

Weather forecast

Good practice

Belgium





Driving question

How can I investigate the weather and turn it into an accurate weather forecast?



What do I
teach?

A project!

Content

- 4 week project
- Data collecting skills
- Outdoor and community-based learning
- Subjects: language, science, mathematics & ICT

Subject content

- Weather during 24 hours
- Differs from place to place
- Detailed information by collecting data (patterns)
- Changes are important!

Vocabulary

★ Words we use in the lessons

★ both in science and in language



Week 1

★ science

- What does a meteorologist do?
- What instruments do we need?
- Do it ourselves!

★ ICT

- spreadsheets - collect data

★ literature

- close reading
- new words

Week 2

★science

- build our own tools

★ICT

- spreadsheets - use formulas to calculate averages

★literature

- Practice the use of adjectives (comparative and superlatif)

Week 3

★ science

- Let's go outside!
- every day - collecting data
- set up television area
- make weather maps

★ ICT

- spreadsheets - create charts and graphs

★ literature

- write a report

Week 4

★science

- role-play - weather forecasts
- video tape of weather reports

★mathematics

- learn about average

★ICT / literature

- finish report and spreadsheet

Outdoor/community -based

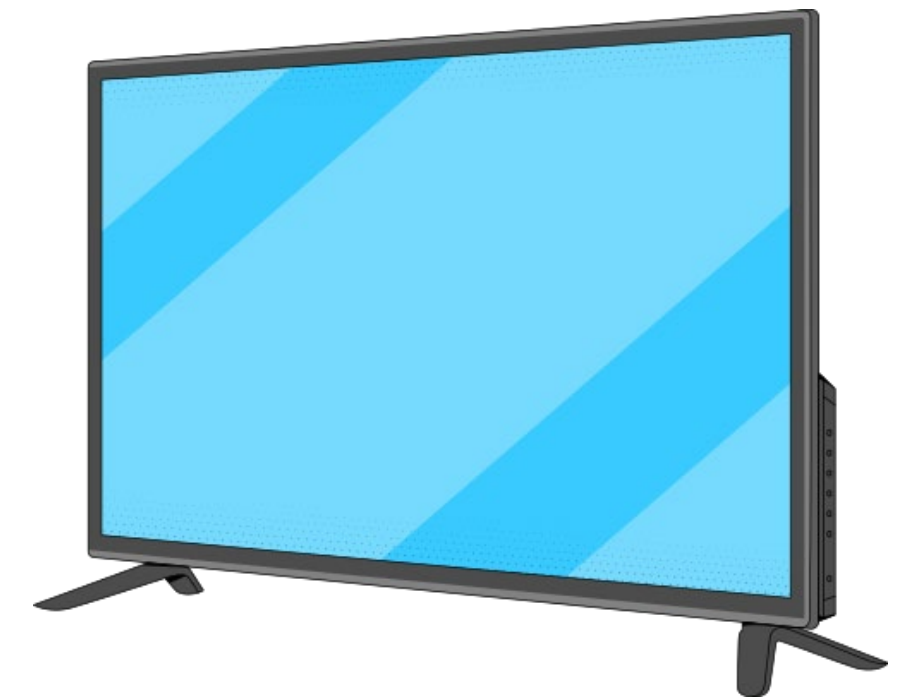
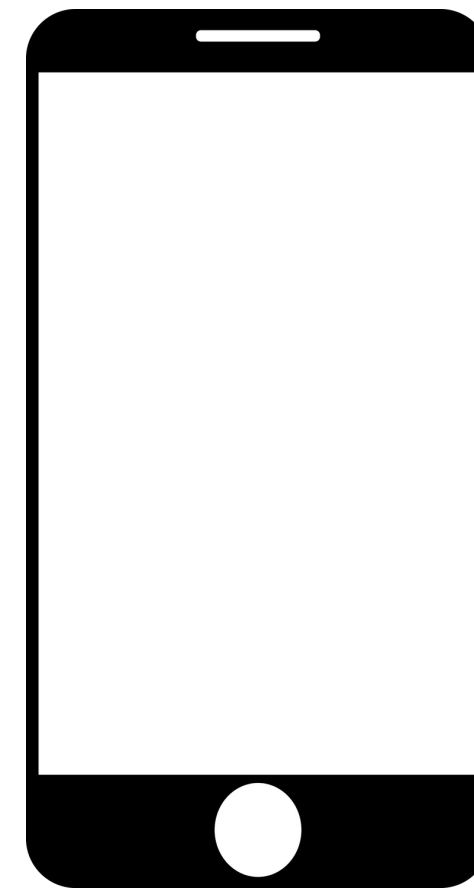
- ★ Visit a local meteorologist
- ★ Collect data from the weather station
- ★ Observe the weather outside
- ★ Talk to people (firefighters/farmers/...) about why the weather forecast is important to them.



How do I
teach it?

Step 1

How did you decide what to wear today?



