

OpenSchoolMaps: 01 Introduction to QGIS 3 and GIS

OpenSchoolMaps.ch — Free learning materials for free geodata and maps

A handout for interested people and teachers

Overview

Goal

After completing the corresponding worksheets, you or the students will understand some fundamentals of GIS and be able to use the basic functions of QGIS 3.

Audience

- Students in curriculum 21 cycle 2 or 3 (4th to 9th school year) supported by a teacher
- Autodidacts with self-study

Scheduling

- Each chapter takes at least 1 hour.

Preparation

You / the students should have installed or have access to the desktop software QGIS version 3.x on a computer. In case of problems choose QGIS version 3.4.5 LTR (64 bit).

The students need a **web browser** with **internet access** to complete the worksheets.

Chapter test questions

There are currently 5 chapters respectively 5 worksheets. See chapter "Chapter test" at the end of the corresponding chapters or worksheets.

Chapter 1 What is a Geographic Information System?

- Question 1 What can you do with a GIS?
- Question 2 What tools do you have to navigate on the map?
- Question 3 In which subject would GIS be useful?

Chapter 2 What is Geodata?

- Question 1 What do the raster and vector format look like?
- Question 2 What does the terms geodata/spatial data mean?

- Question 3 What is the difference between WMS layer and vector data layer?

Chapter 3 Data Collection and Management

- Question 1 What two ways do you know of storing vector data?
- Question 2 Describe the structure of a table.
- Question 3 What must a text file contain in order to be visible in the map window?
- Question 4 What possibilities do you have to get the different data?

Chapter 4 Data Analysis

- Question 1 What is the difference between query and manipulation?
- Question 2 Creating an SQL query
- Question 3 Combination of SQL Queries

Chapter 5 Presentation of Geographic Information

- Question 1 Creating and exporting a map
- Question 2 Evaluate map

Any questions? Turn to QGIS (<https://www.qgis.org>) or Stefan Keller (sfkeller@hsr.ch)!



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