FOCUS ON FUTURE!

RESOURCE KIT FOR DEVELOPING 21ST CENTURY COMPETENCES

Focus on future!

Resource kit for developing 21st century competences

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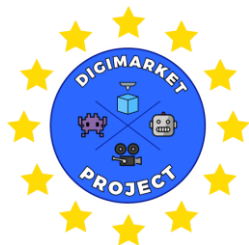
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THE 21ST CENTURY COMPETENCES

Everyone has the right to quality and inclusive education, training and lifelong learning that develops key competences and basic skills. Key competences and basic skills are needed by all for personal fulfilment and development, employability, social inclusion and active citizenship. **Key competences or 21st century competences are the basic set of knowledge, skills and attitudes which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment** (as described in Recommendation 2006/962/EC of the European Parliament and of the Council).

The **European Reference Framework on key competences for lifelong learning** was defined and adopted in 2006.

> The framework identifies eight key competences and transversal themes combining knowledge, skills, and attitudes, all of which are considered as necessary for personal fulfilment and development, active citizenship, social inclusion, and employment.

The key competences are cross-curricular by nature, and are therefore applicable in all subjects and school activities. While no country has made a complete shift to competence-based education, several countries have made significant progress. In addition to introducing legal and curricular frameworks for key competences, some countries have used various strategies to foster a competence-based approach in the classroom.

- Literacy competence,
- Multilingual competence,
- Mathematical competence and competence in science, technology and engineering,
- Digital competence,
- Personal, social and learning to learn competence,
- Citizenship competence,
- Entrepreneurship competence,
- Cultural awareness and expression competence.

TRANSVERSAL SKILLS

The European Commission also identifies the following 'transversal skills' that are relevant across the eight key competences:

- Critical thinking
- Creativity
- Initiative

- Problem solving
- Risk assessment
- Decision taking
- Communication
- Constructive management of feelings.

LIFE SKILLS

The term 'Life Skills' refers to the skills we need to make the most out of life.

Any skill that is useful in our life can be considered a life skill. Tying your shoe laces, swimming, driving a car and using a computer are, for most people, useful life skills. Broadly speaking, the term 'life skills' is usually used for any of the skills needed to deal well and effectively with the challenges of life.

It should therefore be clear that everyone will potentially have a different list of the skills they consider most essential in life, and those that they consider unnecessary. Someone living in a remote rural community might put driving a car high on their list of essential skills. A Londoner or New Yorker, however, would probably rank that pretty low.

There is no definitive list of life skills.

Certain skills may be more or less relevant to people depending on their life circumstances, culture, beliefs, age, geographic location, etc. However, in 1994, the World Health Organization identified six key areas of life skills:

1. Communication and interpersonal skills. This broadly describes the skills needed to get on and work with other people, and particularly to transfer and receive messages either in writing or verbally.
2. Decision-making and problem-solving. This describes the skills required to understand problems, find solutions to them, alone or with others, and then take action to address them.
3. Creative thinking and critical thinking. This describes the ability to think in different and unusual ways about problems, and find new solutions, or generate new ideas, coupled with the ability to assess information carefully and understand its relevance.
4. Self-awareness and empathy, which are two key parts of emotional intelligence. They describe understanding yourself and being able to feel for other people as if their experiences were happening to you.
5. Assertiveness and equanimity, or self-control. These describe the skills needed to stand up for yourself and other people, and remain calm even in the face of considerable provocation.

6. Resilience and ability to cope with problems, which describes the ability to recover from setbacks, and treat them as opportunities to learn, or simply experiences.

WHAT TO DO WITH IT IN SCHOOL?

21st century skills and life skills are increasingly essential. School education must concentrate on those skills especially in the shadow of the fast changing AI environment, when lexical knowledge is given and reachable within seconds. Life skills are therefore even more important, as being able to decide on what and how to use from the huge pool of information becomes a crucial skill.

Technological progress is unstoppable, so the strategy may be to teach students to use it sensibly, efficiently and responsibly. The application should therefore reflect real-life problems and be tailored to the specific groups of learners in each case.

In the following, we share some inspiring ideas that can be applied in an online learning environment, but also in the classroom.