Step 2

We want to measure some weather elements.

temperature

wind

precipitation

How would you start?

Your turn!

We are going outside.

First, we'll take a look at the worksheet.

Check the boxes

What new words did you use in your weather report?

- Temperature:** measure of how warm or cold the air is
- Humidity:** measures how much moisture is present in the atmosphere
- Air pressure:** the amount of air molecules packed into an area
- Wind:** the movement of air through the atmosphere
- Precipitation:** is any form of water falling from the clouds such as snow and rain.
- Weather pattern:** When the weather maintains consistency for a period of time
- Weather report:** a systematic statement of the existing and the predicted meteorological conditions
- Weather station:** a station for taking, recording, and reporting meteorological observations
- Rain gauge:** indicates how much precipitation has fallen
- Thermometer:** instrument used to indicate the temperature
- Barometer:** instrument to measure air pressure
- Wind vane:** instrument to measure the speed and direction of the wind
- weather map:** map that shows what the weather will be like
- cold front:** mass of cold air that replaces a warm air mass
- warm front:** mass of warm air that replaces a cold air mass
- cloudiness
- dryness
- humidity
- sunshine
- storm
- hurricane
- tornado
- blizzard
- hail
- thunder and lightning storm
- fog
- heatwave

Instruction

What do you have to do? (instructions)

This week, before the lessons start and once in the afternoon, you will go outside to observe the weather and to take measurements using the available instruments.

You record what you observed and what you measured on this worksheet.

Be precise and provide detailed information on the weather everyday. Answer every question!

Use as much words that we learned as possible.

If you do this well, you will have no problem analysing the data in your data sheet next week.

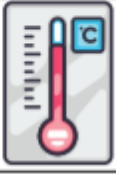











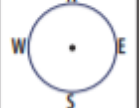
What are your learning goals?

At the end of this week, you will be able to...

- write a weather report applying the weather terms;
- identify, explain and use differing weather symbols;
- plan and implement investigative procedures;
- select and use appropriate instruments to measure in real-world situations;










Scheme

What's the weather like today?

Measure twice a day!													How would you describe the weather today?
MONDAY	°C		mm										

- Go outside 2x every day
- Check the relevant boxes
- Short description

Scheme

	calculate the average temperature	Does the wind always blow in the same direction?	How much rain did we get this week?	How many times did we get:									Can you predict next weeks weather?
													

- Conclusion
- Start of the weather report
- Prediction

Your turn!

Go outside in groups.

Fill in the observation for one day.

We'll meet again in 10 minutes.



Observations

Which boxes did you check?

What was your observation?

How did you start?



Observations

Investigation of different elements

Is there something you can use in the neighborhood/ community?



Observations

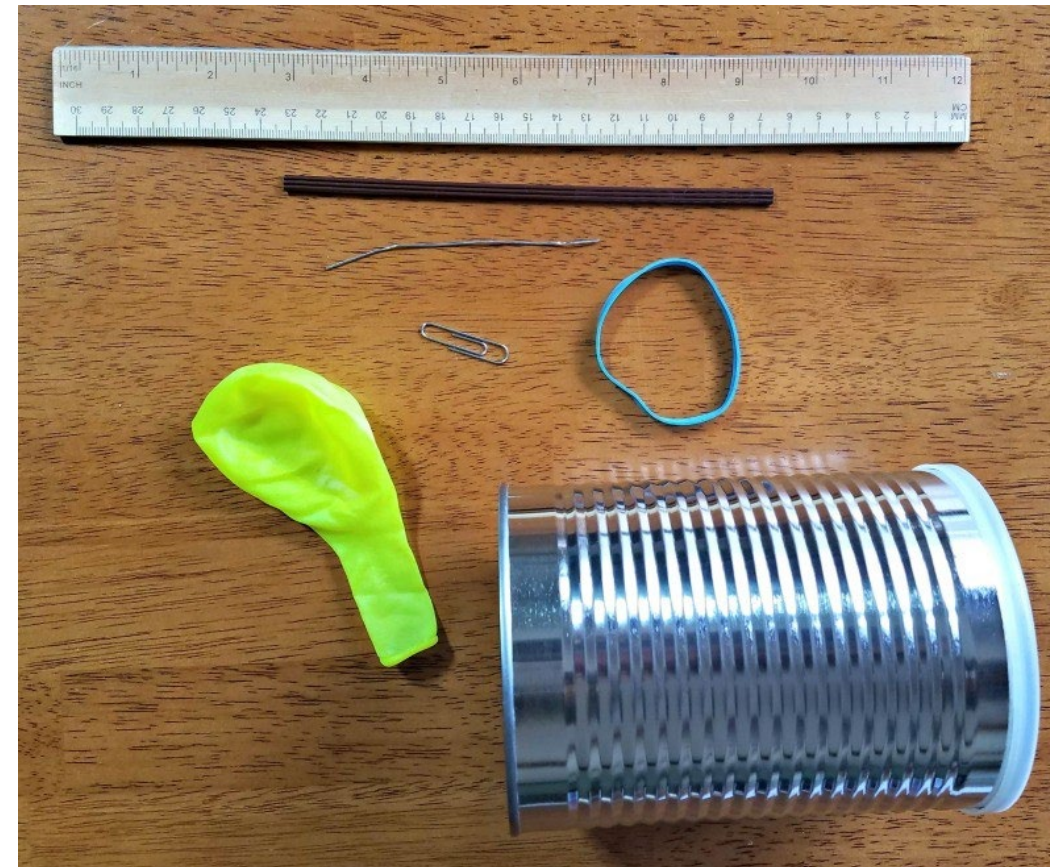
What if we don't have the instruments?

