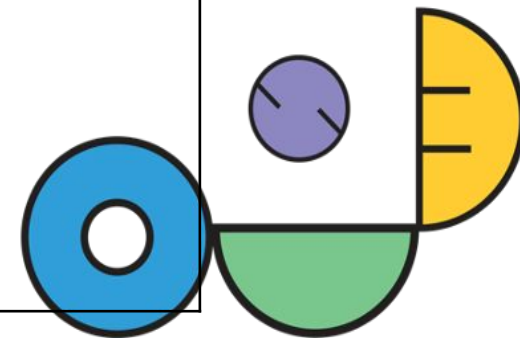
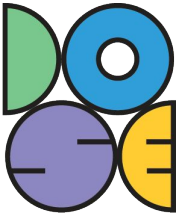


Real-life contexts

Description of the activity:	Theoretical explanation with practical examples. Theoretical part include the brainstorming sessions and sharing experience.
Target group(s):	Primary schools teachers and basic school STEAM subject teachers
Keywords:	<i>real-life contexts, socio-scientific issues, citizenship</i>
Duration of activity:	2 h.
Description of activity environment and materials needed:	<p>In this activity you will learn about real-life contexts, what is it, how to use it and why we should use it in education. Activity include:</p> <ul style="list-style-type: none"> • presentation and explanation of the topic, • presentation and analyze of practical examples, • brainstorming session, • sharing experience • and creation of real-life contexts lesson activity (lesson plan). <p>For implementation needed: computer with internet connection, multimedia, flip-chart.</p>

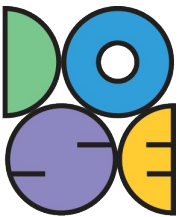




Context:

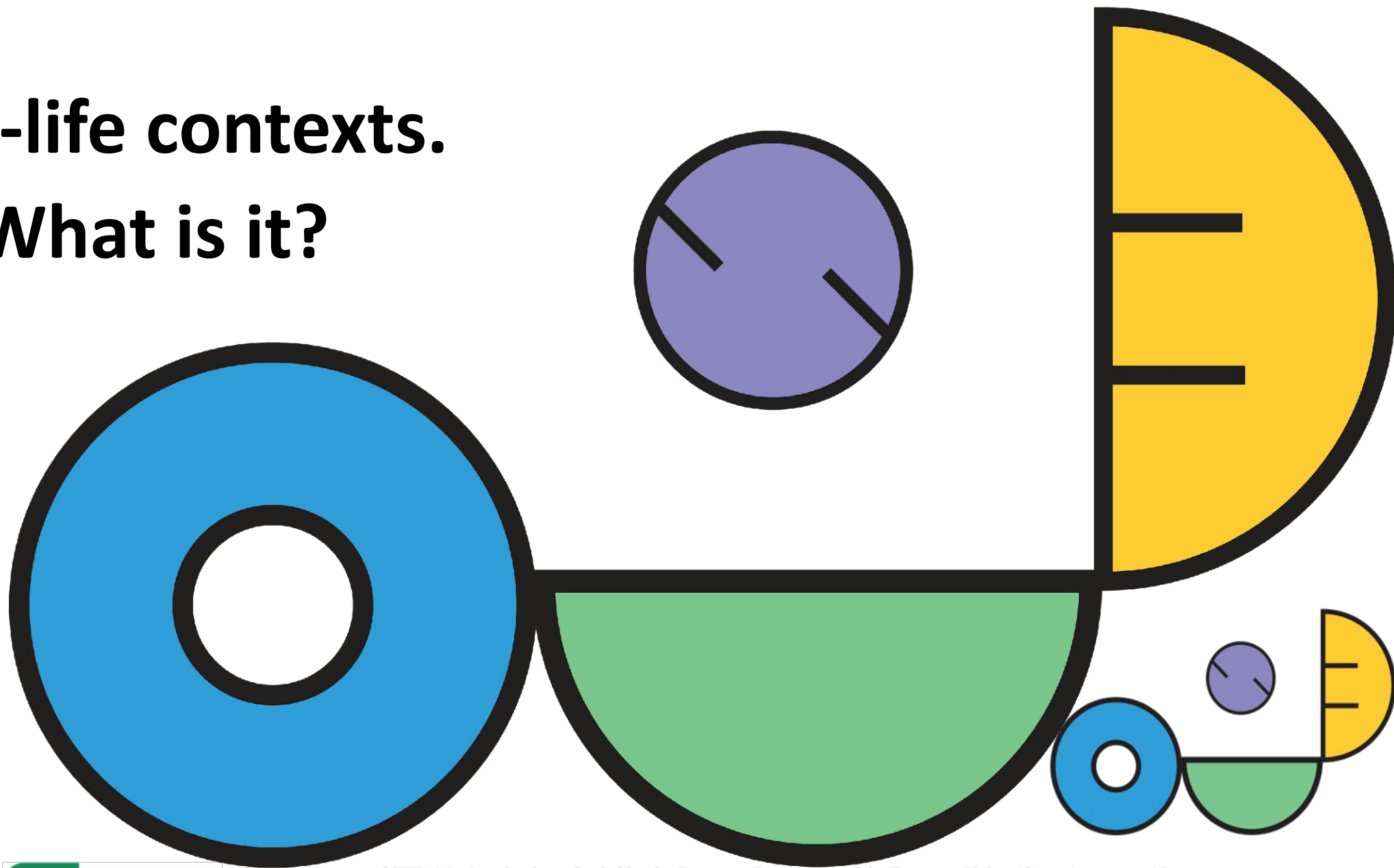
- *real-life contexts,*
- *socio-scientific issues,*
- *citizenship (including informed decision making)*

