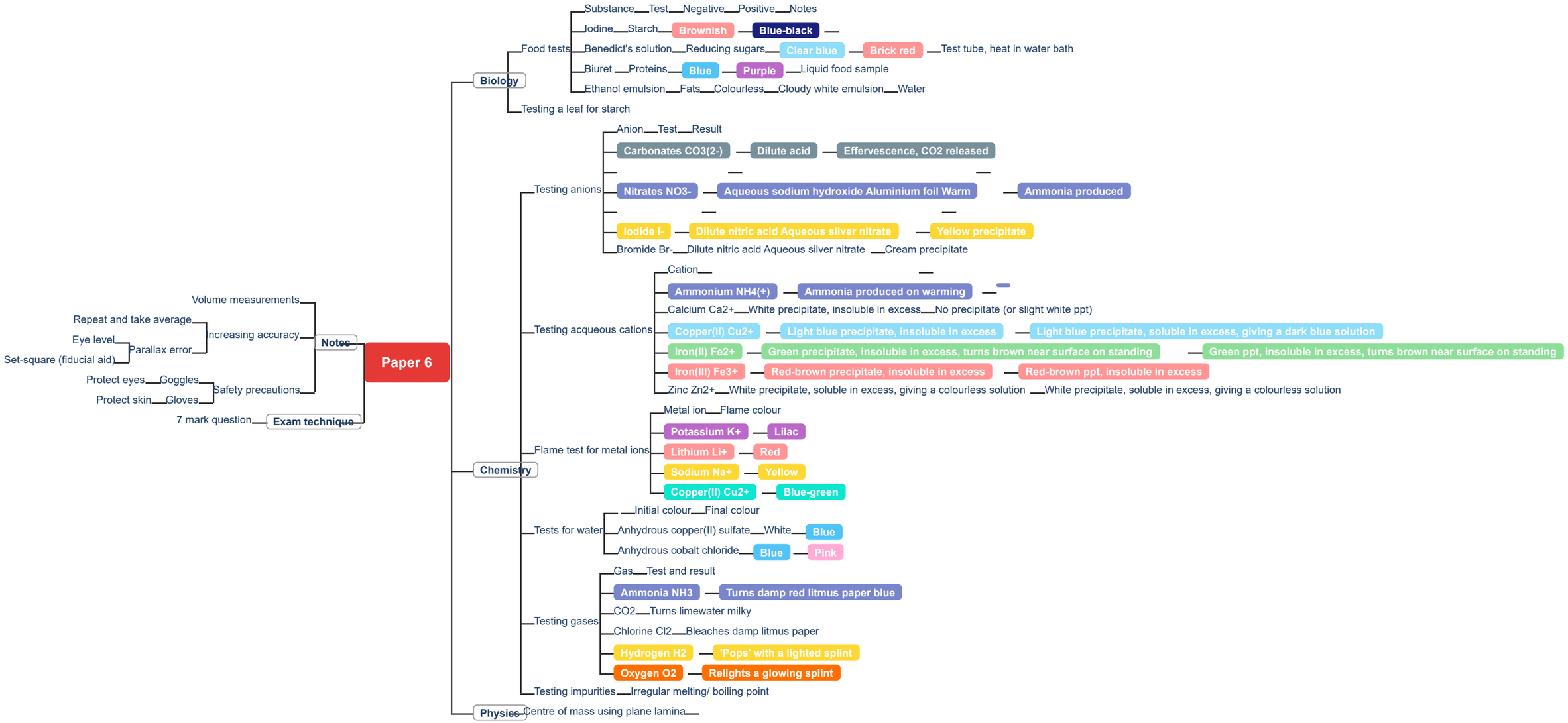

Paper 6
Notes
Volume measurements
Repeat and take average
Increasing accuracy
Eye level
Parallax error
Set-square (fiducial aid)
Protect eyes
Goggles
Safety precautions
Protect skin
Gloves
Exam technique
7 mark question
Biology
Food tests
Substance
Test
Negative
Positive
Notes
Iodine
Starch
Brownish
Blue-black
Benedict's solution
Reducing sugars
Clear blue
Brick red
Test tube, heat in water bath
Biuret
Proteins
Blue
Purple
Liquid food sample
Ethanol emulsion
Fats
Colourless
Cloudy white emulsion
Water
Testing a leaf for starch
Chemistry
Testing anions
Anion
Test
Result
Carbonates CO3(2-)
Dilute acid
Effervescence, CO2 released
Nitrates NO3-
Aqueous sodium hydroxide Aluminium foil Warm
Ammonia produced
Iodide I-
Dilute nitric acid Aqueous silver nitrate
Yellow precipitate
Bromide Br-
Dilute nitric acid Aqueous silver nitrate
Cream precipitate
Testing acqueous cations
Cation
Ammonium NH4(+)
Ammonia produced on warming
Calcium Ca2+
White precipitate, insoluble in excess
No precipitate (or slight white ppt)
Copper(II) Cu2+
Light blue precipitate, insoluble in excess
Light blue precipitate, soluble in excess, giving a dark blue solution
Iron(II) Fe2+
Green precipitate, insoluble in excess, turns brown near surface on standing
Green ppt, insoluble in excess, turns brown near surface on standing
Iron(III) Fe3+
Red-brown precipitate, insoluble in excess
Red-brown ppt, insoluble in excess
Zinc Zn2+
White precipitate, soluble in excess, giving a colourless solution
White precipitate, soluble in excess, giving a colourless solution
Flame test for metal ions
Metal ion
Flame colour
Potassium K+
Lilac
Lithium Li+
Red
Sodium Na+
Yellow
Copper(II) Cu2+
Blue-green
Tests for water
Initial colour
Final colour
Anhydrous copper(II) sulfate
White
Blue
Anhydrous cobalt chloride
Blue
Pink
Testing gases
Gas
Test and result
Ammonia NH3
Turns damp red litmus paper blue
CO2
Turns limewater milky
Chlorine Cl2
Bleaches damp litmus paper
Hydrogen H2
'Pops' with a lighted splint
Oxygen O2
Relights a glowing splint
Testing impurities
Irregular melting/ boiling point
Physics
Centre of mass using plane lamina