5) An acid and a metal produce a salt and hydrogen gas

hydrochloric acid + calcium produce calcium chloride + hydrogen gas

This needs balancing

Try these.

a. Nitric acid and magnesium hydroxide produce magnesium nitrate and water.

$$HNO_3 + Mg(OH)_2 \rightarrow Mg(NO_3)_2 + H_2O$$

 $2 + NO_3 + Mg(OH)_2 \rightarrow Mg(NO_3)_2 + H_2O$

c. hydrochloric acid and calcium carbonate produce <u>Calcium chloride + water +</u>

Carbon dioxide

$$HCL + CaCO_3 \rightarrow CaCl_2 + H_2O + CO_2$$

2 $HCL + CaCO_3 \rightarrow CaCl_2 + H_2O + CO_2$

d. phosphoric acid and sodium hydrogen carbonate produce sodium phosphate t water + carbon dioxide

e. Nitric acid and calcium produce <u>Calcium nitrate</u> + hydrogan gas