need:

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(b) What measurements will you make?

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(c) Predict what will happen in your experiment?

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(d) How accurate do you think your method will be?

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