

# OCR (A) Biology A-level

## Module 1: Development of practical skills in Biology

### **PAG 9: Qualitative Testing**

Please note: You only need to do one from each PAG, and you don't need to do the PAGs listed here, as long as you show the same skills that these are testing (see 5f of the specification for more information). However, you need to at least be able to design your own method for most of these experiments in the exam.



| Test            | Molecule testing for | Method   | Result (if positive)   |
|-----------------|----------------------|--|--|
| Biuret test     | Protein              | 1. Add sodium hydroxide solution.<br>2. Add copper (II) sulphate solution.   | Colour change from blue to purple.   |
| Iodine test     | Starch               | 1. Add iodine in potassium iodide solution.  | Colour change from brown-orange to blue-black.   |
| Emulsion        | Lipids               | 1. Add ethanol.<br>2. Pour solution into water.  | Solution goes a milky colour.  |
| Benedict's Test | Reducing Sugars      | 1. Add Benedict's reagent to a sample and heat in a water bath that's brought to a boil.   | Sample goes from blue (to green to yellow to orange) to brick red precipitate, depending on the concentration.       |
| Benedict's Test | Non-Reducing Sugars  | 1. Add dilute HCl.<br>2. Put in a water bath brought to a boil.<br>3. Neutralise with sodium hydrogen carbonate.<br>4. Do Benedict's Test for reducing sugars. | Sample goes from blue (to green to yellow to orange) to brick red precipitate, depending on the concentration.       |
| Test Strips     | Glucose              | 1. Dip test strip in solution.   | Colour change will occur if glucose is present. Compare to chart of known colour changes to check for concentration. |

