Name:

Chapter 3 and 4

Microbiology

Topics Covered So Far:

Metric Conversions:

* 1 meter = nanometers
* 1 meter = micrometers
* 1 micrometer = nanometers
* 1 nanometer = micrometers

Calculating Total Magnification

* How do you find the total magnification of a scope?
* Calculate the total magnification of viewing a specimen if the objective lens is:
  + 40X
  + 100X

Types of Microscopes

1. Light:

|  |  |  |  |
| --- | --- | --- | --- |
| Type of Light Scope | What is it used for? | Advantages | Disadvantages |
| 1). Lightfield/Brightfield |  |  |  |
| 2). Darkfield |  |  |  |
| 3). Fluorescent |  |  |  |

1. Electron:

|  |  |  |  |
| --- | --- | --- | --- |
| Type of Electron Scope | What is it used for? | Advantages | Disadvantages |
| 1). Scanning |  |  |  |
| 2). Transmission |  |  |  |

Light vs Electron Scopes

|  |  |  |
| --- | --- | --- |
|  | Light | Electron |
| Resolving Power |  |  |
| Magnification Power |  |  |
| Types of Organisms Visible |  |  |

Fixing

* What dies fixing mean?
* How can you fix bacteria to a slide?
* Why do you need to fix bacteria to slides?

Negative Stains

* What’s another name for a negative stain?
* What does it stain? Why?

|  |  |  |
| --- | --- | --- |
| Use | Advantage | Disadvantage |
|  |  |  |
| Examples of negative stains: |  | |

Positive Stains

* What’s another name for a positive stain?
* What does it stain? Why?

|  |  |  |
| --- | --- | --- |
| Use | Advantage | Disadvantage |
|  |  |  |
| Examples of positive stains: |  | |