



SERVICE-LEARNING FOR DEMOCRACY IN EUROPE

S-L in STEM for Democracy Competencies!



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TODAY'S AGENDA

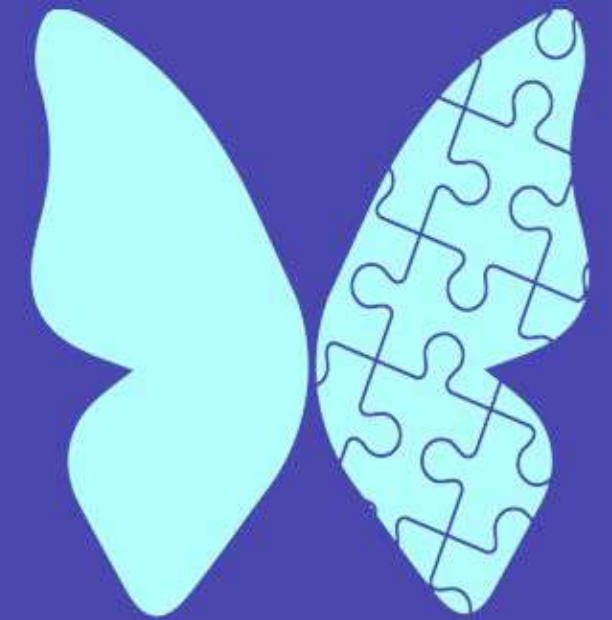
1. **Introduction (objectives for today's session)**
2. **Activity: participants background in STEM**
3. **Let's look at real life examples**
4. **Diving into the content: SL in STEM for Democracy**
5. **Practical exercises (breakout rooms)**
6. **Benefits of integrating STEM and Civic Engagement**
7. **Outlook & Farewell**

