

Compound Light Microscope

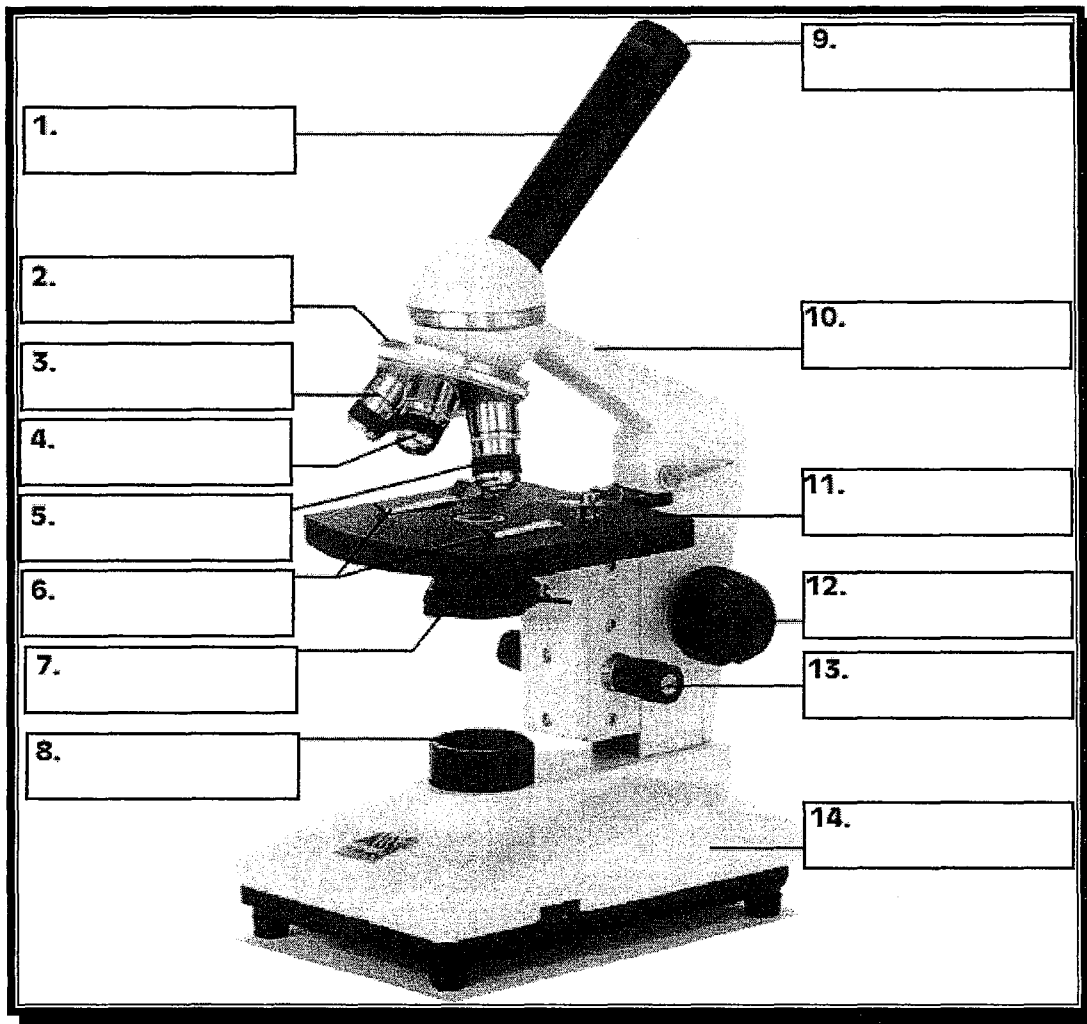
Around 1590, two Dutch spectacle makers, **Zacharias Janssen and his son Hans**, were experimenting with several lenses in a tube. They observed that nearby objects appeared greatly enlarged. This rudimentary discovery paved the way for other scientists to improve on this simple design and fashion simple microscopes. Without the curiosity and inventive nature of such scientific pioneers, we would have little knowledge of the cell and its processes, nor the understanding of the minuscule world of microscopic organisms.

Directions: To learn how to operate a compound light microscope, you must first familiarize yourself with the parts of the microscope and how they work.

1. Use the following word bank to properly label the parts of the microscope (1-14).
2. Match up the parts of the microscope with their definitions by putting the letter of the definition next to the correct microscope part.

Parts of the Compound Light Microscope Word Bank

Ocular (eyepiece)	Stage
Body Tube	Light Source
Revolving Nosepiece	Diaphragm
Scanning Objective	Coarse Adjustment
Low Power Objective	Fine Adjustment
High Power Objective	Base
Arm	Stage Clips



Microscope Part	Definition
Arm	a. supports the microscope
Ocular (eyepiece)	b. directs the light upward toward the stage
Body tube	c. smallest magnifier; used to find specimen on slide
Revolving Nosepiece	d. moves the body tube up and down; large adjustment to focus
Stage	e. where you look through; contains a magnifying lens
Stage Clips	f. attaches body tube and eyepiece to the base
High Power Objective	g. regulates the amount of light that enters the stage
Low Power Objective	h. tube that supports the eyepiece
Scanning Power Objective	i. metal clips that hold the slide securely on the stage
Light Source	j. moves body tube very slightly, used for detailed focus
Diaphragm	k. holds the objectives the proper distance from eyepiece lens
Coarse Adjustment	l. small lens that had low magnification, generally about 10x
Fine Adjustment	m. largest lens with most magnification usually 40 to 50X
Base	n. platform that supports the slide