

BOTANY BO

OVERVIEW OF OUR CURRICULUM-COMPLIANT EXPERIMENTS

LB2.0	INTRODUCTION TO METHODS
LB2.0.0	Microscopy
LB2.0.0.1	Structure and functionality of an optical microscope
LB2.0.0.2	Making preparations
LB2.1	THE SHAPE OF PLANTS
LB2.1.1	Leaf
LB2.1.1.1	Examination of a leaf
LB2.1.1.2	Leaf structure of a moss leaf
LB2.1.1.3	Leaf cross-section with upper and lower epidermis
LB2.1.1.4	Surface cut: Stomata under the microscope
LB2.1.1.5	Plant cell: Structure of an onion cell
LB2.1.1.6	Organs for water evaporation
LB2.1.1.7	Many parts of a plant have evaporation protection
LB2.1.2	Flower
LB2.1.2.1	Examination of a flower
LB2.1.2.2	Pollen and pollen tube
LB2.1.3	Plant stem
LB2.1.3.1	Cross-section through a plant stem
LB2.1.4	Roots
LB2.1.4.1	Organs for water uptake
LB2.1.4.2	Root hair development
LB2.2	FUNCTION OF PLANTS
LB2.2.1	Germination and growth
LB2.2.1.1	Swelling
LB2.2.1.2	Swelling pressure
LB2.2.1.3	Dependence of germination on various factors
LB2.2.1.4	Light influences the germination of plants
LB2.2.1.5	Cellular respiration during germination
LB2.2.1.6	Selection capability of roots
LB2.2.2	Water balance
LB2.2.2.1	Plants cannot live without water
LB2.2.2.2	Water transport in a shoot
LB2.2.2.3	Water rises in capillaries
LB2.2.2.4	Importance of the stomata
LB2.2.2.5	Dependence of the water requirement on number and size of leaves
LB2.2.2.6	Water consumption of plants living in moist and dry habitats
LB2.2.2.7	Measurement of transpiration
LB2.2.3	Photosynthesis
LB2.2.3.1	Light-dependency during photosynthesis
LB2.2.3.2	Testing for oxygen during photosynthesis
LB2.2.3.3	Carbon dioxide and photosynthesis
LB2.2.3.4	Testing for starch during photosynthesis
LB2.2.3.5	Separation of leaf pigments via paper chromatography