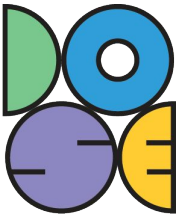




Real-life contexts.

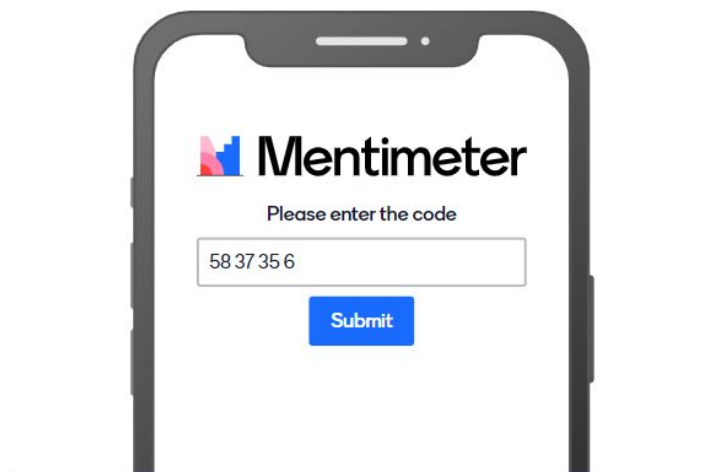
What is it?





1 task. Brainstorming

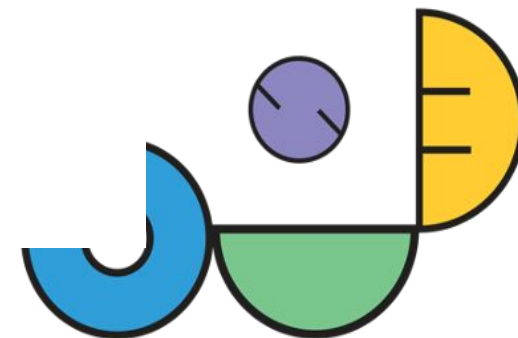
www.menti.com

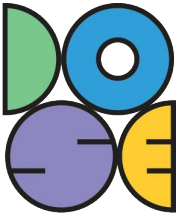


Enter the code
58 37 35 6



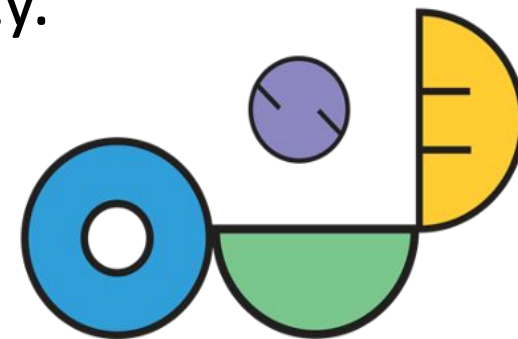
Or use QR code

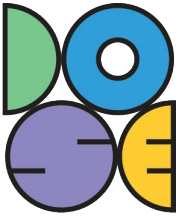




Real-life contexts. What is it?