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LINKS, EXTERNAL RESOURCES

1. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG
2. https://www.schooleducationgateway.eu/en/pub/latest/practices/key_competences_for_21st_centu.htm

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3. http://keyconet.eun.org/c/document_library/get_file?uuid=bf5517b8-2fb6-42be-981a-a011ed42a8b2&groupId=11028
4. https://www.schooleducationgateway.eu/europeantoolkitforschools
5. https://apps.who.int/iris/handle/10665/63552

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MINI PROJECT PLANS

1. PLANNING A JOURNEY

AIM OF THE PROJECT

The aim of the exercise is to develop students' planning and organisational skills. It is also important to familiarise students with the forms of public transport available locally, how they work and their prices. The activity can also be extended by learning about leisure activities, booking accommodation and budgeting.

IMPROVED COMPETENCES

- ✓ organizing
- ✓ planning
- ✓ cooperating
- ✓ decision making
- ✓ critical thinking
- ✓ digital literacy

RECOMMENDED AGE

8+

TIMEFRAME

60 – 120 minutes, depending on age and the complexity

TOOLS FOR IMPLEMENTATION

For the exercise, students will need a digital map application, a timetabling application, a spreadsheet application and a calculator.

DESCRIPTION

Groups of 3 are recommended for this exercise.

Each group should choose a destination and travel description from a list provided by the teacher. It is OK if two groups choose the same trip.

The students should find the shortest route (on a map) between the destination and their home and then use a timetable planner to plan the cheapest and fastest way of travelling, which can be anything that is actually available. It is important that students are aware that they can also choose unconventional options (e.g. car-sharing, cycling, walking).

✓ From the options explored, choose the one your group would prefer and plan a budget for it. Depending on the age of the pupils, they can use the teacher's pre-assembled guide, which contains all the necessary information. If the trip lasts more than 3 hours, they can plan for food costs, and if it lasts several days, they can plan for accommodation costs.

There are countless variations that students can come up with, inspire them to be creative and encourage them to come up with unusual solutions.

Make a tableau (presentation, infographic, poster) of the planned trip, its modalities, circumstances and costs, upload it to a shared repository and present it in 3 minutes per team.

2. DIGITAL TIME CAPSULE

AIM OF THE PROJECT

In a fast and hectic world, this small project gives students the opportunity to stop and appreciate their present, the moment they are living in.

IMPROVED COMPETENCES

✓ creativity
✓ cooperation
✓ critical thinking
✓ reflection

RECOMMENDED AGE

6+

TIMEFRAME

45 – 60 minutes, depending on age and the complexity

TOOLS FOR IMPLEMENTATION

The students need presentation software or collaborative platform and internet.

DESCRIPTION

The project should start with a short discussion about what a time capsule is. The project can be implemented with teamwork or as individual assignment.

Students should make their own/group time capsule collecting artifacts that describes their current life. Depending on the age of the students, the time capsule can focus on their close environment (for 6-9 years old) or can involve broader environmental circle even with a complex approach (14+).

The teacher should give them a list of aspects and the students must find an object, picture, short description, article that they feel the most relevant to the items of the list.

They can create a poster, a padlet board, jamboard, presentations, etc. that collects all their artifacts and describes, explains the relevance of those. The class can make an exhibition of the time capsules or if it was an individual assessment, the teacher can use the time capsule to give a retrospective feedback to the student at the end of the educational period.

Recommended list of aspect, that can be modified based on the needs of the group.

- ✓ My favourite game
- ✓ My favourite sport
- ✓ The last sport event I saw recently
- ✓ The music I like to listen nowadays
- ✓ I ate yesterday (at the weekend) this
- ✓ I am struggling with this in school
- ✓ I am happy because
- ✓ It makes me worried
- ✓ The most important thing that happened to me/my family/my school/ my town/ my country / Europe/ the world this year
- ✓ I laughed last time because

3. LETTER FOR MYSELF (FROM THE PAST)

AIM OF THE PROJECT

The project aims to strengthen students' reflective and self-evaluation skills. It is suggested that the project be carried out in individual work, but it can also be carried out in small groups, but then it is more suitable for reinforcing feedback between pupils.

IMPROVED COMPETENCES

- ✓ reflection
- ✓ self-evaluation
- ✓ giving feedback
- ✓ analysing

RECOMMENDED AGE

8+

TIMEFRAME

30 minutes

TOOLS FOR IMPLEMENTATION

Application to compile and edit text.

DESCRIPTION

The exercise is an individual assignment that improves the self-evaluation and the reflective skills of the students.

