Lesson 6- Catalysts

Chemistry- Key Stage 3

Energetics

Miss Charlton

What do we call the minimum amount of energy needed for particles to collide and react?

A

Collision energy

B

Activation energy

C

Reaction energy

D

Particle energy

How do catalysts affect the activation energy?

A

It speeds it up

B

It slows it

C

It lowers it

D

It increases it

Why do you only need a small amount of catalysts?

A

Because it isn't used up in the reaction

B

Because there are enough catalysts already in the reactants

C

Because it is only used for lowering the energy of the particles

D

Because too much would always cause an explosion

Why do catalytic converters use oxygen?

A

So the car produces oxygen for us to breathe

B

To stop the flammable gases from catching fire

C

To stop poisonous gases escaping into the atmosphere

D

To reduce a car emissions

When will a catalytic converters not work?

A

When too much oxygen is present

B

When flammable gases are present

C

When they aren't allowing a fuel through

D

When carbon or another element is blocking the oxygen supply.

Balancing Combustion Equations

- Complete combustion:

7 $CH_4 + O_2 \rightarrow CO_2 + H_2O$

Complete the task

Describe the test for oxygen

Keywords to use:

- **Glowing**
- **Relight**
- **Splint**
- **Presence**

Answers

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Balancing Combustion Equations

- Complete combustion:

15 $CH_4 + O_2 \rightarrow CO_2 + H_2O$

$CH_4 + \mathbf{2}O_2 \rightarrow CO_2 + \mathbf{2}H_2O$

Describe the test for oxygen and the positive result

A **glowing** splint will **relight** when in the presence of oxygen gas.