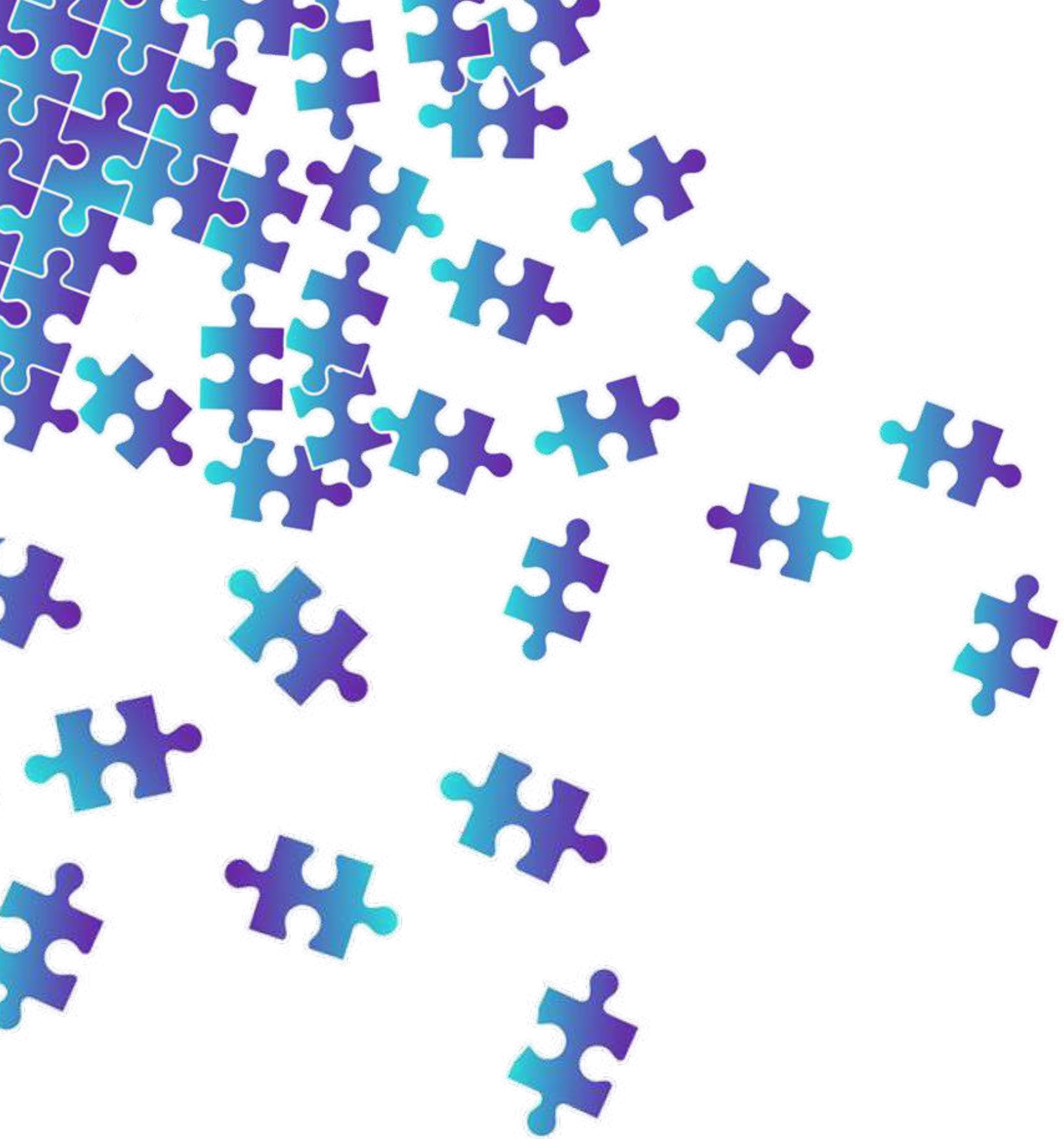


Objectives

- To demonstrate the integration of STEM fields with civic engagement
- To reflect on the Intersection of STEM and Democracy, by recognizing the impact of science-related decisions on civic life.
- To recognize the benefits of integrating STEM and Civic Engagement
- To offer diverse real-life examples of implementing STEM-focused Service-Learning projects from contemporary practice to support the initiation of your own service-learning project

Best wishes for success in utilizing service-learning as a method while teaching STEM subjects!

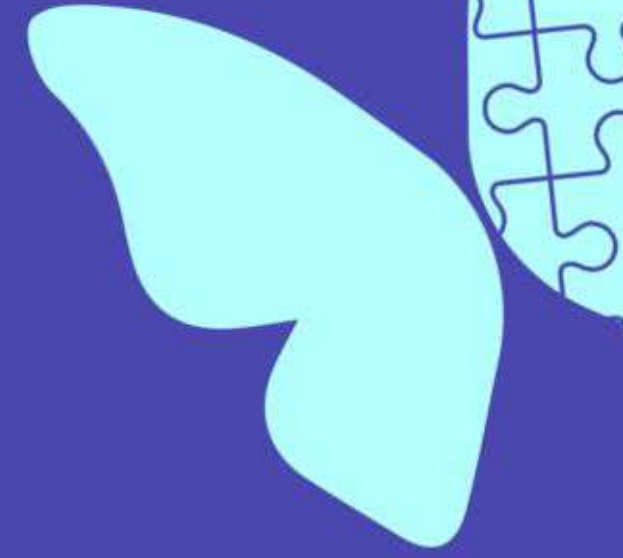




Let's move to Menti!

<https://www.menti.com/alism7tnubrv>

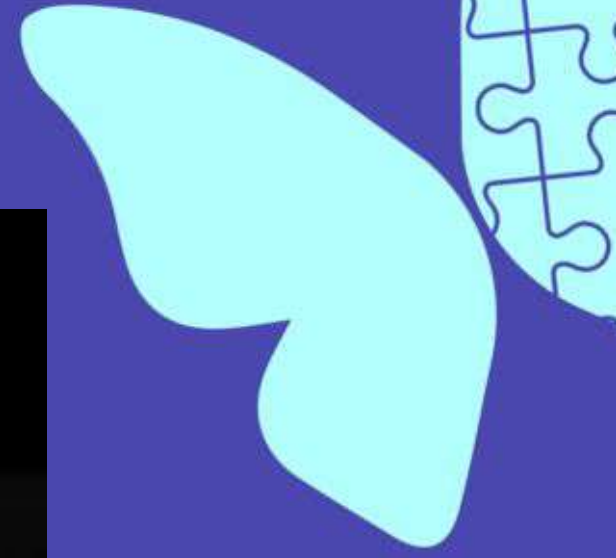
Civic Engagement, STEM and Democracy



Real life examples:

- Light pollution
- Students in Madeira island create a science trail for their community
- Participatory budget at CMP and FGA
- How special are your needs? Can we help? STEAM for an inclusive Europe

Light Pollution



Students in Madeira create a science trail for their community

Real life examples:

Students from Horácio Bento Gouveia school in Madeira have been working hard and they have created an amazing science trail for their community! This science trail brings knowledge and awareness about the history of the island as well as to very important scientific problems such as the plastic pollution in the island, the importance of Bees, waste recycling, periodic table, etc.



Their work was also published on the local newspaper:

<https://funchalnoticias.net/2020/06/03/projeto-idiverse-a-escola-horacio-bento-de-gouveia-inaugura-hoje-o-trilho-da-ciencia/>

<https://idiverse.eu/>.



Participatory budget at CMP and FGA

PARTICIPATORY SCHOOL BUDGETING

Students from secondary education decide what they want to improve at their school. To do this, they need to come up with an idea, gather support and, get the votes of their peers! it's a democratic process that takes place in each school.

- Students submit proposals that relate to inclusion and well-being, with specific actions that foster the inclusion of all



The poster features a red and green background with a white geometric logo of three stacked cubes. The text is in white and red. At the bottom, there is a green bar with the website URL.