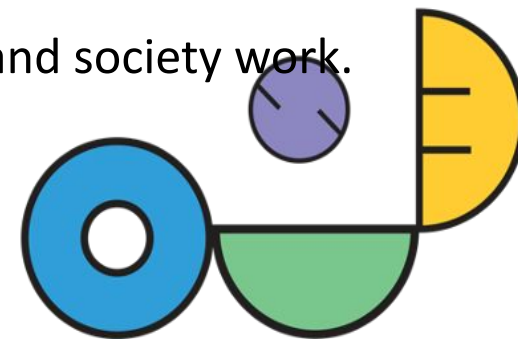
- Real-world connections draw from, or upon, actual objects, events, experiences and situations to effectively address a concept, problem or issue.
- It involves learning that allows students to actually experience or practice concepts and skills, as opposed to learning that is theoretical or idealistic.
- It features learning projects that directly relate to, are relevant to, or provide benefit to students, their families or the community.

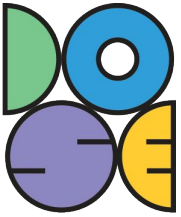




Real-life contexts. Why use it?

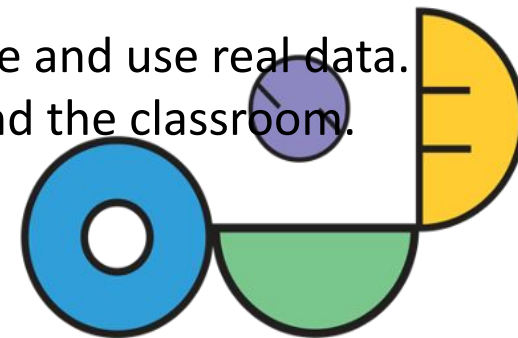
- This approach utilizes concepts, problems, or issues that are similar to ones students have encountered or are likely to encounter in life.
- It brings the relevance, complexity and motivation of the real world to learning.
- Sensory experiences are highlighted thereby appealing to and assisting a wide range of learners.
- Making real-world connections promotes student achievement through the authenticity of the learning.
- Learning is based on information derived from real-world sources
- The learning and the results of the learning are directed to audiences beyond the school.
- It supports character education as relationships between the community, the school and students are enhanced.
- It generates many issues or questions to pursue through inquiry.
- Real-world connections provide more opportunities to learn how our communities and society work.

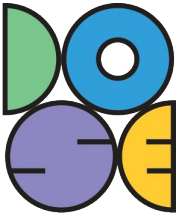




Real-life contexts. How to use it (1)?

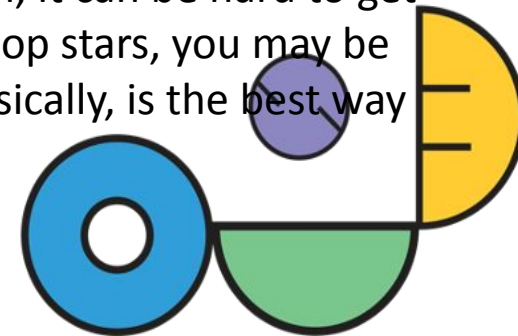
- Routinely provide students with living and inanimate objects to manipulate and experience such as 3-D models in chemistry, blocks in mathematics and artifacts in social studies. These hands-on learning opportunities are highly engaging and can help students successfully complete complex tasks requiring abstract thought.
- When possible, have the learning process include the making of something useful. (to eat- biology students make yogurt, to use- social studies students make a paddle, to sell- technology students form a manufacturing company to market & and produce a product)
- Where appropriate, focus learning on current issues and problems familiar to the students. Support student action to find solutions or examine relevant case studies when circumstances prevent direct student involvement in the issue(s).
- Provide frequent opportunities in all subject areas for students to collect, manipulate and use real data.
- Find opportunities for students to communicate what they learn to audiences beyond the classroom.

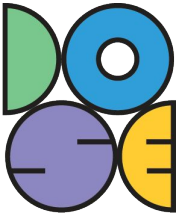




Real-life contexts. How to use it (2)?

