

## NE208 Managing the practical classroom

### Example classroom layouts

#### Grouped large benches perpendicular to teaching wall



A large teaching laboratory which has four benches, each seating eight students in groups of four. Each bench has two power points and a gas tap. There are three water points. There is a movable whiteboard and a fixed projector/smart board behind a demonstration bench.

*Teacher opinion:* This lab has a lot of advantages as it's massive. It's big. There's lots of space. The tables are laid out, four distinct tables that don't move. It's great for practical work in that respect.

There's a lot of space for students to set up. It's very, very safe, especially when you are heating solutions, etc. There's no risk of things really falling off. It's got plenty of equipment in it, plenty of gas taps, plenty of plug sockets. We've got computers.

It's a really well kitted out lab. In that way, it's got many benefits. However, the biggest disadvantage it has, and probably the only disadvantage, is the way the students face. The students not facing the board or facing you makes managing behaviour sometimes quite difficult.

### **A long laboratory with staggered benches**





Students are seated in pairs, facing the front of the room. There are four islands with power, gas and water down the middle of the room and additional services to one side. The whiteboard is on one side wall, the projector/smart board is at the front of the room.

*Teacher opinion:* This is one of our longer labs. And once again, it's set out in horizontal rows. This makes it ideal for students to focus on the teacher. They're a clear focal point from the room, and also makes group work quite simple, because you have clearly defined groups.

However, the set out of the lab in relation to practical work sometimes makes things difficult. The gas taps are set up at about elbow height and facing out of the pedestals, which means that sometimes you can catch yourselves on them. The plug sockets and the taps are in difficult positions into relation to where the students work.

Also sometimes, students complain that they find it difficult to see the front of the board, because it's quite long, and to hear the teacher. Because it is a narrow classroom, that means that moving around the classroom can sometimes be quite difficult, as well.



## Standard classroom desks



This is a large classroom with ten movable standard classroom desks arranged in two horse-shoe shapes in the middle of the room. Most students face the front of the class. At the front there is the main teaching wall with whiteboard and projector/smartboard and demonstration bench. To one side there are fixed practical benches with power and gas. At the back, there are additional fixed practical benches with water, power and gas.

*Teacher opinion:* That lab has a lot of benefits. It's big and the desks are moveable. So that means that you can move those desks however you want to as

a teacher. So we've had three different teachers teach in that lab. All had completely different layouts whilst I've been here.

However, for practical work, it's very difficult. You've only got two benches where practical work can occur, so you could have 15 students crowded around one bench, which is really meant for about eight students. That means that safe practical work can sometimes be difficult, so behaviour management is essential.

### **Service pods and moveable benches**



A good sized room with eight podiums providing electricity and gas. Movable practical benches which seat two students are arranged with eight benches facing

the front adjacent to service pods and three benches each side of the room facing towards the middle. Only two podiums have water. The teaching wall has a projector/smartboard and large whiteboard.

*Teacher opinion:* Some of the benefits of this room, the layout is movable, so teachers can have it how they like it. We've had different teachers lay it out in different ways. The focal point is very clear at the front for the students, and you do have your big very, very large whiteboard at the front, which makes teaching ideal in that lab.

However, in terms of practical work, there's a lot of challenges. There's only one set of plug sockets in each island, and that's where the gas taps are as well with no water supply. It's not an ideal room for a chemistry teacher.

### **Large laboratory with service pods and movable benches**







This is the largest laboratory in our examples. Roughly double the size of the smallest room. Moveable practical benches are arranged in three rows facing the front. There are five podiums providing power and gas. The front and back rows have immediate access to services. At the back of the room additional fixed benches provide water, power and gas. The teaching wall has a small whiteboard and projector/smartboard behind a demonstration bench. A fume cupboard is available.

*Teacher opinion:* I think this is one of the better-suited labs in the school for teaching and practical work. There's a lot of benefits for teaching in this lab. It's large, it's forward-facing. Both boards are at the front of the room, and there's a large amount space for the teacher to roam around amongst the students in the middle of the classroom.

There are clearly defined gas tap points, and the desks are lengthwise, accommodating about 10 students per desk, which means that you've got easy paired practical work so students can easily work in groups, as well.

However, you do have that movable set of desks within the middle of that lab, which don't have access to any gas taps or plugs. And that makes practical work with that lab quite difficult sometimes.

## Fixed bench layout



Six long fixed benches are arranged three on each half of the room, facing the front. Benches seat six students in a row. Each bench has a water supply. Each student has power and gas supplies. The teaching wall has a whiteboard and projector/smartboard.

*Teacher opinion:* This lab is one of our newer labs, and therefore, probably one of the most appropriately designed for teaching at the minute. You have a selection of forward-facing desks. Each desk has their own sink and gas tap point and plug socket, which means that when students are doing practical work, they have



plenty of access to resources. This minimises disruption and movement around the room.

For behaviour management, it's brilliant. You have students facing you. Once again, they clearly know where they need to focus, as all boards are at the front, and there's plenty of space for teachers to roam around the classroom.