

List of Apparatus and Chemicals for 2025 Y6 Prelim Practical

Qn No.	Label	Per candidate	Identity	Notes
1	FA 1	250 cm ³	2.0 mol dm ⁻³ NaOH	Dissolve 80.0 g of NaOH in each dm ³ of solution. <i>Care: the process of solution is exothermic and any concentrated solution is very corrosive.</i>
	FA 2	250 cm ³	1.0 mol dm ⁻³ sulfuric acid	Cautiously pour 55 cm ³ of concentrated (98% w/w) sulfuric acid into 500 cm ³ of deionised water with continuous stirring. Make the solution up to 1dm ³ with deionised water. <i>Care: concentrated H₂SO₄ is very corrosive</i>
2	FA 3	100 cm ³	Na ₂ CO ₃ + NaOH	Dissolve 6.9g Na ₂ CO ₃ in 1 dm ³ of deionised water. Concentration of Na ₂ CO ₃ = 0.0865 mol dm ⁻³ Dissolve 2.2 g of NaOH in 1 dm ³ of solution. Concentration of NaOH = 0.0550 mol dm ⁻³
	FA 4	150 cm ³	HCl	Dilute 75 cm ³ of 2.0 mol dm ⁻³ HCl to 1 dm ³ with deionised water. Concentration = 0.150 mol dm ⁻³
	Methyl orange	-	Methyl orange	-
	Thymol Blue	-	Thymol Blue	-
3	FA 6	15 cm ³	0.100 mol dm ⁻³ Fe(NO ₃) ₃ •9H ₂ O + 0.200 mol dm ⁻³ Zn(NO ₃) ₂ •6H ₂ O	Dissolve 40.4 g of hydrated iron(III) nitrate, Fe(NO ₃) ₃ •9H ₂ O in each dm ³ of solution. Dissolve 59.5 g of hydrated zinc nitrate, Zn(NO ₃) ₂ •6H ₂ O in each dm ³ of solution.
	KI	5 cm ³	0.100 mol dm ⁻³ potassium iodide, KI	Dissolve 16.6 g KI in deionised water and make up to 1 dm ³ with deionised water.
	Starch Solution	5 cm ³	Starch Solution	Add 20 g slowly to 500 cm ³ of boiling deionised water with stirring. Stir until a clear solution is obtained and make up to 1 dm ³ using hot deionised water. Cool the solution before dispensing.
	Zn granule	1	Zn Granule	

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- (1) 1 × 50 cm³ burette
- (2) 1 × 25 cm³ pipette
- (3) 1 × 250 cm³ glass beaker
- (4) 2 × 250 cm³ conical flask
- (5) 2 × 100 cm³ measuring cylinder
- (6) 1 × glass rod
- (7) 1 × thermometer (0.2 °C division)
- (8) 3 × Styrofoam cup
- (9) 2 × filter funnel
- (10) 1 × pipette filler
- (11) 1 × retort stand and clamp
- (12) 1 × white tile
- (13) 1 × deionised water bottle
- (14) 4 × teat pipette
- (15) 4 × test tube
- (16) 1 × test tube rack
- (17) 1 × test tube holder
- (18) 1 × lighter
- (19) 1 × delivery tube (fitted to test tube)
- (20) 1 × spatula
- (21) 1 × brush set (for cleaning test-tubes and boiling tubes)
- (22) Wooden splint
- (23) Filter paper
- (24) Red and blue litmus paper
- (25) UI paper and colour chart
- (26) 1 × safety goggles
- (27) Starch solution
- (28) Zn granule
- (29) Thymol Blue indicator
- (30) Methyl Orange indicator

Chemicals:

FA 1, FA 2, FA 3, FA 4, FA 6