- Look to the broader community for partnership and mentoring opportunities that will allow students to practice, enhance and apply classroom learning in a real-world setting.
- Use media sources. Media is the main tool used by teachers to bring the real world into the classroom. With the help of YouTube, streaming videos, podcasts, and news feeds, it is much easier to bring the material to life and gain the students' interest. Students can satiate their natural curiosities by researching related topics via the Internet. You may also want to use national or international online news networks to discover topics of interest and open the classroom to the wider world. Leverage social media to make their interactions with the real world interactive. They can add comments to articles and tweet and blog their opinions on global and local issues. Seeing their comments read by thousands and having others respond – possibly from across the globe – will empower them!
- Make a Real-Life Connection Through Technology. Employ Gamification in the Classroom. Gamification is the latest buzzword for saying, incorporating games into lessons. Depending on the grade level you teach, it can be hard to get certain students interested in current events. If the topic does not include movies, games, or pop stars, you may be hard-pressed to grab students' attention. Encouraging students to be active, mentally and physically, is the best way to make a real-world connection.





The bird of soul

- In science lessons, students observed birds, took photos, gathered information, and presented the activities to classmates.
- In art lessons, they drew and painted imaginary birds of the soul.
- Students created sketches, made scrapbooks, and sewed birds in technology lessons.
- In moral education lessons students created their own inner world inhabited by the bird of the soul, experimented and created inclusions from ice with natural materials.
- in music lesson students sang songs about birds.

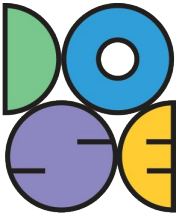
Author: Zita Dzedulionienė

Organisation: [Kauno rajono Šlienavos pagrindinė mokykla](#)

- [Video](#)

An example





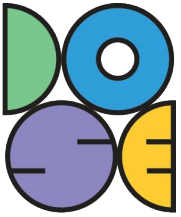
Summer entertainment - water. Where is the best?

An example

The aim of the personal project of the II (10th) grade student:

- To help those around them to better orient themselves in publicly available information and to get acquainted with possible risks if a water body is polluted.
- Tasks to do:
 - to know the aspects of water quality determination and the results of research on their significance;
 - examine the potential risk to the human body if the water is contaminated with micro-organisms or any potentially contaminating substances.
- [Presentation of student's work](#)





„Barefoot“ walk

- The aim of the project is to plant the "Barefoot" walk with spring plants. Students created a model of planting an infinity sign using planting instructions in the math lesson. They collected information about flowering bulbous plants suitable for Lithuanian climatic conditions and planted a model of the infinity sign with crocuses, tulips, daffodils and hyacinths in the biology lessons.

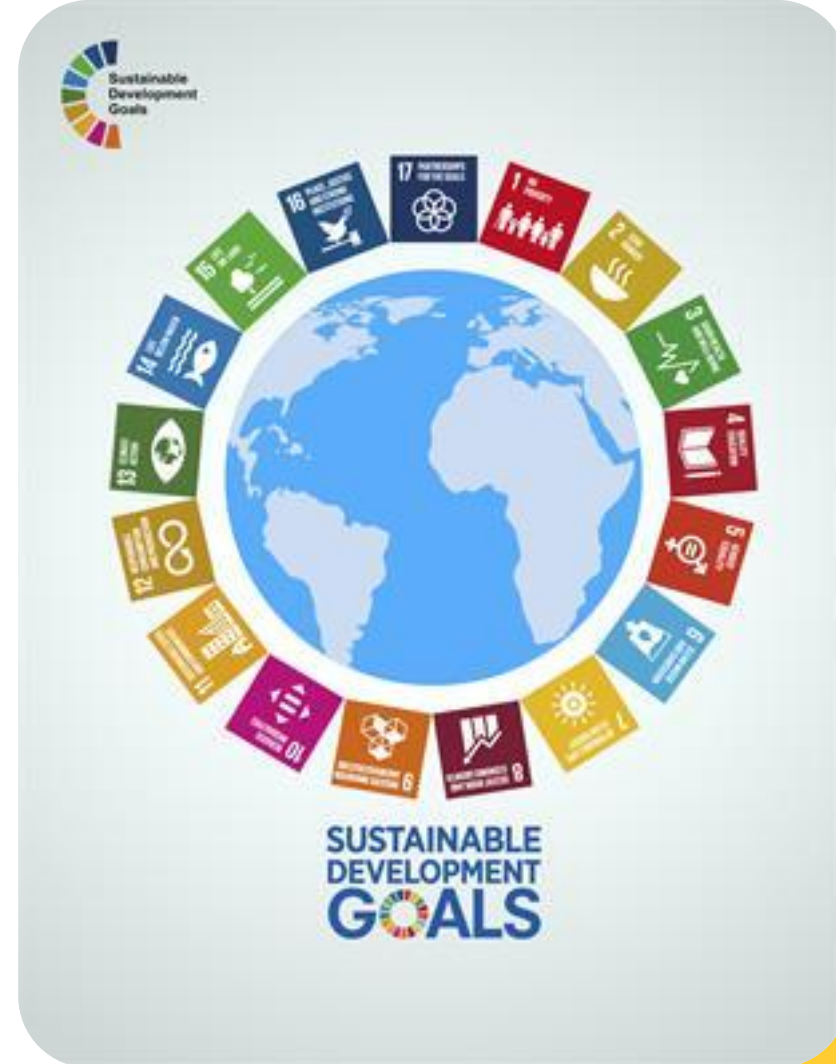
- [Pictures](#)

