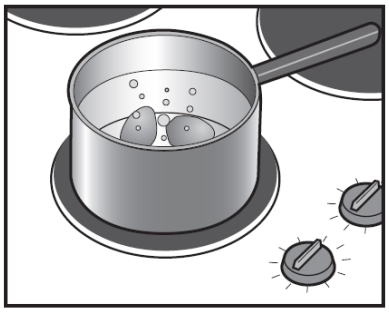
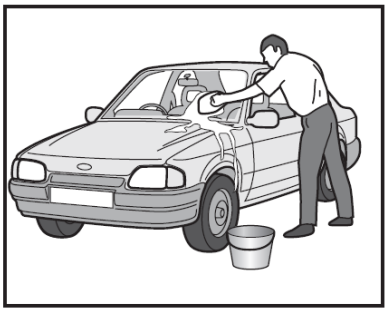
Air and Water – 2021 IGCSE 0620

1. Nov/2021/Paper_11,12&13/No.28

The diagrams show some uses of water in the home.



1



2

3

For which uses is it important for the water to have been treated?

A 1 only **B** 2 only **C** 3 only **D** 1, 2 and 3

2. Nov/2021/Paper_11/No.29

Which air pollutants can cause damage to buildings made of limestone?

1 carbon monoxide

2 lead compounds

3 oxides of nitrogen

4 sulfur dioxide

A 1 and 2 **B** 1 and 4 **C** 2 and 3 **D** 3 and 4

3. Nov/2021/Paper_12/No.29

Four different test-tubes containing water and an iron nail are left for two weeks.

Which nail showed the least amount of rusting?

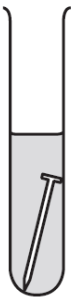
A

tap water

B

boiled tap water

C



boiled tap water

D

tap water

4. Nov/2021/Paper_12/No.30

Which process does **not** produce a greenhouse gas?

A acid rain on limestone buildings

B combustion of wood

C digestion in cows

D zinc reacting with sulfuric acid

5. Nov/2021/Paper_13/No.30

Which reactions produce carbon dioxide?

1 heating a carbonate

2 reacting a carbonate with dilute acid

3 burning methane

4 cracking a hydrocarbon

A 1, 2 and 3 **B** 1, 2 and 4 **C** 2, 3 and 4 **D** 3 and 4 only

6. Nov/2021/Paper_21/No.29

Covering iron with zinc prevents the iron from rusting even when the zinc is scratched.

Covering iron with tin prevents the iron from rusting, but when the tin is scratched the iron underneath starts to rust.

Which statement is correct?

A Both tin and zinc prevent iron from rusting by sacrificial protection.

B Both tin and zinc prevent iron from rusting by stopping water and carbon dioxide reaching the iron.

C Tin is more reactive than iron and prevents iron from rusting until it is scratched.

D Zinc loses electrons more easily than iron and prevents iron from rusting by corroding first.

7. Nov/2021/Paper_21,22&23/No.27

Aluminium objects do not need protection from corrosion.

Iron objects must be protected from corrosion.

Which statement explains why aluminium resists corrosion?

A Aluminium does not form ions easily.

B Aluminium does not react with water or air.

C Aluminium has a protective oxide layer.

D Aluminium is below iron in the reactivity series.

8. Nov/2021/Paper_22/No.28

Which statements explain why zinc is used to protect iron from rusting?

1 Zinc is more reactive than iron.

2 Zinc is less reactive than iron.

3 Zinc can form alloys with iron.

4 Zinc acts as a sacrificial metal.

A 1 and 3 **B** 1 and 4 **C** 2 and 3 **D** 2 and 4

9. Nov/2021/Paper_22/No.30

Which process does **not** produce a greenhouse gas?

A acid rain on limestone buildings

B combustion of wood

C digestion in cows

D zinc reacting with sulfuric acid

10. Nov/2021/Paper_23/No.29

Ships are made of steel, an alloy of iron.

Blocks of magnesium are attached to the underside of ships to prevent rusting.

Which statement explains how the magnesium prevents rusting?

A Magnesium oxidises instead of iron.

B Magnesium stops air and water getting to the iron.

C The magnesium forms an alloy with iron which does not corrode.

D The magnesium reacts with rust as soon as it is formed.