Sra. Martinez Hampton Bays High School

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unidad 1: Introducción al estudio del medio ambiente**

Capítulo 1 y 2- Chapter 1 and 2

**Método Científico- Scientific Method:**

**Pasos del método científico- Steps of the scientific method**

1.

2.

3.

4.

5.

6.

7.

**Teoría- Theory:**

**Ley Científica- Scientific Law**

**Unidades de medida estándar Internacional- Standard International Measurement Units**

¿Cuál es la unidad estándar para cada uno de estos? What is the standard unit for each of these?

Metro (\_\_\_\_\_\_\_\_)- **m**- La unidad estándar para\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_)

Gramo (\_\_\_\_\_\_\_\_)- **g**- La unidad estándar para\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_)

Litro (\_\_\_\_\_\_\_\_\_)- **l**- La unidad estándar para\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_)

**Prefijos comunes del SI- Common SI prefixes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Prefijo- Prefix** | **Símbolo- Symbol** | **Valor Numérico** | **Valor Decimal-**  |
| Mega |  |  |  |
| Kilo |  |  |  |
| Hecto |  |  |  |
| Deka |  |  |  |
| Deci |  |  |  |
| Centi |  |  |  |
| Milli |  |  |  |
| Micro |  |  |  |
| Nano |  |  |  |

**Escalas de Temperatura- Temperature Scales**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Escala- Scale | Bp of water | Fp of water | Body Temp | Room Temp |
| Fahrenheit |  |  |  |  |
| Celsius |  |  |  |  |
| Kelvin |  |  |  |  |

Absolute Zero- The temperature **where molecules stop moving**

Cero Absoluto- La temperature donde **las moléculas dejan de moverse**

**00 Kelvin or -2730C**

**Tipos de Microscopios- Types of Microscopes**

Light Microscope: Any device (**aparato)** that uses \_\_\_\_\_\_\_\_to produce an enlarged view of an object.

Simple Microscope – The first microscopes had only one lens. They used \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ to produce an image. Also known as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they could magnify (**magnifica)** up to \_\_\_\_\_\_\_x.

Compound Microscope – Utilizes (**utiliza)** \_\_\_\_\_\_\_\_\_ lenses. One lens produces an enlarged image (**imagen engrandecida)** that is further \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the second lens. A compound microscope has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, two \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and a \_\_\_\_\_\_\_\_\_\_\_\_system for adjusting (**ajustar)** the focus (**enfoque)** and image (**imagen).**

**Terminología Microscopio- Microscope Terminology**

**Magnification**- A measure (**medida)** of how much the image is magnified
Total Magnification= objective lens x ocular lens

 Ex. Eyepiece or ocular lens (10x) x Objective lens (40x) = \_\_\_\_\_\_

**Resolution**- The clarity (**claridad)** of an image.

 **As magnification\_\_\_\_\_\_\_\_\_\_\_\_\_\_, resolution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Field of View**

 **As you increase (aumentas) the magnification, the size of the background (fondo) or *field of view* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Microscope Function**

Microscope Part

Function of Microscope Part

Eyepiece (ocular)

Magnifies the image- Aumenta la imagen

 Arm

Support the upper microscope parts and used to carry the microscope

Body Tube

Objective lens

Course Adjustment Knob

Fine Adjustment Knob

Nosepiece

 Holds (detiene) the objective lenses

Stage

Stage Clips

Diaphragm

Lamp or Light Source

Base

Pivot

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**Laboratory Techniques- Técnicas de laboratorio**

**Centrifugation (centrifugación): Materials spin (giran) and are separated based on their \_\_\_\_\_\_\_\_\_\_. The particles with a higher density in the liquid will push themselves to the bottom of a test tube that has been spun in a centrifuge.**

 **Electrophoresis (electrophoresis): The technique for separating molecules of DNA that have an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The distance each fragment moves in an electrical field is dependent upon the \_\_\_\_\_\_\_\_\_\_\_of the molecules in the substance.**

**Micro-dissection: A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is attached to the microscope stage that allows a doctor to use tiny \_\_\_\_\_\_\_\_\_\_\_\_to perform various operations on living things.
Ex. Cloning**

**Ex. Microsurgery**

**Chromatography (cromatografía): A method used to separate & identify chemical substances based upon differences in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in a solvent**.

**Tissue Culture: The technique of maintaining \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or tissues in a culture medium outside the \_\_\_\_\_\_\_\_\_\_.
Ex. Growing embryos in a test tube
 skin grafts (injertos de piel)**