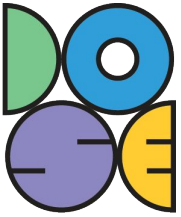
Author: Zita Dzedulionienė, Jurgita Norvilienė

Organisation: [Kauno rajono Šlienavos pagrindinė mokykla](#)

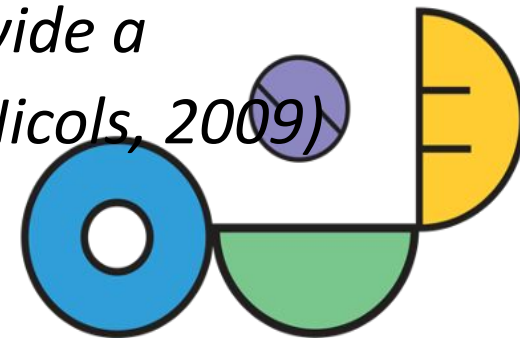


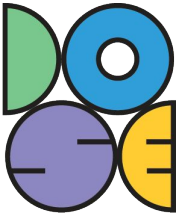
Socio-scientific issues





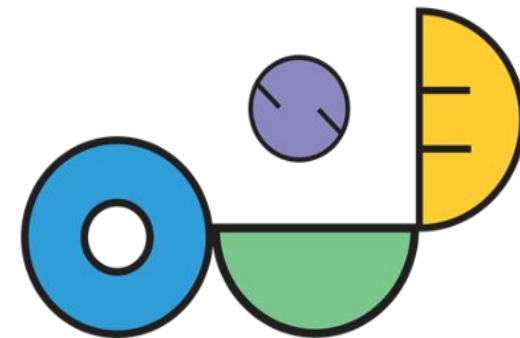
- Socio-scientific issues-based instruction is an active approach to learning, placing science content within a social context in a way that supplies both motivation and the ownership of learning to the student.
- *"Socio-scientific issues involve the deliberate use of scientific topics that require students to engage in dialogue, discussion and debate. They are usually controversial in nature but have the added element of requiring a degree of moral reasoning or the evaluation of ethical concerns in the process of arriving at decisions regarding possible resolution of those issues. The intent is that such issues are personally meaningful and engaging to students, require the use of evidence-based reasoning, and provide a context for understanding scientific information."* (Zeidler and Nicols, 2009)

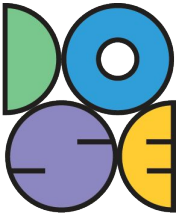




Characteristics of a good issue for classroom use are:

- Illustrates the nature and process of science
- Connection to course objectives
- Related Links
- Teaching Controversial Topics
- Data-supported
- Real rather than fabricated
- Contemporary relevance
- Controversial