As a first step in this exercise, students draw a route of their life from their birth until the actual time and indicates the most important milestones of their life, like starting school, moving, brother or sister birth, parents divorce, etc.

The teacher chooses a milestone that is relevant for all the students, that is a common point for them, e.g. the start of the school year or start of the school education. The students indicate that time on their life-map and describes themselves at that point. The teacher can define a couple of factors that help the students to compile the self-description. The recommended focus areas are: the interest and priority of the student, the motivation, the choices that were taken, the challenges they faced, the problems that arose, the environment they lived in, etc.

After they formulated a picture of themselves and can have an image about their own younger version, they write a short letter giving advice, tips to the actual themselves.

4. LETTER TO MYSELF (FROM THE FUTURE)

THE AIM OF THE PROJECT

The project aims to develop students' creativity, critical thinking, self-evaluation and planning skills. The exercise is an individual exercise, where pupils look ahead and dream their own future.

IMPROVED COMPETENCES

- ✓ Design
- ✓ self-assessment
- ✓ creativity
- ✓ critical thinking
- ✓ sense of responsibility

RECOMMENDED AGE

10+

TIME FRAME

45 min

MEANS OF IMPLEMENTATION

Application for compiling and editing text.

DESCRIPTION

It is worth starting the exercise by talking to the students about the stages of human life, the steps and milestones that have the greatest impact on a person's life. The exercise can be combined very well with a discussion of a literary work or the life of a significant person, or even with a discussion of events that have significantly influenced the direction of progress of a larger group or even the world in social, political, economic, environmental or technological terms.

Students first graphically sketch their dream future, focusing on their own achievements and their own goals. They select 1-3 significant milestones in their life path and put themselves in the role of their future self and write a letter to their present self, addressing the following points:

- what I have achieved and why it is significant
- what I had to do to get here
- what has been the biggest challenge on the journey so far
- what advice do I give to my young self
- what has brought you joy on the journey so far

5. COMPLIMENTS

THE AIM OF THE PROJECT

The aim of the exercise is to help students develop their emotional intelligence and how to acknowledge and praise others in an appropriate way, content and form. The exercise also confronts learners with how to receive, handle and appreciate praise when they receive it.

IMPROVED COMPETENCES

- ✓ communications
- ✓ taking responsibility
- ✓ self-assessment
- ✓ reflection

RECOMMENDED AGE

6+

TIME FRAME

60 minutes

MEANS OF IMPLEMENTATION

A tool for recording text offline or online.

DESCRIPTION

The exercise starts by forming groups of 4. It is worth considering the group dynamics between the pupils when forming the group, and the exercise is most effective when pupils who are not best friends are placed in a group. However, care should be taken to ensure that no pupil within the group is an outsider, that everyone has a peer in the group that they trust.

Then, according to the age of the pupils, initiate a discussion about the differences between our inner and outer qualities and the results of our efforts. It is important that students understand that the value of our achievements is also determined by our circumstances.

Students begin by describing what they are most proud of about themselves and their own achievements, what they consider positive, beautiful and worthy of appreciation. This should not be shared with others.

Within a group, each student should write 3 things about each of their three peers that they think are worth appreciating and positive, and put them into a complete sentence, expressing how they feel this affects them.

 E.g. "sings beautifully" instead of "It always gives me pleasure when I hear you sing beautifully".

In the meantime, the teacher should monitor and, if necessary, support the pupils' work.

Then, in small groups, the pupils tell each other the appreciation sentences. When the group is at the right emotional level, they are asked separately to look each other in the eye while praising the other.

Once everyone has heard all the praise, thank them and tell them how it made them feel to receive it.

Finally, involve the whole class and discuss with the students how they felt during the exercise.

6. IF IT WERE ME…

THE AIM OF THE PROJECT

The aim of the project is to develop empathy and creativity, to help students broaden their horizons and to enable them to see events and their place in the world from a different perspective.

IMPROVED COMPETENCES

- ✓ creativity
- ✓ critical thinking
- ✓ analytical thinking
- ✓ problem solving

RECOMMENDED AGE

6+

TIME FRAME

30 min /45 min/

MEANS OF IMPLEMENTATION

An application (such as paint or canva) that can be used to create a digital image

DESCRIPTION

The exercise can be carried out individually or in a small group. In a group implementation, plan for a longer implementation period.

