

C1 Revision Questions

Question 1 of 50

- What are the 3 different fossil fuels?
- Why are fossil fuels non-renewable?

Answer 1 of 50

- Coal, oil, gas.
- They are used up quicker than they are being replaced

Question 2 of 50

- What is cracking?
- Why do we do it?

Answer 2 of 50

- A process that converts long alkanes into a shorter alkane and alkene.
- We use it to make more petrol

Question 3 of 50

- LIST THE GASES IN THE AIR

Answer 3 of 50

- NITROGEN, OXYGEN, CARBON DIOXIDE, WATER VAPOUR, NOBLE GASES (ARGON, NEON, KRYPTON, XENON)

Question 4 of 50

WHICH PROCESSES AFFECT THE LEVEL OF GASES
IN THE AIR?

Answer 4 of 50

- COMBUSTION MORE CO₂ LESS O₂,
RESPIRATION MORE CO₂ LESS O₂,
PHOTOSYNTHESIS LESS CO₂ MORE O₂

Question 5 of 50

- WHAT % OF THE AIR DO THE DIFFERENT GASES MAKE UP?

Answer 5 of 50

- NITROGEN 78%, OXYGEN 21%, CARBON DIOXIDE 0.035%

Question 6 of 50

- HOW OLD IS THE EARTH'S ATMOSPHERE?

Answer 6 of 50

- FOUR AND A HALF THOUSAND MILLION YEARS

Question 7 of 50

- WHERE AND WHAT WAS THE PROCESS OF MAKING THE EARLY ATMOSPHERE?

Answer 7 of 50

- THE GASES CAME FROM THE CENTRE OF THE EARTH IN A PROCESS CALLED DEGASSING

Question 8 of 50

- WHICH GASES WERE IN THE EARLY ATMOSPHERE?

Answer 8 of 50

- AMMONIA AND LATER CARBON DIOXIDE FROM AND WATER VAPOUR FROM DEGASSING OF EARLY VOLCANOES

Question 9 of 50

- HOW WERE OCEANS FORMED?

Answer 9 of 50

- THE WATER VAPOUR IN THE EARLY ATMOSPHERE CONDENSED

Question 10 of 50

- WHERE DID NITROGEN COME FROM?

Answer 10 of 50

- CHEMICAL REACTIONS BETWEEN AMMONIA AND ROCKS MADE NITROGEN AND WATER

Question 11 of 50

- WHY DID NITROGEN LEVELS INCREASE?

Answer 11 of 50

- NITROGEN LEVELS INCREASED BECAUSE IT IS NOT VERY REACTIVE

Question 12 of 50

- WHY DID OXYGEN INCREASE AND CARBON DIOXIDE LEVELS DECREASE IN THE EARLY ATMOSPHERE?

Answer 12 of 50

- PLANTS EVOLVED AND BEGAN TO PHOTOSYNTHESISE

Question 13 of 50

- CAR EXHAUSTS MAKE OXIDES OF NITROGEN,
HOW DOES THIS AFFECT THE ENVIRONMENT?

Answer 13 of 50

- PHOTOCHEMICAL SMOG
- ACID RAIN

Question 14 of 50

- SULPHUR DIOXIDE IS RELEASED WHEN COAL AND OIL IS BURNT, HOW DOES THIS AFFECT THE ENVIRONMENT?

Answer 14 of 50

- SULPHUR DIOXIDE CAUSES ACID RAIN

Question 15 of 50

- WHAT IS A CATALYTIC CONVERTER?

Answer 15 of 50

- CONVERTS THE EXHAUST GASES CARBON MONOXIDE AND OXIDES OF NITROGEN INTO LESS HARMFUL CARBON DIOXIDE AND NITROGEN

Question 16 of 50

- WHAT IS THE AFFECT OF CARBON MONOXIDE ON THE BODY?

Answer 16 of 50

- CARBON MONOXIDE STOPS RED BLOOD CELLS CARRYING OXYGEN

Question 17 of 50

- WHAT IS THE CATALYST IN THE CATALYTIC CONVERTER?

Answer 17 of 50

- RHODIUM

Question 18 of 50

- WHY DOES RELATIVELY UNREACTIVE NITROGEN FORM OXIDES IN A CAR ENGINE?

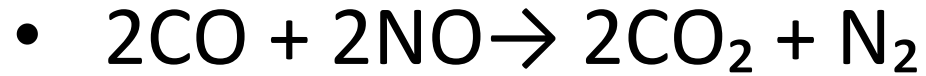
Answer 18 of 50

- VERY HIGH TEMPERATURES ALLOW THE STRONG BONDS BETWEEN THE NITROGEN ATOMS TO BE BROKEN

Question 19 of 50

- WHAT IS THE EQUATION FOR THE REACTIONS IN A CATALYTIC CONVERTER?

