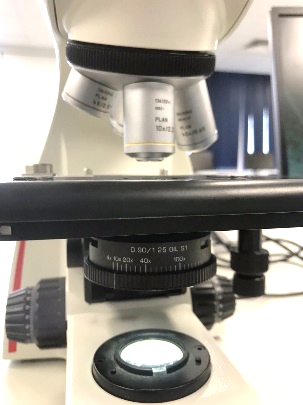
**EASY GUIDE TO USING A MICROSCOPE**

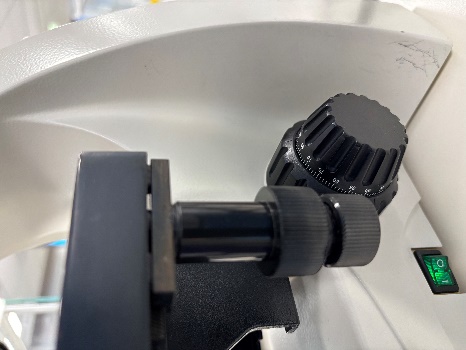
1. ****Turn microscope on.
2. **Turn objective to 10x.**

**Make sure condenser (below the stage) is set to 10x (see arrow on image).**

1. Place slide in the slideholder (make sure it is flat and secure in the holder).
2. For 10x objective, turn the BIG wheel and move the slide so that it is about 1 cm from the objective (see image below).

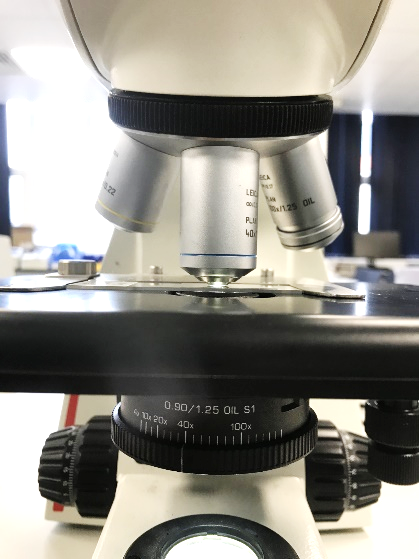
**THIS IS THE ONLY TIME YOU NEED TO USE THE COARSE FOCUS (BIG WHEEL).**

****



1. Look down the eyepiece – if you see a blurred image, use the **SMALL FINE FOCUS WHEEL ONLY** to adjust focus (**DON’T TOUCH THE BIG WHEEL**).

If after a couple turns in one direction it doesn’t come into focus, turn the wheel in the opposite direction. Look down eyepiece as you do this.

1. Once in focus, move to 40x objective.
2. **Turn objective to 40x.**

**Make sure condenser is set to 40x (see arrow on image).**

1. Look down the eyepiece. If the image is blurred – **TURN SMALL FINE FOCUS WHEEL ONLY.**

If after a couple turns in one direction it doesn’t come into focus, turn the wheel in the opposite direction. Look down eyepiece as you do this.

1. Once in focus, move to 100x objective (OIL IMMERSION)**.**
2. Turn objective so you have 40x objective on left and 100x objective on right (see image).

**YOU WILL SEE A CIRCLE OF LIGHT ON THE SLIDE (SEE ARROW ON IMAGE) – DROP OIL DIRECTLY ONTO THE CIRCLE OF LIGHT ON THE SLIDE.**

The drop of oil should be enough to fill the circle of light.

1. **Turn objective to 100x**

**The objective should now be touching the oil on the slide**

**Make sure condenser is set to 100x (see arrow on image).**

1. Look down the eyepiece – if the image is blurred, **TURN THE SMALL FINE FOCUS WHEEL ONLY.**

Should only need to turn small wheel towards you by a ¼ or ½ turn.

1. When you are finished, wipe the oil off the 100x lens and slide using a microscope lens tissue and ethanol.

**TROUBLESHOOTING:**

1. **I CAN’T SEE ANYTHING ON 10x OBJECTIVE**

* IS THE TISSUE ON THE SLIDE DIRECTLY UNDER THE OBJECTIVE?
* MAKE SURE THE SLIDE IS ABOUT 1 CM FROM THE OBJECTIVE
* IS THE CONDENSER ON 10x?
* IS LIGHT COMING THROUGH THE SLIDE

1. **I CAN’T SEE ANYTHING ON 40x OBJECTIVE**

* IS THE CONDENSER ON 40x?
* GO BACK DOWN TO 10x OBJECTIVE AND FOCUS YOUR IMAGE ON THIS LENS; THEN GO BACK TO 40x OBJECTIVE AND USE FINE FOCUS TO FOCUS

1. **I HAVE DONE EVERYTHING CORRECTLY, BUT I CAN’T GET MY IMAGE TO FOCUS ON THE 40x OBJECTIVE**

* THERE MIGHT BE OIL ON THE 40x OBJECTIVE. GET A WHITE MICROSCOPE TISSUE AND PUT ETHANOL ON IT – USE THIS TO WIPE OBJECTIVE AND TRY AGAIN.
* IF YOU STILL CAN’T FOCUS THE MICROSCOPE, ASK A DEMONSTRATOR OR ACADEMIC FOR HELP

1. **I CAN’T SEE ANYTHING USING 100x OBJECTIVE**

* IS THE CONDENSER ON 100x?
* IS THE 100x OBJECTIVE TOUCHING THE OIL ON THE SLIDE?
* IF YOU STILL CAN’T FIX IT – WIPE THE OIL OFF THE SLIDE AND 100x OBJECTIVE USING THE WHITE LENS TISSUE AND ETHANOL. THEN GO BACK DOWN TO 10x OBJECTIVE AND FOCUS YOUR IMAGE ON THIS LENS; THEN GO BACK TO 40x OBJECTIVE AND USE FINE FOCUS TO FOCUS YOUR IMAGE; THEN GO BACK TO 100x OIL IMMERSION