ALIVE

Teacher's Guide

Erasmus+

Connect Instructions

Account Creation

What do you need?

- First name
- Last name
- Password
- Email (optional)

Installation

What do you need?

- 3D viewer software
  - Firestorm (recommended)
  - Kokua

Important Steps (for Firestorm)

- Download the software (select the proper Operating System)
- Install Firestorm
- Add the ALIVE 3D World in the list of the available destinations
- Select the “ALIVE” grid and log in with “First name Last Name” and password

Basic Controls

Navigation

Minimap

Double Click to the required location to **teleport**

World Map

Larger overview, **zoom in/out** to find more regions nearby

Ctrl + I to open **Inventory**

Communication

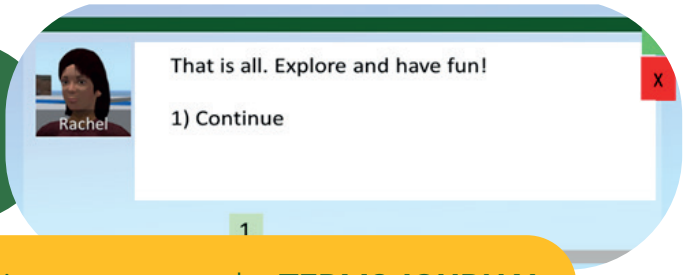
What can you do?

- Add friends
  - Send them a private instant message (**IM**)
  - Request to teleport to them (**Request Teleport**)
  - Ask them to teleport to you (**Offer Teleport**)
  - Create a marker to find a friend (**Track**)
- Participate in conversations
- Configure **Gestures**

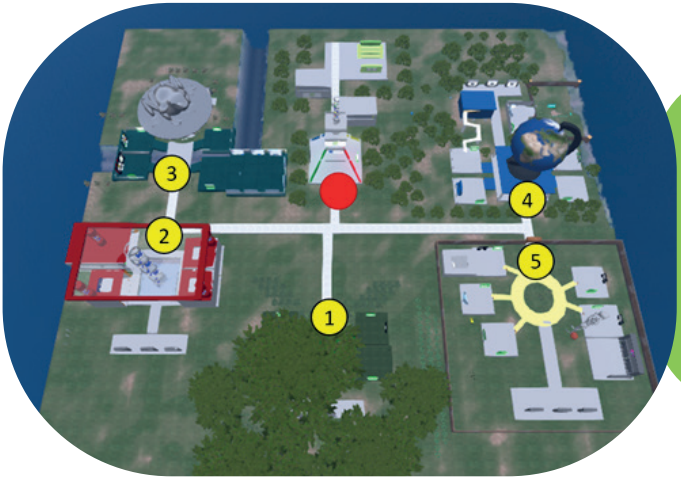
You can also direct your students to the “alive-voice” channel in the Discord Server

The ALIVE Virtual World

The HUD Object



HUD Object also gives access to the **TERMS JOURNAL**



- Alive Tower
1. World of Plants
2. Microbiology
3. World of Living Animals
4. Living Environment
5. Human Body

Theory Panels

Assessment Activites Panels

The ALIVE Virtual World

Living Labs

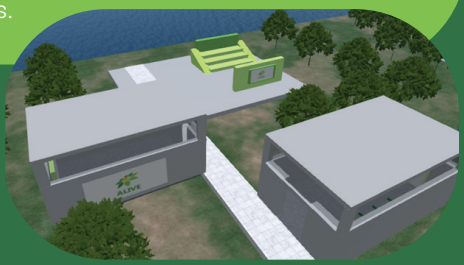
Some of the topics include, more complex activities, where you need to perform experiments, observations or other tasks.

General Assessment Activities

At the end of each Course you will find three assessment activities based on all topics you have studied. Suggest them to use the **TERMS JOURNAL**!

Classrooms and Auditoriums

- Near the **landing area** of the ALIVE Tower
- **Learning sessions** between teachers and students.



