IT'S TIME TO CARE!

PROJECT DURATION: 1 SEPTEMBER 2018 - 31 AUGUST 2020

The ITTC project is co-funded by the Erasmus+ Programme of the European Union

Project website: www.zstravnik.cz/ittc

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ZS PREROV, TRAVNIK 27

SUSTAINABLE TOWNS

SUSTAINABLE TOWNS

- systematically and measurably meet the standards of sustainable development, responsibly create conditions for quality of life and health, with the active participation of its citizens in all interrelated topics ..

1. Governance and territorial development
2. Environment
3. Sustainable consumption and production
4. Transport and mobility
5. Health
6. Local economy
7. Education and training
8. Local culture and traditions
9. Social environment
10. Countryside, landscape, agriculture
11. Global responsibility

Where do we get to know of the topic Sustainable Town?

- in Geography and Ecology lessons
- at events organised by our school (Eco-conference, ...)
- at meetings with experts, town deputies, …
- on the Internet
- while taking part in Carbon Dioxide League competition
- in regular Eco-team meetings

Where do we get to know of the topic Sustainable Town?

- ***EKOPOLIS – an excellent board game***
  - which we play at Eco-team sessions and in Ecology lessons.
  - The game teaches us to think about the basic principles of a territory, e.g. the valley in which individual towns are developing. Each player is a mayor of a town and he/she tries to build a working town according to the principles of sustainable development. Pupils/Players have to cooperate to create sustainable region.

Carbon Dioxide League

Our Eco-team was involved in a year-long national competition called **Carbon Dioxide League.**

- 1st and 2nd rounds were focused on climate changes, their causes and impacts and how to adapt to them. We also calculated our school´s carbon footprint.
- 3rd, 4th and 5th rounds were devoted to the town

Přerov under the magnifying glass of the CO_2 league competition

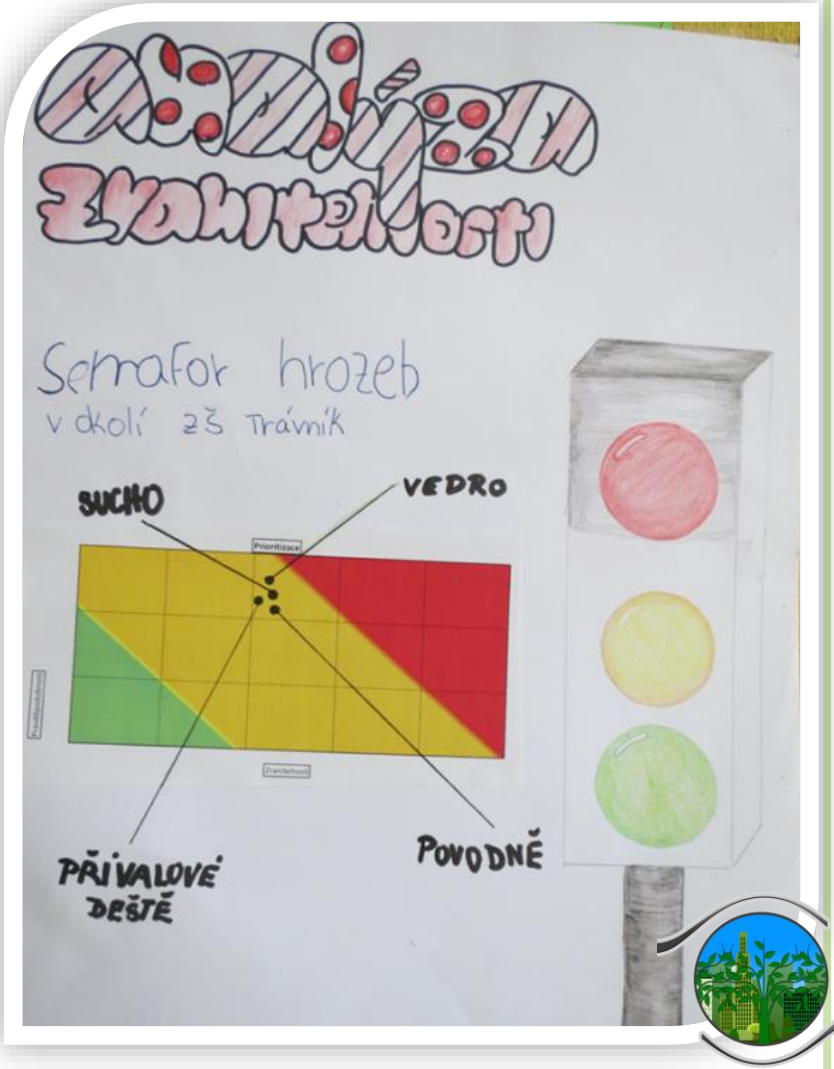
- A great challenge for us was to analyse **the vulnerability of the town of Přerov**
- We had to deal with a number of tasks - a threat of floods, droughts, torrential rains, heat waves, winds…
- **Meeting with Mr Pavel Košutka** (town deputy, Přerov) and **Ms Yvona Machalová** (environmental department, Přerov) helped us to broaden understanding of the topic.