Answer 19 of 50



Question 20 of 50

- HOW DOES DEFORESTATION AND INCREASE IN POPULATION AFFECT THE ATMOSPHERE?

Answer 20 of 50

- LESS PHOTOSYNTHESIS MORE CO₂, MORE CARS MORE OXIDES OF NITROGEN

Question 21 of 50

- WHAT ARE THE MOLECULES IN PLASTICS CALLED?

Answer 21 of 50

- POLYMERS

Question 22 of 50

- MOLECULE MADE FROM MANY SMALL MOLECULES CALLED MONOMERS LINKED IN A LONG CHAIN DURING POLYMERISATION

Answer 22 of 50

- MONOMERS

Question 23 of 50

- How do engines make nitrogen oxides?

Answer 23 of 50

- High temperatures react oxygen and nitrogen from the air together

Question 24 of 50

- What is the formula for methane?

Answer 24 of 50

- CH₄

Question 25 of 50

- What is the formula for propene?

Answer 25 of 50

- C_3H_6

Question 26 of 50

- What is made when you add bromine to an alkene?

Answer 26 of 50

- Dibromo compound

Question 27 of 50

- State 3 ways that polymers can be disposed of

Answer 27 of 50

- Burnt, landfill, recycled

Question 28 of 50

- What new types of polymers are scientists developing to reduce disposal problems?

Answer 28 of 50

- Polymers that dissolve, biodegradable polymers

Question 29 of 50

- What is hydrocarbon?

Answer 29 of 50

- A compound that only contains hydrogen and carbon

Question 30 of 50

- What is a monomer?

Answer 30 of 50

- They are the repeat units that are joined together to make a polymer, they are alkenes which contain double bonds.

Question 31 of 50

- What is a polymer?

Answer 31 of 50

- A long chain of monomers chemically bonded to each other.

Question 32 of 50

- How do you make a polymer?

Answer 32 of 50

- High pressure and catalyst breaks an alkene's double bond, lots of these join together to make a long molecule (a polymer)

Question 33 of 50

- What colour is bromine?

Answer 33 of 50

- Brown

Question 34 of 50

- What is an alkane?

Answer 34 of 50

- A hydrocarbon with single bonds

Question 35 of 50

- **What is an alkene?**

Answer 35 of 50

- A hydrocarbon with at least one double bond.

Question 36 of 50

- State 4 properties of Goretex.

Answer 36 of 50

- Waterproof,
- windproof,
- breathable,
- **weak,**
- lightweight

Question 37 of 50

- What is a saturated compound?

Answer 37 of 50

- A compound that only had single bonds (no double bonds).

Question 38 of 50

- Explain how Goretex is breathable, yet waterproof.

Answer 38 of 50

- Has small holes (from expanded PTFE), that water droplets cannot pass through but water vapour can.

Question 39 of 50

- What type of bonds hold hydrocarbon molecules together?

Answer 39 of 50

- Intermolecular bonds

Question 40 of 50

- What type of bonds hold hydrocarbon atoms together?

Answer 40 of 50

- Covalent bonds.

Question 41 of 50

- What is the test for an alkane and an alkene?

Answer 41

Question 42 of 50

- What is the general formula for a alkane and for an alkene?

Answer 42 of 50

- Alkane = C_nH_{2n+2}
- Alkene = C_nH_{2n}

Question 43 of 50

- State 3 reasons why we cook food

Answer 43 of 50

- Improve taste, texture, easier to digest or kills bacteria.

Question 44 of 50

- State 2 reasons why cooking is a chemical reaction

Answer 44 of 50

- Change in colour, energy changes, non-reversible reaction

Question 45 of 50

- Name 4 different food additives and explain what they each do

Answer 45 of 50

- Emulsifiers- stops a mixture from separating,
- Antioxidants- stops food reacting with oxygen,
- Flavour enhancers- to enhance flavour,
- Colourants- to give an improved colour

Question46 of 50

- Explain how baking powder makes cakes rise

Answer 46 of 50

- It breaks down with heat (thermal decomposition) and makes carbon dioxide

Question 47 of 50

- What is nylon used for? State 3 properties of nylon?

Answer 47 of 50

- Clothes,
- Tough,
- light,
- flexible,
- **non-breathable**

Question 48 of 50

- What does biodegradable mean?

Answer 48 of 50

- It can be broken down by bacteria

Question 49 of 50

- How do you make Goretex? Why is this?

Answer 49 of 50

- Expand PTFE (by putting air in it) and joining it to nylon. PTFE is too weak on its own

Question 50 of 50

- What is additional polymerisation?
- Give 2 examples

Answer 50 of 50

- Where many alkene monomers react together to give a polymer under high pressure with a catalyst
- Poly(ethene), poly(propene), poly(butene).