SINGLE DISPLACEMENT REACTION

Student …… Class …… Date ……

MATERIALS

An iron nail, copper sulfate, a beaker, water, a hot plate.

PROCEDURE

Pour water into the beaker, for half of its capacity, and add half teaspoon of copper sulfate.

Heat up the solution using the hot plate: this is the best way to dissolve the copper sulfate dust in water.

Put the nail into the beaker.

We need a couple of days to observe what happened.

OBSERVATIONS (after a couple of days)

Tick the correct answers (more than one is correct):

☐ the solution has changed its colour turning into white.

☐ the solution hasn't changed its colour.

☐ the solution has changed its colour turning into yellow/brown.

☐ there is a brown coating on the iron nail dipped in the solution.

Draw a picture about this first step.

CONCLUSIONS

From the surface of the nail the iron goes into the solution and the copper, which is in the solution, replaces the iron on the nail surface, forming a thin layer.

$$Fe + CuSO_4 \longrightarrow FeSO_4 + Cu$$

iron + copper sulfate ⟶ iron sulfate + copper.

Draw a picture about this final step.