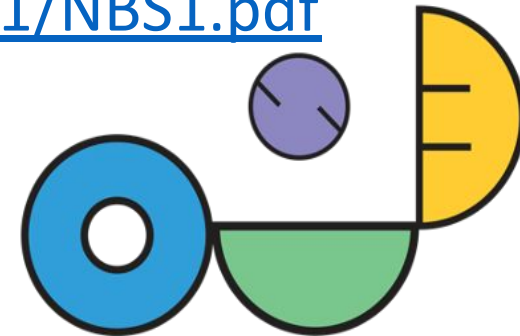
Waste Management of The Food Industry – Hazards, Risks and Solutions

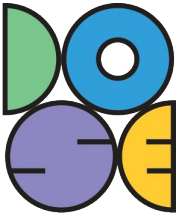
An example

- Students can take action within their daily lives to reduce food waste at school and home and extended communities to make behavioral change.
- In addition, they can also use 21st-century skills such as creativity and innovation to turn an urban challenge, such as food waste, into a solution for their communities' socio-economic development.
- [Integrating Nature-Based Solutions in Education](#)
- <http://steam.jotvingiugimnazija.lt/wp-content/uploads/2020/11/NBS1.pdf>

Aurhor: Irena Ribinskienė

Organisation: Alytaus Jotvingių gimnazija



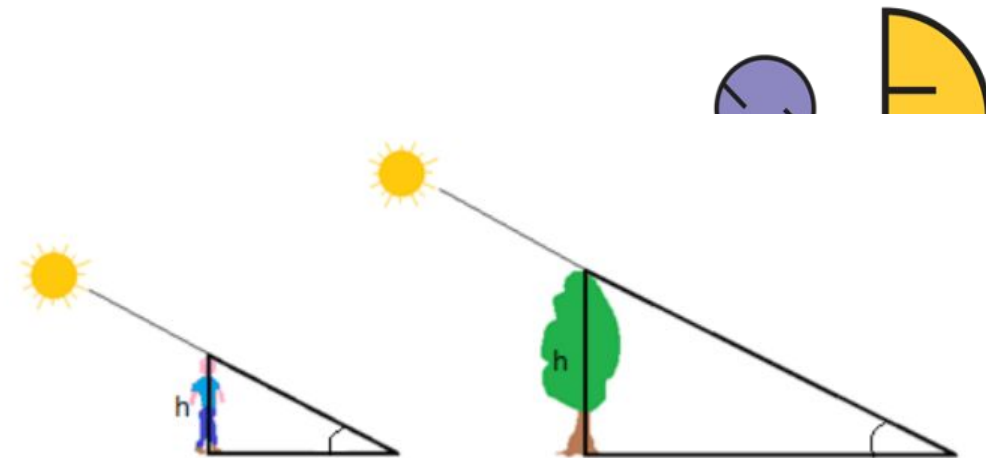


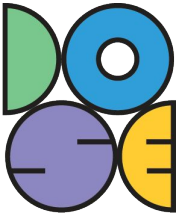
Height measurements of very tall objects

- During the math classes students have already covered the subject of triangle similarity.
- The purpose of this task is to recap the knowledge of section proportions, coefficient of similarity and triangle similarity.
- To calculate this students use their knowledge of geography about scale, remember how a proportion is formed and how unknown variables are calculated.
- [Description](#)

Aurhor: Rytis Koncevičius

Organisation: Kauno Maironio universitetinė gimnazija





Ecological problems



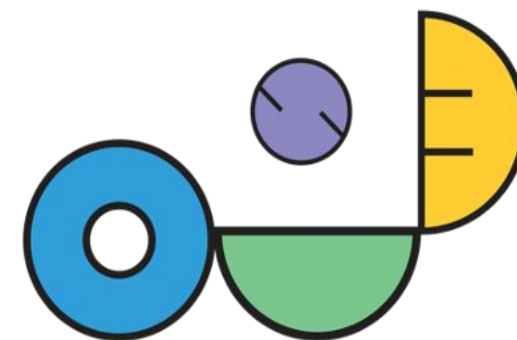
1 piešinys

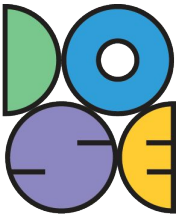


2 piešinys



3 piešinys

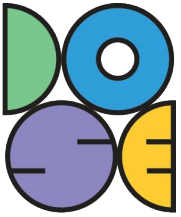




Citizenship

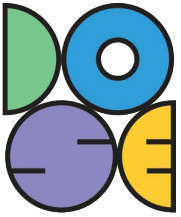
(including informed decision making)