The ALIVE Courses

Course Content

- Photosynthesis
- Plant´s respiration
- Movement of water in plants and nutrition of plants
- Reproduction of plants

Keywords

Photosynthesis	Guttation
Mitochondria	Autotrophy
Krebs Cycle	Eterotrophy
Water Regime	Mixotrophy
Osmosis	Reproduction
Root	Pollination
Xylem	Fertilization
Phloem	Seed
Transpiration	Fruit

World Of Plants

The ALIVE Courses

Course Content

- Osmosis, diffusion, mitosis, meiosis
- Influence of microorganisms on human life and the environment (viruses and bacteria)
- Basics of genetics
- Cells as a basic building unit

Keywords

Osmosis	Gene	Multicellular
Diffusion	Genome	Specialization
Endocytosis	Genotype	Plant Tissue
Exocytosis	Phenotype	Meristematic
Mitosis	Alelle	Permanent
Prophase	Homozygote	Dermal
Metaphase	Heterozygote	Vascular
Anaphase	Chromosome	Ground
Telophase	Nucleic Acids	Animal Tissue
Meiosis	Crossbreeding	Epithelial
Microorganisms	Prokaryotic Cell	Connective
Bacteria	Eukaryotic Cell	Muscular
Fungi	Cell Wall	Nervous
Viruses	Cytoplasmi	Cell Division
Heredity	Organelles	
Variability	Unicellular	

Microbiology

The ALIVE Courses

Course Content

- Evolution
- The importance of insects for life on Earth
- Parasites
- Reproduction in animals

Keywords

Evolution
Charles Darwin
Natural Selection
Adaptation
Survival
Reproduction
Ancestor
Human-Driven
Domestication
Fossil record
Anatomy
Embryology
Biogeography
Insects
Invertebrates
Arthropods
Exoskeleton
Antennae
Spiracles
Tracheal System
Foregut
Midgut
Hindgut
Metamorphosis
Pests
Pollinators
Parasites
Mutualism
Commensalism
Parasitism
Pathogen vectors
Zoonotic disease
Parasite Control
Monogony
Binary Fission
Budding
Amphigony
Sexes
Gametes
Hermaphrodites
Fertilization
Oviparity
Viviparity
Fetus

The ALIVE Courses

Course Content

- Biodiversity
- Climate change - its impact on ecosystems
- Water cycle and water movements
- Ecological pyramid
- Natural Resources and Sustainability

Keywords

Biodiversity	Reproduction	Tides
Ecosystem	Extinction	Gravitation
Biocenoses	Biomes	Food chain
Species	Climate	Food pyramid
Genetic	Weather	Climax
Pollution	Global Dimming	Natural resource
Acid rain	Light Pollution	Non-renewable
Eutrophication	Water Pollution	Natural Gas
Overpopulation	Air Pollution	Petroleum
Mass extinction	States of matter	Nuclear energy
Abiotic	Melting	Renewable
Biotic	Solidification	Solar energy
Biotope	Evaporation	Wind energy
Ecological niche	Condensation	Biomasses
Predator	Sublimation	Geothermal
Prey	Dew Point	

Living Environment

The ALIVE Courses

Course Content

- Circulatory system + Blood types
- Nervous system
- Respiration system
- How can nutrition influence the functioning of organisms?
- Defense functions of the organism (How does immune system work?)

Keywords

Blood	Central Nervous	Proteins
Pulp	Neurons	Fats
Vessels	Spinal cord	Sugars
Heart	Brain	Dietary fiber
Circulatory system	Reflex	Vitamins
Arteries	Reflex arc	Salts
Aorta	Breathing	Drinking regime
Veins	Oxygen	Immunity
Capillary	Carbon Dioxide	Antigen
Lympathic vessels	Pulmonary Resp.	Allergy
Vestibule	Tissue Respiration	Immunization
Ventricle	Upper Airways	
Erythrocytes	Lower Airways	
Lekoocytes	Lungs	
Trombocytes	Defensive Reflex	
Peripheral Nervous	Food evaluation	

Human Body