Přerov under the magnifying glass of the CO_2 league competition

What makes Přerov the most vulnerable?

A semaphore of threats:

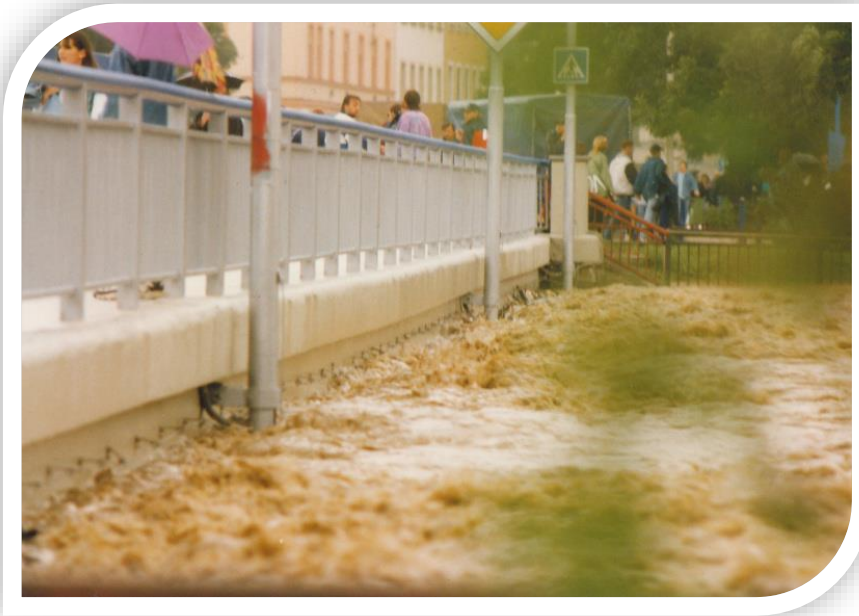
- Přerov is endangered by ***heat, drought, floods and torrential rains***



Floods

- The risk of flood is still there, but it has decreased since the last major flood in 1997 thanks to flood control measures.

Flood 1997



Flood 1997

FLOOD 1997 – OUR SCHOOL

Map of Threats

- Above the map of Přerov pupils evaluated which places needed to be improved in terms of adaptation to climate changes.

- Students, teachers, the headmistress and even our guests from the town council pinned pins to places of potential threats of flood, heat and drought.

- Then town representatives informed us about the proposed improvements of the situation.

- We selected places that needed to be changed.
- The task was to **propose from 3 to 5 concrete measures to increase their resilience.**
- Interestingly, they were all near our school. ☺

„Resilience“ relates to the impacts of climate changes and how the towns react to them.
It is not only about how to manage the changes, i.e. adaptation, but mainly how to learn from the impacts.

We suggest possible improvements

- The students in Ecology lessons produced drafts of the area in front of the school
- We sent the best proposals to the Přerov deputy for local development together with the letter written by our pupils.
- One of our requests was met immediately - the benches were installed under the trees in front of our school and so the students can spend their free lessons in the shade.

SOME OF OUR SUGGESTIONS

were similar to the already existing revitalization plan of Trávník housing estate so we are looking forward to

- more trees in our surroundings that will give us shade and keep air and soil humidity
- a white pavement that will reflect the sunshine
- green lawns which will improve the housing estate´s microclimate
- drinking water for people and water drinkers for animals that will moisten the environment of the housing estate

School surrounding changing and increasing its resilience

- Planting trees is the simplest but also the most valuable contribution to future generations.
- It is not easy to find an appropriate place in Přerov because of lots of concrete surfaces and underground cables.
- Therefore we planted 2 trees in our school garden. One was the original apple variety, another one was a lime, which we planted 28/10 to the 100th anniversary of the Czech Republic

Help us to suggest other improvements to decrease heat and drought in our school surroundings and in our town.

How can we influence the school environment?

We experimented and measured $C0_2$ concentration

- A part of the workshop with Mr. David Simek was the measurement of $C0_2$ in classrooms using a $C0_2$ meter.
- We kept the meters in the classes for 14 days and were referring data on the temperature, humidity, but above all the amount of $C0_2$ into a chart.
- The amount of $C0_2$ increased when we did not ventilate enough. In a ventilated room the level of $C0_2$ was about 400 ppm (the same as outdoors) but in an unventilated room it was up to 1.200 ppm which highly reduced pupils' concentration and thus their school results.
- We liked $C0_2$ measurements so much that we have bought it for use at school and we are going to measure $C0_2$ even outside and make various experiments on environmental issues.