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ORÇAMENTO PARTICIPATIVO DAS ESCOLAS
-Inclui

Votação das Propostas
Sexta-feira 22 de março de 2024
Área de Alunos do Piso 0
Alunos do 3º Ciclo e Secundário do Conservatório de Música do Porto

Proposta 1 - Manutenção de Instrumentos

Proposta 2 - Mobiliário de Jardim Exterior
(Mesas de piquenique e Puffs)

www.conservatoriodemusicadoporto.pt

How special are your needs? Can we help? STEAM for an inclusive Europe



Cross-border E+ Project (Belgium, Greece, Italy, Portugal, Slovenia and Sweden)

In Porto, students carried out a study to implement an inclusive route in the city centre. This route is intended to be accessible to wheelchair users and also to enable visually impaired people to find their way around with the aid of GPS, while 3D models are also provided to give a tactile sensory perception of the city's cultural and historical heritage.

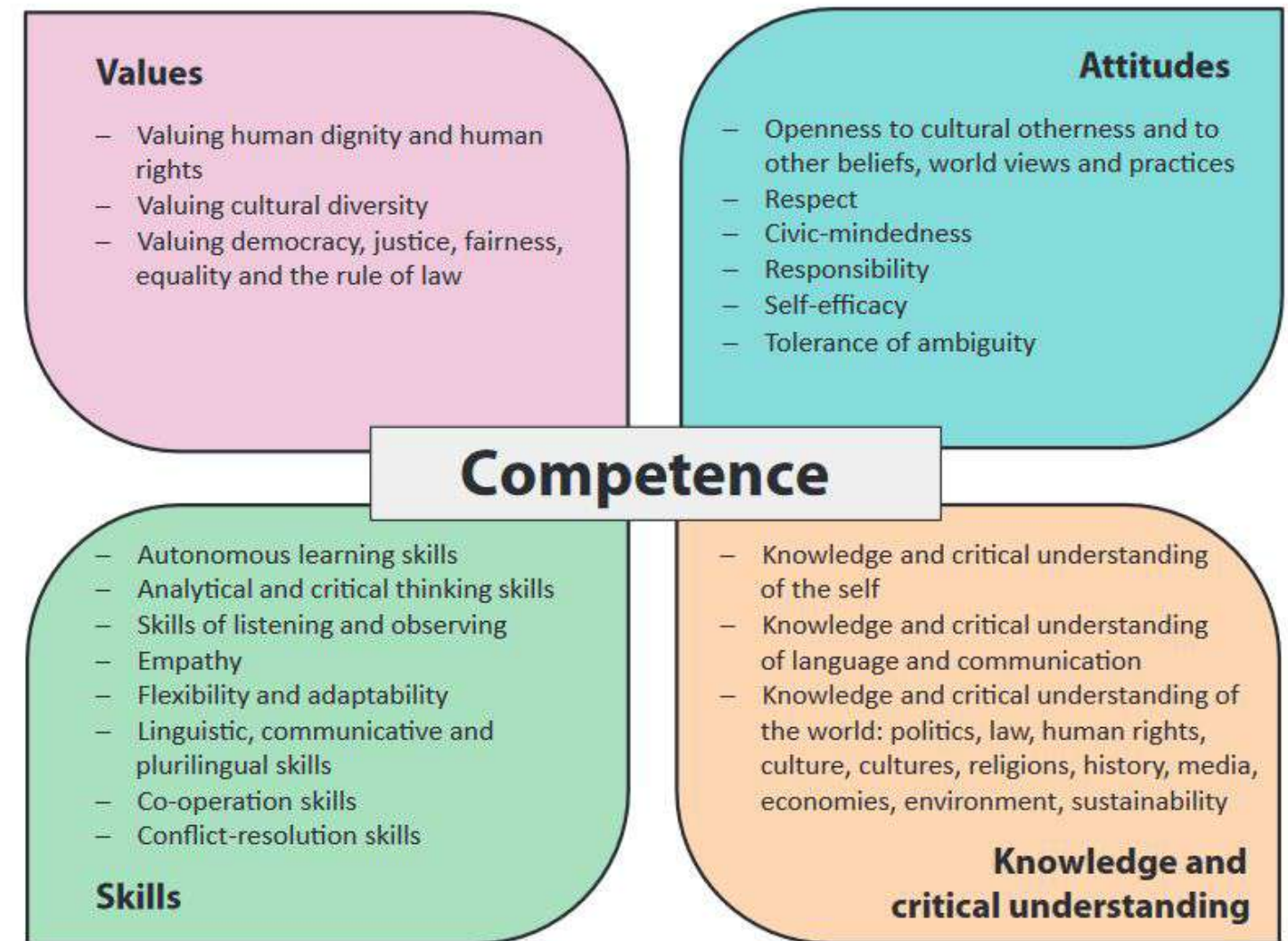


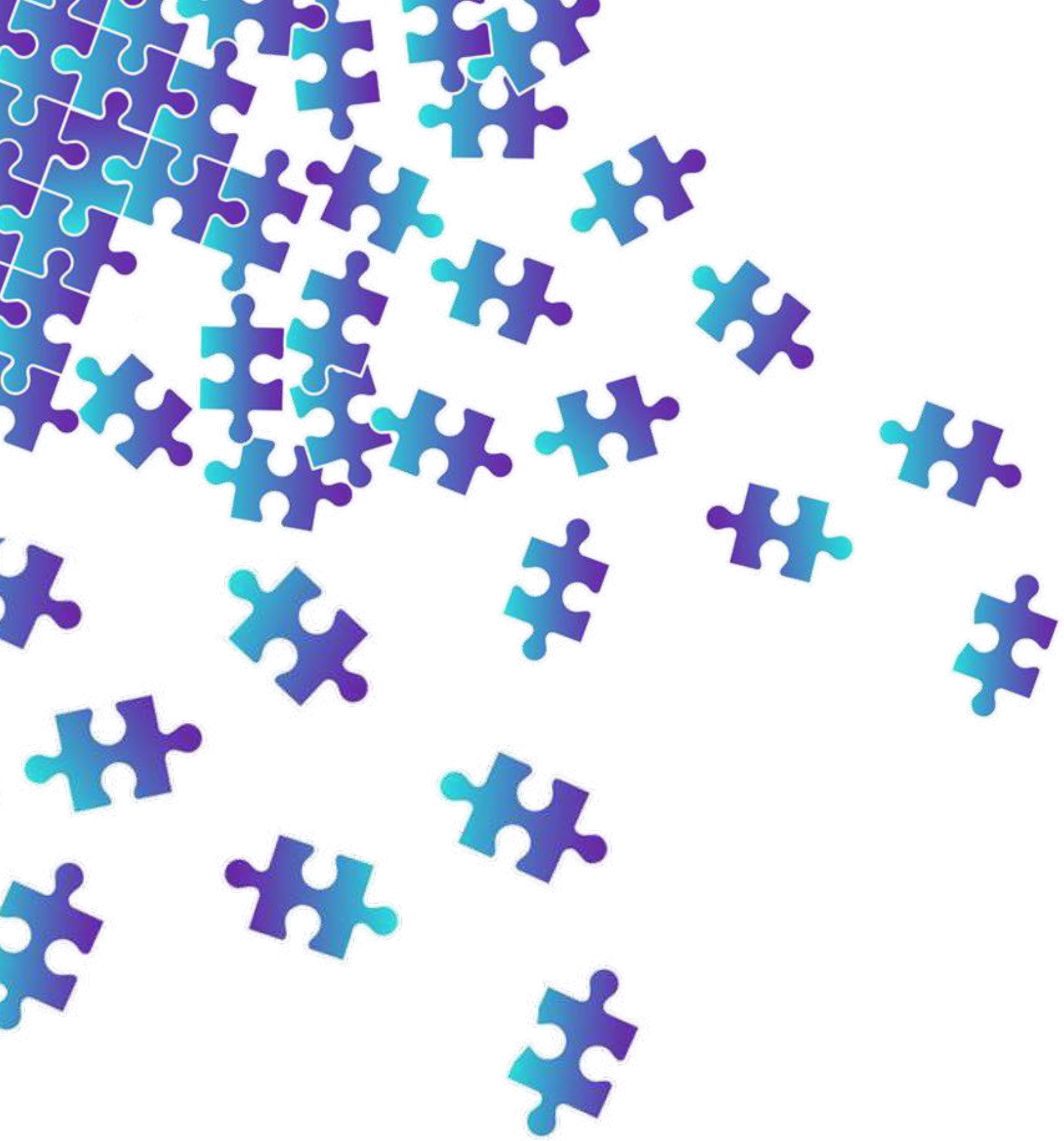
Two of the city's schools were also involved in these activities: one with blind pupils, and another with deaf pupils.

BREAK OUT ROOMS (30 minutes)

• Interactive Activity: Demonstrating the relationship between STEM and democracy