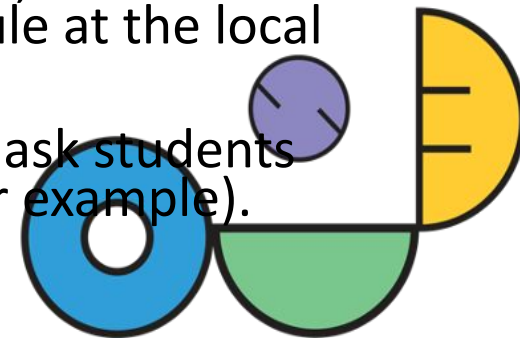
- Citizenship is being formed every day, whether it is the intended focus or not.
- Citizenship is seen in the school colors students wear.
- Citizenship is heard each time a student stands up for themselves. Citizenship is felt every time a student helps another in need.
- But citizenship can be much more!
- Citizenship in education highlights three main goals for our students: that they be well-informed, responsible, and engaged citizens. Scientific habits of mind are essential to being a good citizen.
- STEM actually proves to be a perfect spot: helping shape learners who can think critically, form arguments, and solve problems. These are all essential for the goals of citizenship.

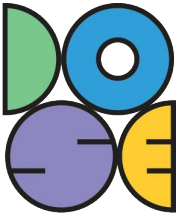




Citizenship traits in STEM classroom

- Well-informed (are up to date with current issues and are able to evaluate problems from all sides).
- Responsibility (being socially /environmentally / or ethically responsible. This is an opportunity to research current issues and hold debates. Should human cloning be legal? What is the best way to get rid of our community's trash?)
- Respectful (to work collaboratively respecting themselves and those around them with and respect the opinions of others).
- Dedicated to Service (bringing service learning into the classroom: look for things that are meaningful to your students, participate in Recycles Day by hosting an event, collect old cell phones as a fundraiser for a local charity, coordinate a volunteer schedule at the local animal shelter).
- Participant (encourage students to join a club or organization at the school, ask students to consider how their club could improve the community's environment, for example).





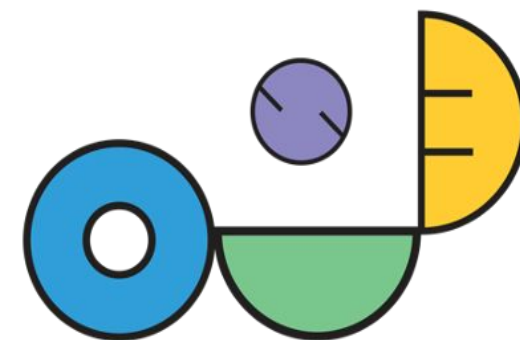
Conference on Human Ecology

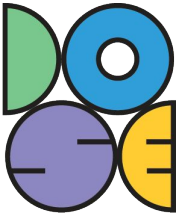
An example

- Methodological practical conference “Human Ecology” was held on the occasion of the Father George Ambrose (Ambrasius) Pabrėža name scholars, teachers, clergy and students.
- Topics:
 - The spirituality of modern man;
 - Human health and environmental issues;
 - Research into the human environment, identifying problems and ways to solve problems;
 - Integration of modern sciences emphasizing problems of human environment changes and quality of life;
 - Environmental research, experiments.
- [Programme](#)

Submitted by: Daiva Bukelytė

Organisation: Siauliai Didzdvario gimnazija



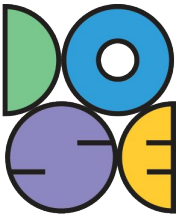


STEAM project week: sustainable consumption

An example

- *Project week for 5-10 grade students was adapted to distance learning. Students analyzed the consumption of electricity, water, paper of our school, researched major ecological disasters, impact of fast fashion, participated in art workshops with sculptors, created social advertisements.*
- [STEAM PROJECT WEEK: Sustainable consumption](#)
- Author: Dalia Trapinskienė
- Organisation: "Pažinimo medis"





Practical work

- Working together in pairs create an lesson plan based on the presented information.
- Share created leeson plan with others and make suggestions for imrovement.
- Disscuss the results.

