

Technician Order: Yeast Labs

Oct 29, 2026 · @Adam

Two AP Biology practicals, 60 minutes each, for 6 groups of 3–4 students. Totals include about 25% spare.

Booking details

	Lab 1: Catalase and H ₂ O ₂	Lab 2: Sugars and dough rise
Teacher	Mr Bradford	Mr Bradford
Class		
Room		
Date		
Period / time		
Number of groups	6	6
Number of students		

Lab 1: Catalase and H₂O₂ balloons

Equipment

Item	Per group	Class total (6 groups + spare)
Conical flask, 250 mL	5	32
Balloons, round latex, 9–12 inch	5	40
Small plastic funnel (fits balloon neck)	1	7
Measuring cylinder, 25 mL	1	7
String, approx. 50 cm lengths	5	40
30 cm ruler	1	7

Item	Per group	Class total (6 groups + spare)
Stopwatch or timer	1	7
Spatula	1	7
Paper towels	1 roll	2 rolls
Safety goggles	1 per student	1 per student

Consumables

Item	Per group	Class total
Dried active yeast	5 g (5 × 1 g)	40 g
Hydrogen peroxide, 3% (stock)	—	500 mL

Solutions to make up (150 mL of each)

Label	3% H ₂ O ₂ (mL)	Distilled water (mL)
0%	0	150
0.5%	25	125
1%	50	100
2%	100	50
3%	150	0

Total stock used: 325 mL. Make up on the day or the day before, and store in labelled, capped bottles away from light.

Prep before the lesson

- ☐ Make up and label the five H₂O₂ solutions
- ☐ Pre-weigh 1 g yeast portions into small cups if possible (30 portions)
- ☐ Set out one tray per group

Lab 2: Sugars and dough rise

Equipment

Item	Per group	Class total (6 groups + spare)
Measuring cylinder, 10 mL (or boiling tubes + rack)	5	32
Beaker, 50 mL	5	32
Beaker, 100 mL (for yeast mix)	1	7
Measuring cylinder, 100 mL	1	7
Spatulas	5	32
Glass stirring rod	1	7
Permanent marker	1	7
30 cm ruler	1	7
Stopwatch or timer	1	7
Thermometer	1	7
Water bath set to 35 °C, room for 30 tubes	shared	1–2
Kettle or warm water supply (35–40 °C)	shared	1

Consumables

Item	Per group	Class total
Dried active yeast	4 g	30 g
Plain flour	approx. 100 g	1 kg
Glucose powder	1 g	10 g
Sucrose (table sugar)	1 g	10 g
Lactose powder	1 g	10 g

Item	Per group	Class total
Soluble starch	1 g	10 g
Small labelled weighing cups	4	30

Prep before the lesson

- ☐ Pre-weigh 1 g of each substrate into cups labelled G, S, L, St (6 sets)
- ☐ Pre-weigh 4 g yeast per group (6 portions)
- ☐ Switch on the water bath at least 30 min before the lesson and check it reads 35 °C
- ☐ Provide warm water at 35–40 °C at the start of the lesson

The 10 mL cylinders are easier to read than boiling tubes. If you only have boiling tubes, please supply racks and rulers instead.

Safety and disposal

- **Hydrogen peroxide (3% and below):** irritant to eyes. Goggles on throughout Lab 1. Eye-wash station must be accessible.
- **Latex balloons:** check for latex allergies in the class. Supply latex-free balloons if needed.
- **Foam:** flasks may foam over at 3%. Use 250 mL flasks with only 20 mL of solution, and stand them on trays.
- **Water bath:** 35 °C is safe to touch. Check the thermostat before the lesson.
- **Food materials:** flour, sugars and yeast are not to be eaten in the lab.
- **Disposal:** used H₂O₂ and yeast mixtures can go down the sink with plenty of water. Dough goes in the general waste, not the sink (it blocks drains). Balloons go in the general waste.