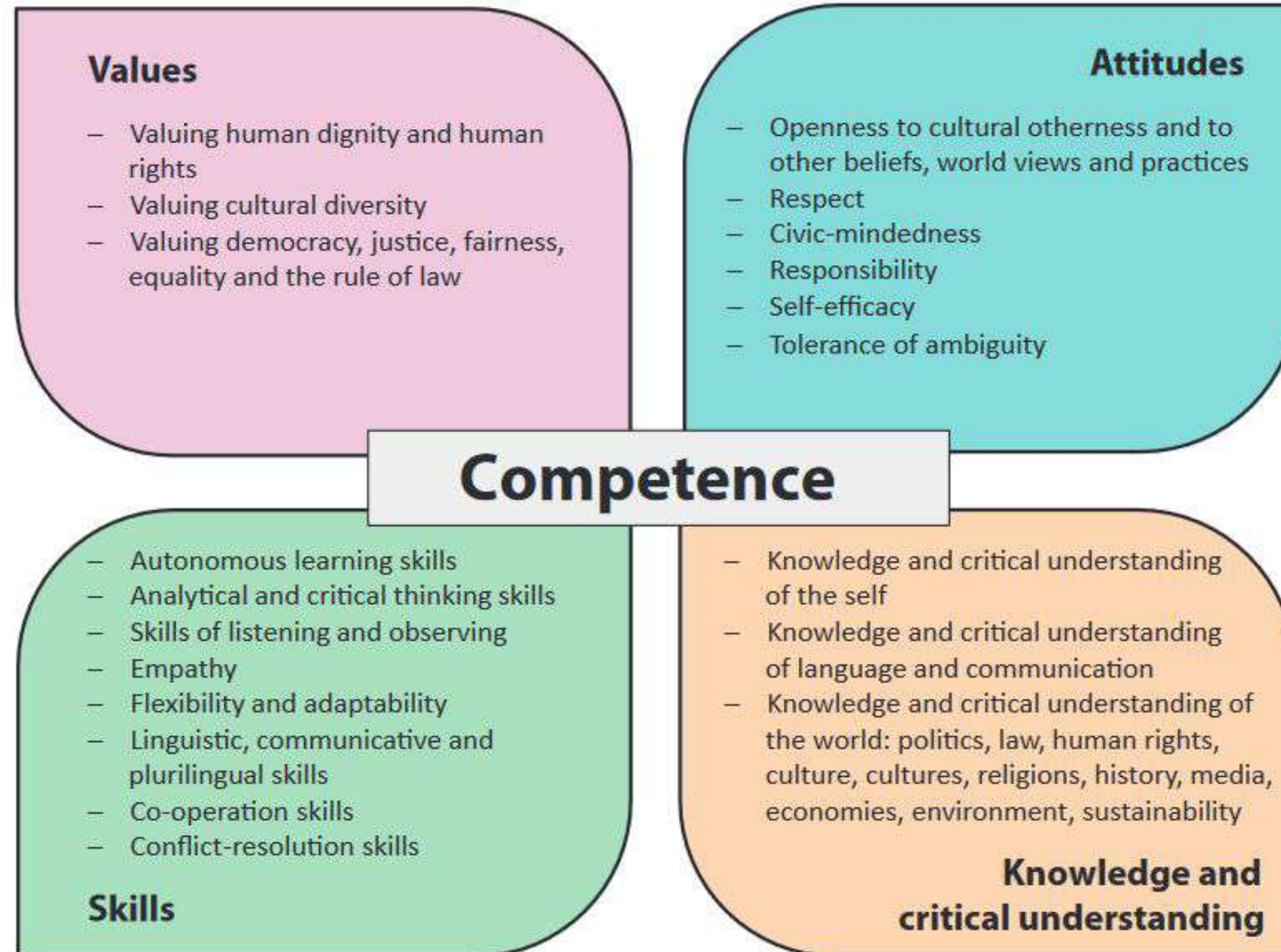
- Step 1- Select one or two topics that you teach in your curricula (thematic area)
- Step 2 - Look at the images on the miro board and sort them by order to create a story with social relevance (use all the images) - collaborative work
- Step 3- Put the sticky note (curriculum topic) on the image you think it is most appropriate
- Step 4 - Look at the butterfly model and identify the democratic competences used in the story.

