From *Education in Chemistry*
rsc.li/35s2fSG
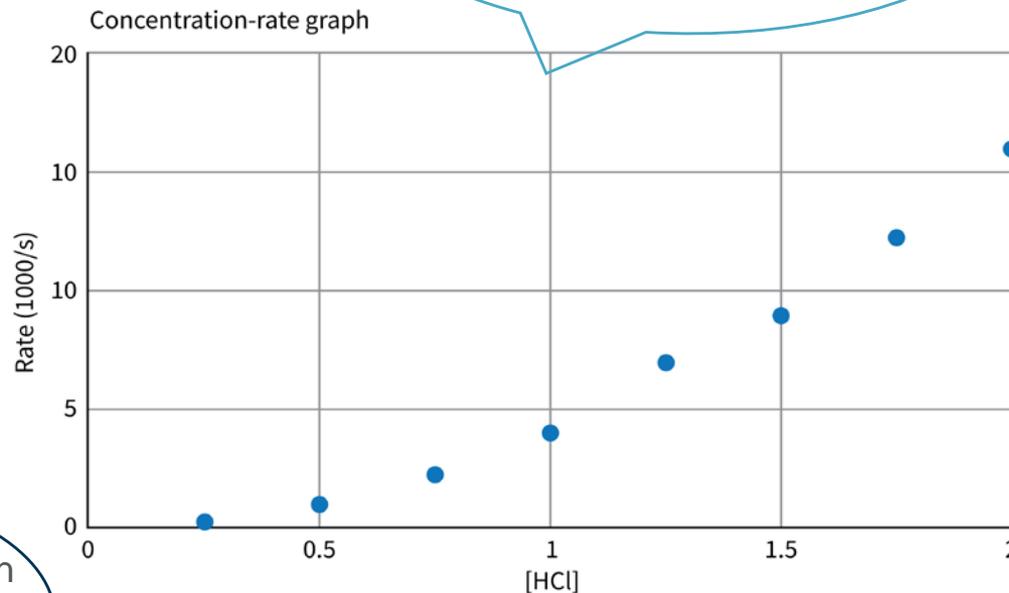
ROYAL SOCIETY OF **CHEMISTRY**

Data thinking concept cartoon

eic

Data thinking

After an experiment determining how the concentration of hydrochloric acid affects the rate of reaction with magnesium, students made the following points about the data. How might you respond to their ideas?

The points are not in a straight line, because there is no linear relationship between concentration and rate.

The line of best fit shows what the results should have been under perfect conditions.

Concentration-rate graph

Rate (1000/s)

[HCl]

Some points are not on the line, because the magnesium was impure.

The graph should go through the origin, because when there is no HCl there is no reaction.

ROYAL SOCIETY OF CHEMISTRY