

## Examination of artery and vein using a light microscope and production of labelled scientific drawings of these from observation

### Introduction

This practical requires you to observe and draw a prepared slide of an artery, and of a vein.

### Apparatus

Light microscope  
Slide of a Transverse Section (T.S.) of an artery  
Slide of a Transverse Section (T.S.) of a vein

### Method

1. Use a light microscope to examine a T.S artery using the  $\times 10$  objective lens.
2. Use the  $\times 40$  objective lens to identify the tough outer layer and the muscular and elastic fibres.
3. Draw a diagram to show the distribution of tissues in the correct proportion.
4. Identify and label: tough outer layer; muscular and elastic fibres; lumen.
5. Repeat steps 1 - 4 using a T.S. vein.

### Analysis

1. Compare the structure of the artery and vein and relate this to their function.
2. Calculate the total magnification of the image seen under the microscope by multiplying the power of the objective lens by the power of the eyepiece.