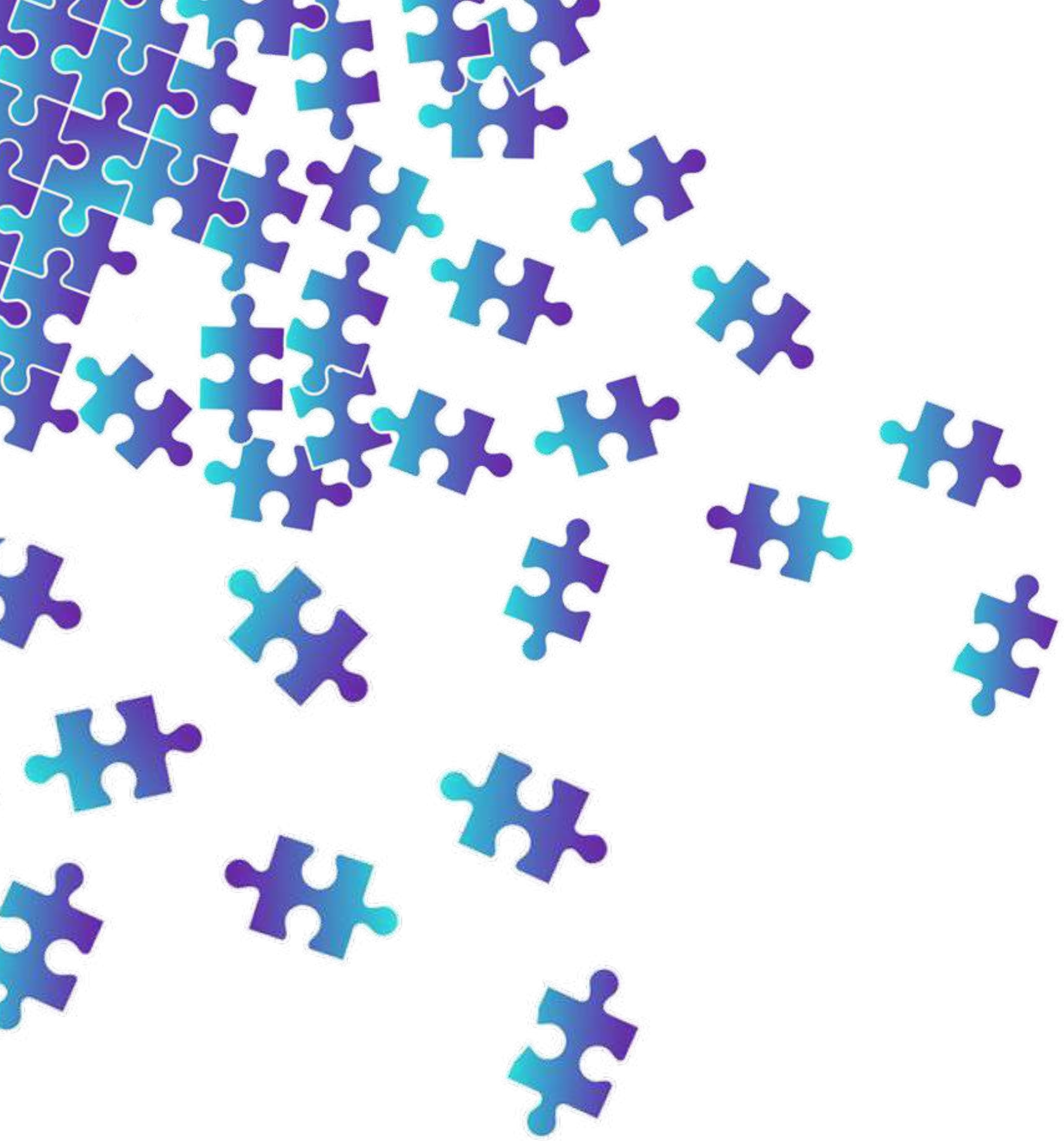




Let's move to Miro!

DEMOCRACY COMPETENCES!

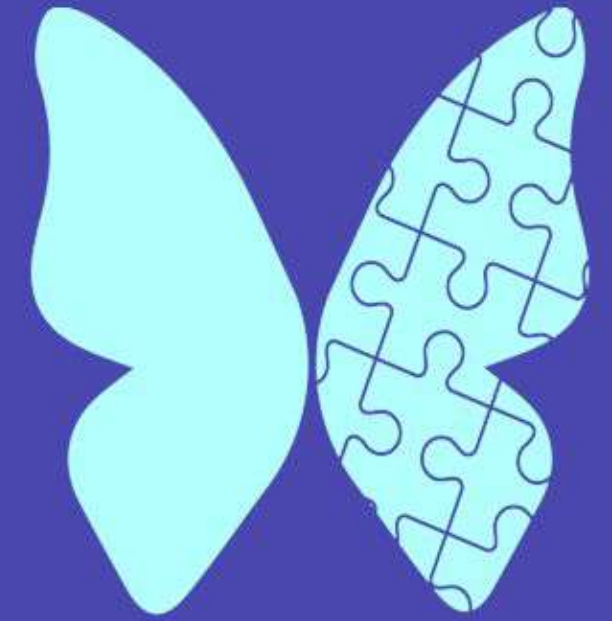




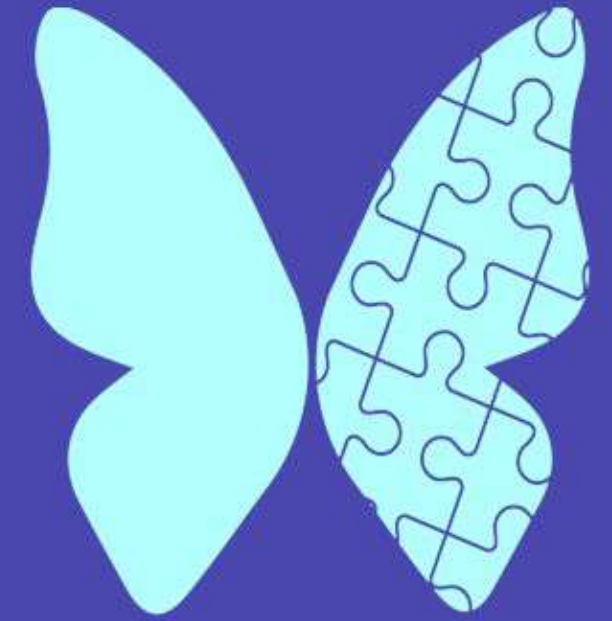
Discussion about the activity

Interdisciplinary Nature of S-L Projects

These are examples where different STEM (and other) subject areas converge in civic engagement initiatives.