The project can be very well combined with, but not limited to, science, art or history.

The pupils choose a utensil, a living creature, a figure in a painting, a historical figure from the past, and dress up as it. Depending on the age of the pupils and the possible combined subject area, this process can be supported by compiling a list of possible objects. The pupils are asked to draw a picture of the object in the middle of the sheet/screen and, dividing the sheet into four quarters, to write in each quarter that it is the object/person:

- how do you feel in your everyday life?
- what goals do you set for yourself?
- what are you afraid of, why are you worried?
- what are your hopes for the future?

If the task involves pupils personifying inanimate objects, it is primarily a way of developing their creativity. If they are personifying real historical figures from the past, it is recommended that the task

be planned as a longer-term, possibly home-based, independent task, during which pupils search for and develop resources to develop the personification.

I feel myself

These are my goals

My hopes

I'm afraid of

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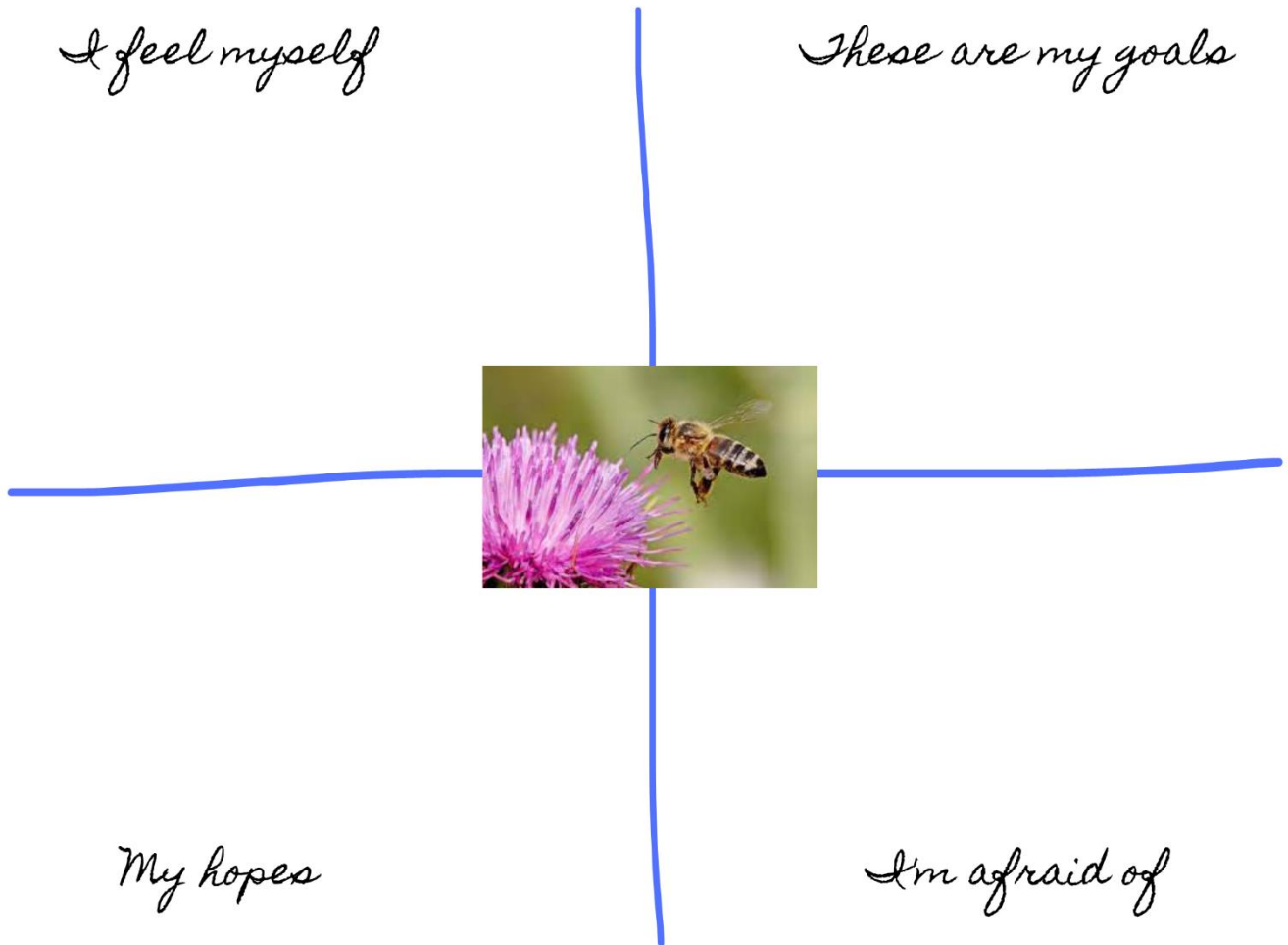
7. MY SUPERHERO

