Biophysics Flash Cards

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Light Microscopy Flash Cards

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Durham, NC USA

Instructions

Print the flash cards from the templates on pages 2-3. Each page has 4 flash cards.
The concept is on the left side of the template and the explanation is on the right side.

To create individual flash cards:
1) Trim the margins on the top, bottom, and sides of the page where you see the scissors icon
2) Cut between the cards where you see the scissors icon to create individual cards.
3) Fold the cards in half at the dashed "Fold" line and align the front and back edges of each card.
4) Each template makes 4 flash cards of 2.5 x 3.75 inch (H x W). There are 8 cards in a set.
   The colored border indicates that the cards are in the same set.

Objectives & Grade Level

Teach students basic concepts about biophysics. Appropriate for middle school to high school students. Students can use the flash cards singly or in groups by studying the cards and testing themselves or others on concepts from the cards.

Acknowlegdements

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Biophysical Society

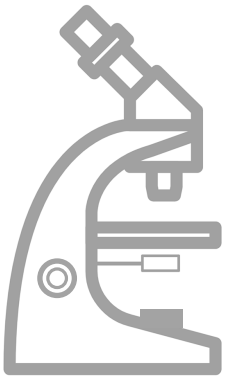
BiophysicsWeek

What is a Microscope?

BiophysicsWeek

Microscopes

enlarge or magnify objects so details can be seen clearly



Adapted from www.autodraw.com

Types of Microscopes

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Simple Microscopes

consist of a lens, stage and focusing mechanism

Compound Microscopes

contain additional lens or lenses

Parts of a Simple Microscope

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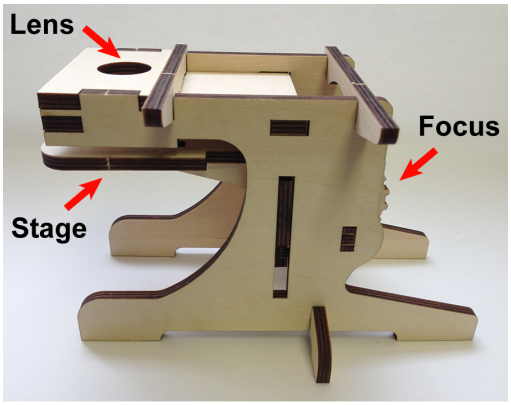

Gift from **Echo Laboratories & Chroma Technology Corp** to the BPS

Parts of a Compound Microscope

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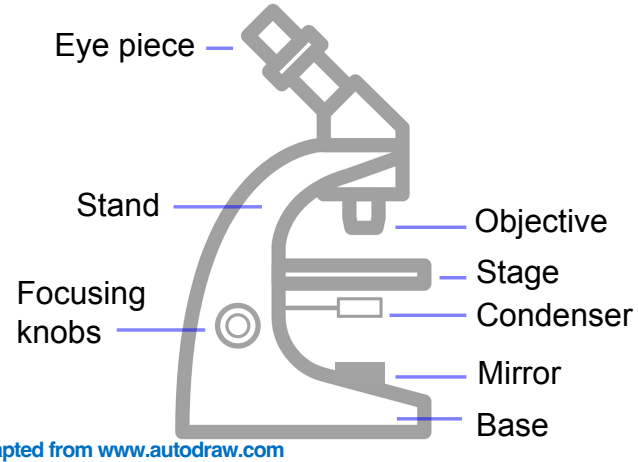

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With support from the National Science Foundation

Lens

What is a lens?

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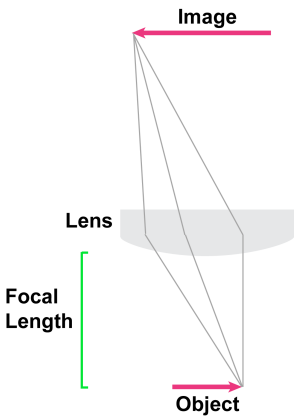
Lenses are glass or plastic

Lenses focus light to form a larger image



www.biophysics.org/biophysics-basics

Focal Point

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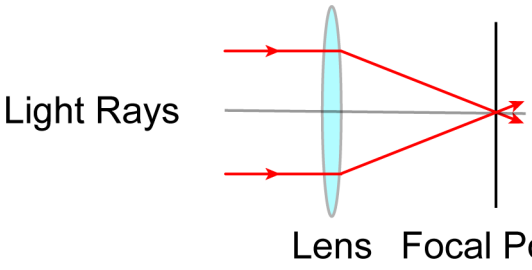
An object at the lens **focal point** will be in **focus**



Magnification

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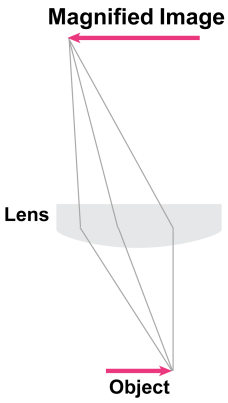
Magnification

is the enlargement of an object relative to its *ACTUAL* size



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Formula for Magnification

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$$M = S_F / S_A$$

M, magnification =

S_F, final specimen size /

S_A, actual specimen size

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