We make our own!

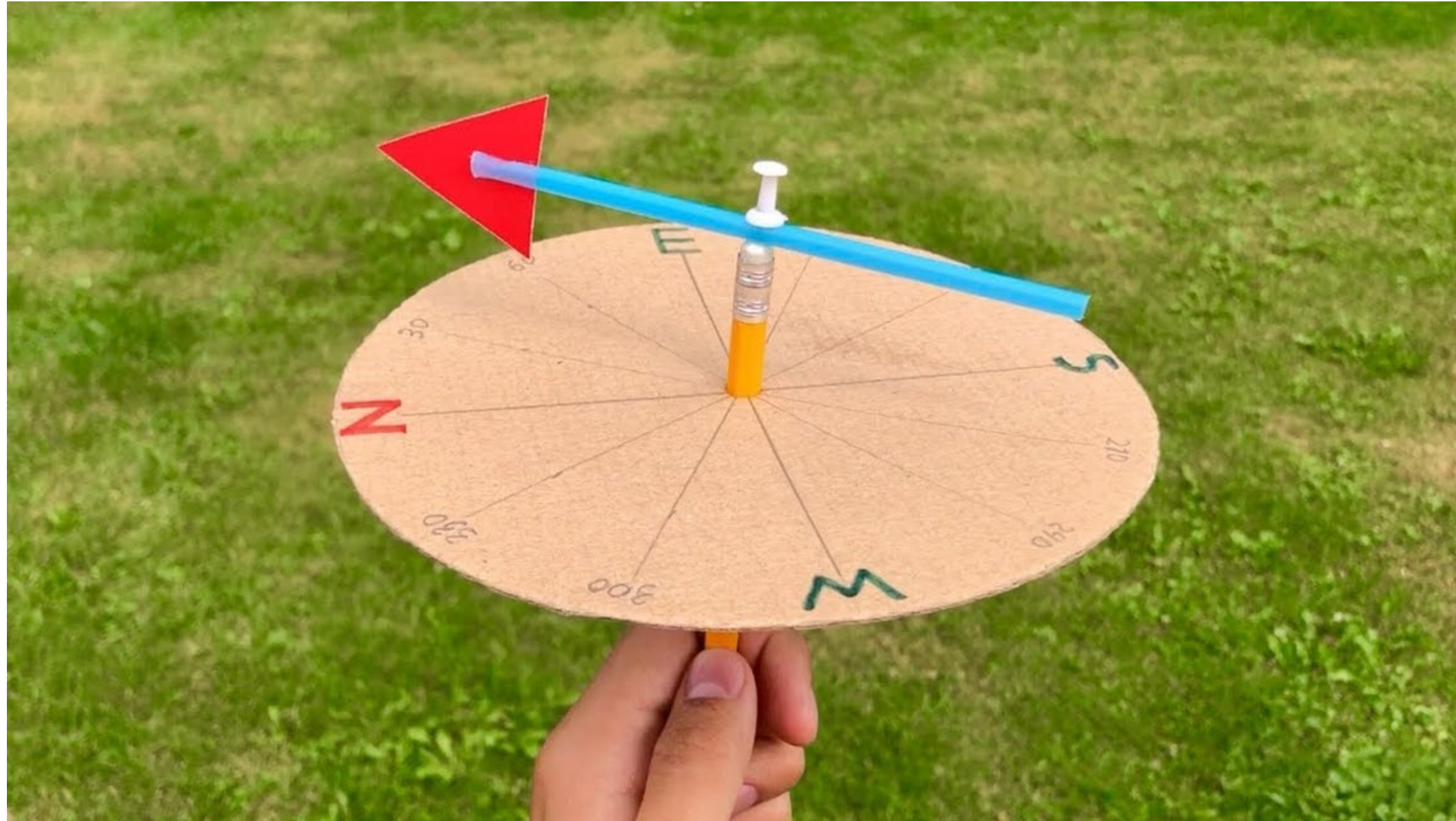
rain gauge



barometer



Observations



Observations

Did you pay attention to:

- smells?
- feelings?
- noises?
- ...?



Evaluation

- weather report
- spreadsheet
- peerevaluation
 - during groupwork
 - focus on several goals



Q&A



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