Air conditions in Přerov

The air quality status is monitored by the measuring station. **Major pollutants, i.e. airborne dust (PM10), sulphur dioxide ($S0_2$) and ozone (0_3), are measured.**

Air quality of the town is influenced by several factors:

- Industrial resources
- Transport
- Secondary emissions, where road dust is repeatedly whirled in the air by passing vehicles. Intensity of road traffic in Přerov is increasing every year.

Air conditions in Přerov

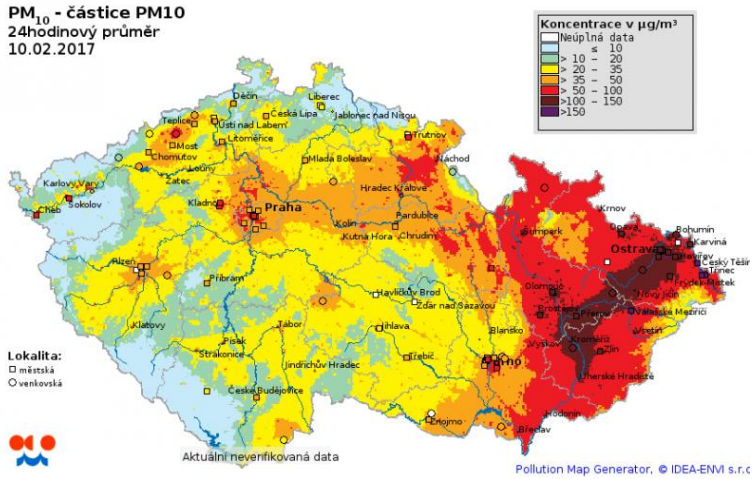
- The location of the town in the mouth of the Moravian Gate (long ground depression) that's why in autumn and winter, there is a large number of inverse days in our country, and the possibility of venting pollutants is more difficult

Children from our school spend a week in the Protected Landscape Area of Jeseníky and Beskydy Mountains every year. The stays are subsidized by state and are set for children from towns with high levels of air pollution.

Where to gain information on air pollution and how to improve it?

We can get information on the air quality via:

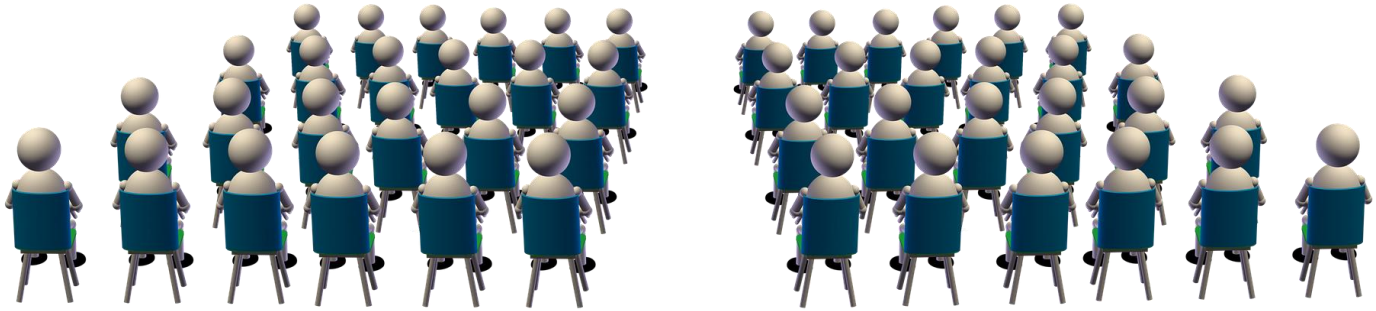
- Light boards on the town website
- SMS after their registration
- http://portal.chmi.cz/aktualni-situace/stav-ovzdusi/ovzdusi-v-regionech/olomoucky



How to help?

- Use ecological individual heating (natural gas, electric heating or alternative non-emission sources)
- Don´t burn waste in stoves or boilers
- Prefer public transport to an individual journey by car
- Ride a bike or walk - Přerov is not that big
- Support development of bike paths, rest zones and public green areas
- Save energy – invest in insulation, new windows, energy saving appliances, measurement and heat regulation
- Use regular but a one-shot ventilation

Thank you for your attention.



SOURCES OF PICTURES AND TEXTS

- https://galerie.udrzitelne-mesto.cz/
- http://www.deskovehry.com/fotky/ekopolis/
- https://prerovsky.denik.cz/
- http://dasaphotos.com/
- https://pixabay.com/cs/
- http://www.zstravnik.cz/

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