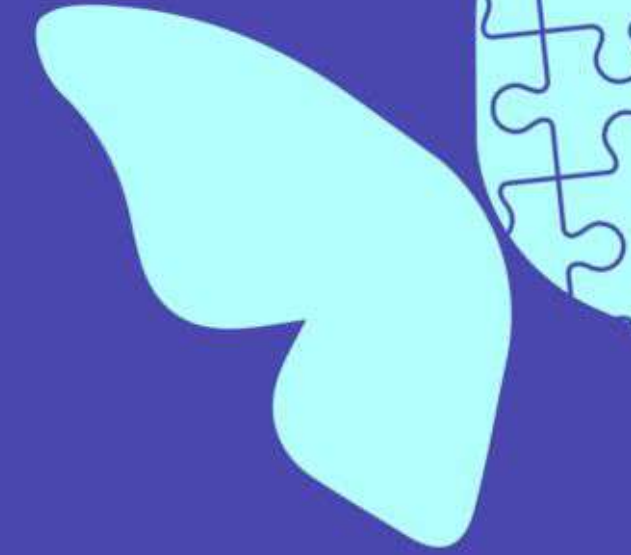


Benefits of Integrating STEM and SL



| | |
|---|--|
| 1 | Raising awareness of the social relevance of STEM subjects |
| 2 | Experiencing values through the practical application of knowledge |
| 3 | Addressing experiences and consciously enabling reflection |
| 4 | Empowering students to guide their own learning |
| 5 | Taking different perspectives through interdisciplinary learning |

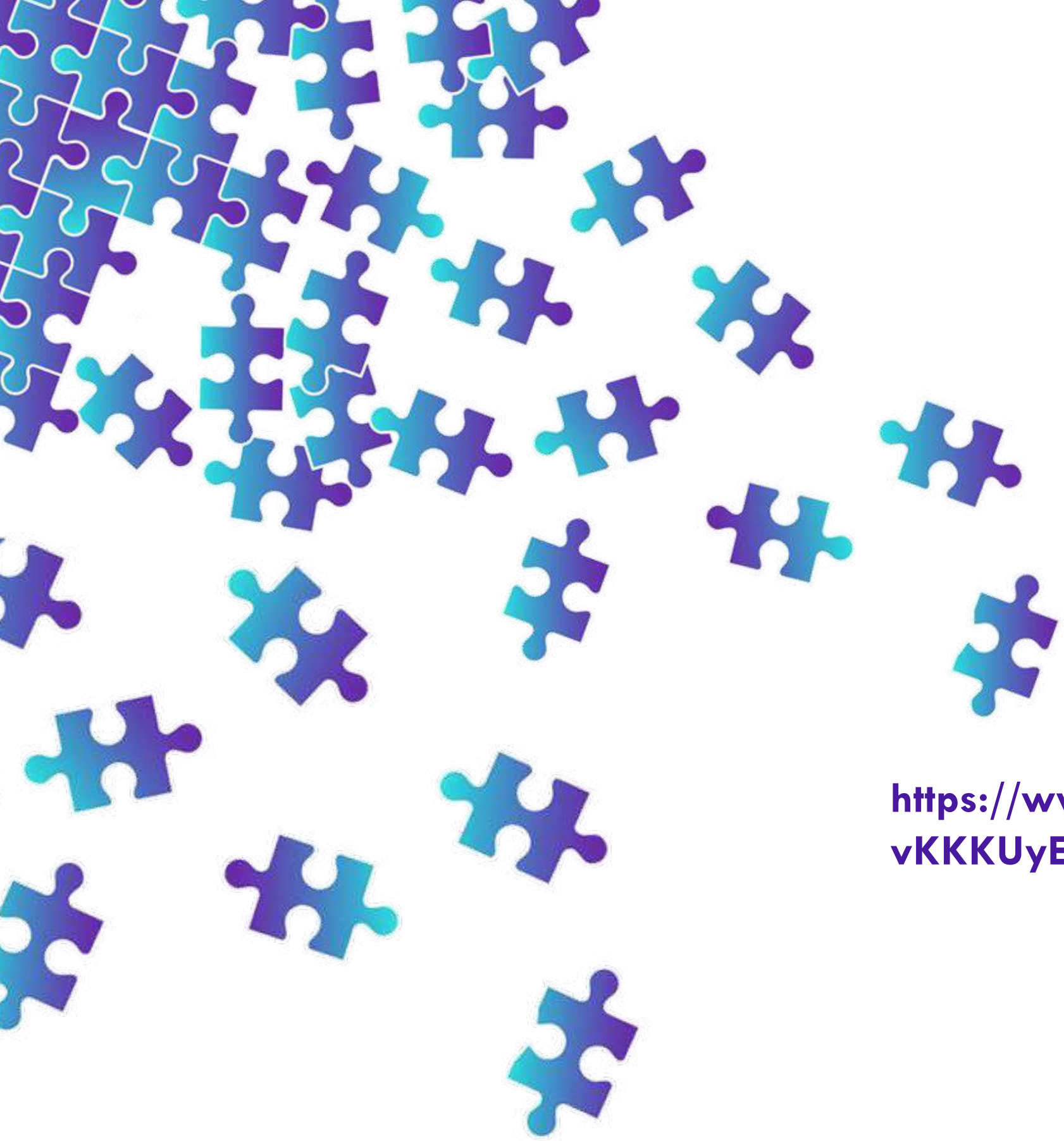
Key concepts on how SL in STEM subjects' impact democratic decision-making



