

## Task 1.

### What makes an answer a “good” answer?

Read this sample question and study the specimen answers that have been provided. Discuss answers A, B & C with a partner and decide which of these is best. Use the box provided to write down your choice and the reasons you think this is the best answer.

Your reasons will help you to create a mind map to assist with the next task.

#### Question

A cylinder of helium is stored outdoors. Describe what will happen to the gas pressure as the cylinder heats up on a sunny day.



#### Answer A

The pressure increases.

#### Answer B

The increase in temperature gives it more energy. This increase in kinetic energy causes it to collide with the cylinder walls more frequently and it is forced to expand. As it expands, there is an increase the gas pressure.

#### Answer C

As the temperature of the gas increases, the helium atoms move more quickly. The faster moving atoms exert a greater force on the cylinder walls during collisions, increasing the gas pressure.

## Task 2.

Use your knowledge of the gas laws to complete the exercise below.  
It may be helpful to think about the properties of a “good answer”.



In preparation for a party, balloons are inflated in a cold room ( $10\text{ }^{\circ}\text{C}$ ).  
During the party, the room temperature rises to  $24\text{ }^{\circ}\text{C}$ .

1. Assuming that the pressure inside each balloon remains constant, use the kinetic theory of gases to explain what will happen to the volume of a balloon as the gas temperature increases.

Why do you think this will happen?

How confident are you with your answer?

Give yourself a confidence score out 10 (10 is very confident)

/10

**Now pass your answer to the person on your left.**

**PTO**

2. Read the answer on the previous page and describe how you can help improve on this answer.

How do you think your changes will help?

How confident are you with your suggestions?

Give yourself a confidence score out 10 (10 is very confident) /10

**Now pass your answer to the person on your left.**

3. Consider your first answer and the suggestions given above.  
What changes will you now make to your answer?

Which suggestion was of most use to you and why?

How helpful was this activity?  
(1=unhelpful 10 = very helpful)