

A walk in the moor.

Water in the moor should be acidic and should contain less oxygen than ordinary water (pH 7, oxygen 14,6 mg/l). In the air should be more oxygen and less carbon dioxide than in ordinary air (O₂ 21% and CO₂ 375-410 ppm) .

Today we are going to measure:

- Water pH
- Dissolved oxygen in the water
- Water and air temperature
- Oxygen in the air
- Carbon dioxide in the air

We are using:

- Lego EV3 (we need special adapter and special program)
- Vernier sensors (pH sensor; O₂ sensor; CO₂ sensor; Dissolved Oxygen sensor; Temperature sensor)
- Computer (for measuring CO₂)
- Some bottles to collect some water samples.

Every group have one Lego EV3 with adapter and one temperature sensor. You have some empty bottles. We have to share other sensors, you should ask if you want to measure something.

What you are going to do? (You have to fill tables on the other side of paper!)

- At the beginning measure air temperature, O₂ and CO₂ levels in the air.
- During the walk you have to collect at least 3 different water samples in your bottles. Try to choose different places (for example: lots of plants; less plants; in the shade; in sunny place...)
- When we are on dry land (or at least drier), then you should measure air temperature, O₂ and CO₂ (if it is possible to use computer) levels in the air again. (At least once during the walk.)
- At our stopping point you are going to analyse your water samples: measure temperature, dissolved oxygen and pH.

Air

Description (describe what you see around; what is the weather like...)	Temperature	O2	CO2

Water

Number of water sample	Description (describe the place you collect this water sample; describe the water sample: is it clear, what color is it...)	Temperature	pH	Dissolved O2
1.				
2.				
3.				