# MICROSCOPY - KEY

1. **What is the name given to the most commonly used microscope?**

**LIGHT MICROSCOPE (Compound Microscope)**

**Label the diagram below, use figure 2-12 on p.34 and the word bank below.**

|  |  |
| --- | --- |
| Mirror or light **(#10)**Revolving nosepiece **(#3)**Stage **(#8)**Coarse adjustment **(#11)**Arm **(#5)**Body tube **(#2)** | Diaphragm **(#9)**Low power objective lens **(#4)**Eyepiece/ocular lens **(#1)**Base **(#12)**High power objective lens **(#6)**Stage clips **(#7)** |

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 **OVER 🡪**

**Power Of Magnification:**

**1. If an ocular lens is 10X and a high power objective**

**lens is 40X, what is the total power of magnification?**

**400X**

1. **Define what “Limit Of Resolution” means.**

 **It is the most powerful power of magnification that can be obtained at which two separate points can still be distinguished.

3. What is the limit of resolution for a standard light microscope?**

 **0.2 um**

**4. What power of magnification is the maximum**

**for the best light microscopes that we can make?**

**Approximately 1000 X**

**5. What do scientist do to most prepared cell specimens before viewing them?**

 **Stain them to get contrast**

**Other Types of Microscopes:**

1. **How does a Transmission electron microscope work?**

**It shines a beam of electrons at a sample and the beam goes through the object and creates a magnified image on a fluorescent screen.**

**2. How does a Scanning electron microscope work?**

**A S.E.M. directs a beam of electrons onto a sample, this beam bounces back to create an image on a computer monitor.**

**For homework:**

**- Go to the following website and view some of the amazing images that can be seen with the variety of different microscopes. The site is a bit interactive so you can select the power of magnification that you want to use.**

**Go to:** [**http://micro.magnet.fsu.edu/primer/virtual/virtual.html**](http://micro.magnet.fsu.edu/primer/virtual/virtual.html)