

A. COLLECTING DATA OUTSIDE OF SCHOOL

Students go outside of school to collect data. The data can either be in the form of multimedia or scientific observations. Either the entire class goes outside, or only some of the students.

You can look forward to...

- ... a refreshing change by going out of the school building.
- ... an exciting time looking for data in the environment.
- ... additional motivation by turning data gathering into a game.
- ... possibly freeing your time for other duties while the students are outdoors, in case a parent or another guardian is available to assist you.

Your learners may learn...

- ... to plan a research project and develop research skills, including choosing and planning activities leading to deep engagement with the chosen frame.
- ... to use tools for investigation, collecting data and evidence.
- ... to take responsibility for their own learning.
- ... about different ways of extracting information from data.
- ... to develop their creative and critical thinking skills.
- ... to make content choices and how to frame a topic.

Ideas for using technology

Data collection

Personal or school loaned devices, such as smart phones, mobile phones, net-books or laptops can be used to collect photos, audio and video material from the surroundings. Based on their area of focus, also other sensors and scientific measurement instruments, such as microscopes and

thermometers can be used to gather data, such as geo-location information, temperature, air quality etc. These tools should be provided by the school.

Sharing data

Use of the notebooks and laptops supports sharing of data.

Taking notes

Mobile phones or dictation devices can be used to make audio notes. Pictures or video can also be used, or notes can be taken using pen and paper.

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1. Preparation

Chose a general frame for the group work.

Decide whether the outside activities happen during class time, or are assigned as team homework.

Arrange for adult guardian

Arrange devices

Collect examples of information gathering

2. Introduction

Form small teams, each with a separate topic linked to the theme of the course. See activity 'Forming teams'.

Each team should come up with a schedule about when and where to collect data. They should also have backup plans in case of bad weather or other unforeseen issues.

Support each team with their schedule design, i.e. deciding what data to collect, where and how to collect it. Review the plan with each team.

After completing their schedules, each team records a newsflash about their schedules. See activity 'Recording team news flashes'

Present examples of collecting data to learners.

Discuss the benefits and drawbacks of different data capture methods and devices with the learners.

If the information capturing devices are unfamiliar, let the learners practice using them through free exploration.

3. Activity

Teams investigate and collect data outside. Outdoor data can be of very different kinds: it can be measurements of the natural environment, photos of culturally interesting sites, interviews of local people, or statistics.

Teams should store and analyse their collected data.

Teams may share their data with others as they collect it.

Teacher or guardian who supervising the teams, should take notes of teamwork progress, and of what each team could improve or practice further.

4. Assessment

After the outdoor activities are completed, each team records a newsflash summarizing their work and work experience.

Compare the teams' schedules with the decisions taken, the steps performed and the data their collected.

It is unlikely for you to follow each team's progress evenly. Use the team newsflashes to stay updated about their progress.

Ask the learners to grade their teammates' contributions to the outside activities. You may use the learner grades as help for forming your own assessment.