

AMBER DETOUR

Your practical was sloppy. Clear B1 and B2, then carry on with your pack.

🔒 B1 BEST PRACTICE

SLOPPY BENCH

Your teacher's notes from another team's bench. Some of it is good practice. **4** things are sloppy. Find them.

- 1 The filter paper went into the funnel flat instead of folded into a cone.
- 2 The funnel sat in the neck of a conical flask.
- 3 The mixture was poured slowly down a glass rod.
- 4 Bags and coats were left on the bench beside the glassware.
- 5 The mixture was poured in until it spilled over the top of the filter paper.
- 6 The sand was rinsed with a little distilled water.
- 7 Goggles stayed on from start to finish.
- 8 Spilt water was left on the bench until the end.

Door code = the numbers of the sloppy notes, smallest first.

DETOUR
CODE

The perfect filtration, jumbled. Put the steps in the right order.

1 Stir the mixture, then pour it slowly down a glass rod into the cone.

5 Put on goggles and lay out all the equipment.

3 Open the paper on a paper towel and leave the sand to dry.

2 Fold the filter paper into a cone and put it in the funnel, sitting in a conical flask.

7 Rinse the sand in the paper with a little distilled water.

8 Wet the paper with a little distilled water so it sticks to the funnel.

ORDER → → → → →

Door code = the step numbers in the right order.

DETOUR
CODE

CHEMISTRY LOCKDOWN

SET A

DETOUR DOORS

Only for teams sent here by the terminal.

RED DETOUR: SAFETY LOCKDOWN

Your practical was unsafe or a mess. Clear S1, S2 and S3, then carry on with your pack.

S1 LAB SAFETY

HAZARD SYMBOLS

You will meet these on bottles in the prep room. Match each symbol to what it means. Two meanings are spare.



SYMBOL A



SYMBOL B



SYMBOL C



SYMBOL D

1 Oxidising: makes other things burn more fiercely.

2 Harmful or irritant: can irritate skin, eyes or lungs.

3 Corrosive: destroys skin and metal.

4 Flammable: catches fire easily.

5 Explosive: can blow up.

6 Toxic: can kill, even in small amounts.

Door code = the meaning numbers for symbols A, B, C and D.

DETOUR
CODE

What is the **right** thing to do? Choose one option for each.

1. Acid splashes onto your hand.

☐

1 Wipe it on your blazer and carry on.

2 Rinse it under cold running water for several minutes and tell your teacher.

3 Leave it and wash your hands at break.

2. Your Bunsen is lit but you are not using it right now.

☐

1 Leave it on the roaring blue flame.

2 Put an upturned beaker over it.

3 Turn it to the yellow safety flame so it can be seen.

3. A beaker smashes on the floor.

☐

1 Stay back, tell your teacher, and keep others away while it is swept up.

2 Pick the pieces up quickly with your hands.

3 Kick the pieces under the bench.

4. You are heating a liquid in a test tube.

☐

1 Point the open end at your partner so they can watch.

2 Point the open end away from everyone.

3 Heat the very bottom only, as fast as possible.

Door code = your choices for 1, 2, 3 and 4.

DETOUR
CODE

A risk assessment for making salt crystals. Match each **hazard** to the **precaution** that controls it. Two precautions are useless.

A. The evaporating basin is very hot after heating.

☐

B. The salt solution starts to spit as it gets concentrated.

☐

C. The tripod and gauze stay hot long after the flame is off.

☐

D. You need to warm some ethanol, which is flammable.

☐

Precautions

1 Warm it in a water bath with no naked flame nearby.

2 Wear goggles, and stop heating before the basin is dry.

3 Add more salt so the solution is safer.

4 Open a window to let the heat out.

5 Move it with tongs, and let it cool before touching.

6 Leave them where they are until they have cooled.

Door code = the precaution numbers for hazards A, B, C and D.

DETOUR
CODE