REACTIONS WITH WATER

metal	observations
potassium	◦ reacts violently with cold water ◦ hydrogen gas catches fire and explodes
sodium	◦ reacts violently with cold water ◦ hydrogen gas may catch fire
calcium	◦ reacts moderately with cold water
magnesium	◦ reacts slowly with cold water ◦ hot magnesium reacts violently with steam and burns white a white glow
aluminium	◦ reacts readily with steam ◦ reaction slows down due to the formation of a protective oxide layer
zinc	◦ hot zinc reacts readily with steam ◦ zinc oxide produced is yellow when hot and white when cold
iron	◦ hot iron reacts slowly with steam
lead	◦ no reaction
copper	◦ no reaction
silver	◦ no reaction
gold	◦ no reaction

RUSTING OF IRON

PREVENTIVE MEASURES

- painting or covering with a layer of oil
  - protects iron from being exposed to oxygen and water
- sacrificial protection
  - more reactive metal used as sacrificial metal to corrode in place of original metal
- plating