Guide to: Microscopes



We offer a wide range of different microscopes at SLS Select Education, but by far the most popular for classroom use are compound microscopes. Here's what we think you need to know when before buying your next microscope:

Optical Quality and Magnification

More expensive microscopes generally have higher quality lenses – meaning the images you see are clearer. **Think about who's going to be using this microscope**, and the level of detail they need to see. KS3 and KS4 generally only need up to 40x magnification, but KS5 could need 100x oil immersion to see more intricate cell structures.

Condenser confusion?

Different condensers have different effects on image clarity, but most people don't know their Abbe from their Achromatic...

- **Abbe Condenser** – these are most effective at lower magnifications and can be easily adjusted, ideal for KS3
- **Achromatic or Aplanatic Condenser** – provide better light focussing and reduce optical aberrations (aka irregularities) at higher magnifications
- **Phase Contrast** – essential for observing transparent structures, or when working with unstained specimens, like live cells (for example – yeast)

What else?

It's all about who's using the microscope, where they're using it and why:

- **Battery powered and rechargeable microscopes** are great for field use – they can also be used for dry practicals, if your department ever has to use a regular classroom instead of a lab
- **LED lighting** gives the best, brightest and safest method of illumination. LED bulbs have a long life and don't get hot like filament bulbs – perfect for use by students
- **Mechanical stages** – they're not always necessary, but KS4 and KS5 students really ought to be familiar with these before heading to university where this is the standard

SLS Select education

Contact your local Territory Sales Manager for more information. **Find yours at www.science2education.co.uk/team**





Best for budgets:
ZMS001 – SATZ Biological Microscope

Best 'all rounder':
MIC5914 – Motic 1801 LED Cordless Monocular Microscope





Best for KS5, and teacher demonstrations:
MIC8016 – Motic Stellar 1-T Trinocular Microscope