

3.

The table shows the melting and boiling points for the halogens.

Element	Melting Point (°C)	Boiling Point (°C)	State at Room Temperature
fluorine	-220	-188	gas
chlorine	-101		gas
bromine	-7	59	
iodine	114	184	solid
astatine	302	337	solid

Predict the state of bromine at room temperature. _____

Explain your prediction.

4.

The table shows what happens when halogens react with iron wool.

Element	Observations
fluorine	It reacts instantly, setting the iron wool on fire.
chlorine	It reacts very quickly with a bright glow and a flame.
bromine	The iron must be heated and the bromine warmed to start the reaction. There is a bright glow.
iodine	Both substances must be heated strongly to start the reaction which then proceeds slowly. There is a faint glow.

Compare the reactivity of the Group 7 halogens with the alkali metals in Group 1.