- Encourage values in STEM education
- The use of Service-Learning in STEM subjects can be especially effective in highlighting their real-life social relevance.
- Development of democratic skills
- Students who have taken part in a Service-Learning project show a higher sense of democratic and social responsibility
- Personality development of children and adolescents
- Past experience shows that Service-Learning has primarily positive effects on the personality development and social skills of children and adolescents

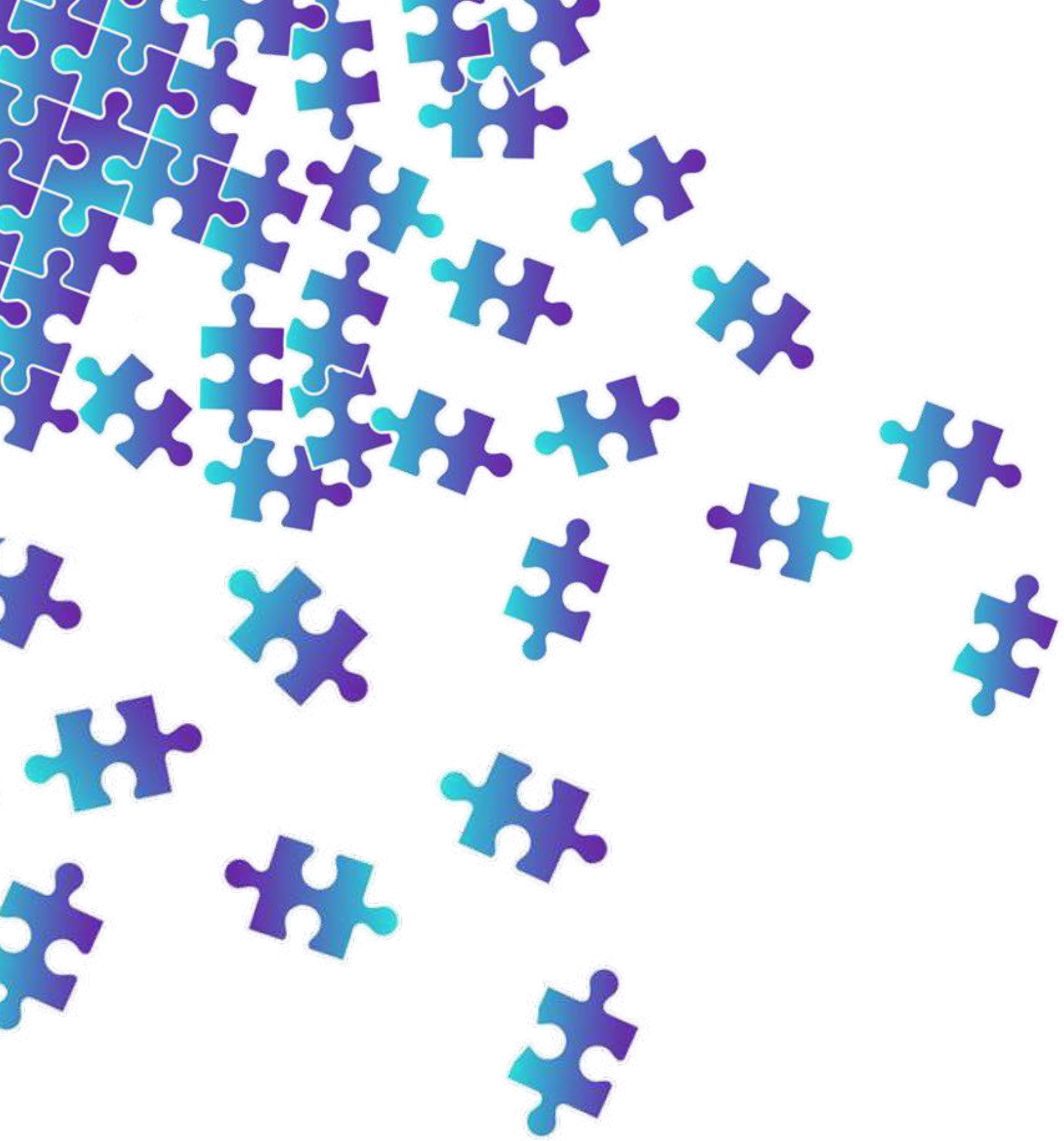


OPEN QUESTIONS?



Your feedback is important!

https://www.surveymonkey.com/r/SLEAD-MARCH27?fbclid=IwAR2csKSat_vKKKUyEVIZ9qASCA1fXBAUN41I8uAfpkLV9qTWP7X3_VZ3a-Y



**SEE YOU ON “NELE”
AND ON April!**