THE AIM OF THE PROJECT

The aim of the exercise is for students to reflect on the problems of themselves and their environment, and to formulate specific skills that can help them to successfully shape their future, solve local and global problems

IMPROVED COMPETENCES

- ✓ Design
- ✓ creativity
- ✓ problem solving
- ✓ social sensitivity

RECOMMENDED AGE

8+

TIME FRAME

60-90 minutes

MEANS OF IMPLEMENTATION

Digital graphics application

DESCRIPTION

As an introduction to the exercise, start a discussion about imaginary, fairytale, mythological or contemporary superheroes. What are their characteristics and backgrounds? What do they gain and what do they lose in the course of their story? What is their purpose?

The task can be carried out individually or in small groups, the former to help students develop their self-evaluation skills, the latter to focus on cooperation skills. When working in a group, it is important to develop a shared opinion.

Ask students to identify the problems in their current lives and in their immediate and distant surroundings that they think a superhero would be needed to solve. We can guide this process according to the age and abilities of the pupils, for example by choosing between the Sustainable Development Goals.

https://unis.unvienna.org/unis/en/topics/sustainable_development_goals.html

They then draw and design their superhero who can solve the problem they have highlighted.

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Develop the character according to the following criteria:

- name, history, background
- special skills
- tools you use
- helpers who support
- main objective, motivation
- weak point

Exhibit your superheroes online or in your school building or classroom, show off your heroes to your peers.

8. THE TREE OF EMOTIONS

THE AIM OF THE PROJECT

The project is well suited to ensure the emotional development of students and to help them manage conflicts and acceptance within the community.

IMPROVED COMPETENCES

- ✓ communications
- ✓ problem solving
- ✓ self-awareness
- ✓ empathy

RECOMMENDED AGE

8+

TIME FRAME

30 minutes

MEANS OF IMPLEMENTATION

An application to create a mind map, offline solution with large paper, post-it notes, markers.

DESCRIPTION

The project is recommended for group implementation, as it is based on active, joint creation, joint discussion and sketching of emotions. However, there may be unhealthy processes in the learning group that do not provide an adequate level of trust, in which case it can be implemented in groups of 10-12 people with teacher facilitation or in small groups, or perhaps independently as individual work.

In each case, the starting point is a conflict, defined according to what the learners are most concerned about. This conflict is the root of the tree, from which the strongest, primary emotions form the trunk of the tree. Each emotion generates new emotions that lead to new conflicts and, less often, to new solutions. Let's dismantle this tree in discussion with the students, making sure that each student involved expresses his or her thoughts.

When the tree is ready, discuss with the students the points where emotions and conflicts should be addressed through some kind of conscious intervention. The result is a good starting point for working with the learning group and managing conflicts within the group.
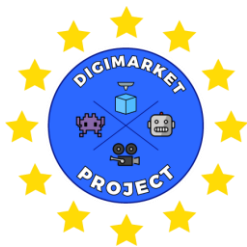
9. DINNER OF MY DREAMS

THE AIM OF THE PROJECT

The aim of the project is to develop students' planning and organisation skills, information processing and problem-solving abilities by collecting relevant information from different sources and processing it according to the objectives.

IMPROVED COMPETENCES

- ✓ information management
- ✓ critical thinking
- ✓ Design
- ✓ creativity

RECOMMENDED AGE

10+

TIME FRAME

120 min

MEANS OF IMPLEMENTATION

Software for creating spreadsheets or infographics, internet access and browsing capabilities

DESCRIPTION

The project is for groups of 3 people to plan a dinner party where they invite and host 3 people they know. During the planning process, they have to decide what the purpose of the dinner is, what the guests will talk about, what they will eat, what they will be entertained with in the background, where the dinner will take place. All this should take into account historical, cultural and linguistic barriers.

It is suggested to set up a set of rules to determine the guests, for example, one imaginary person and 2 real historical figures, at least one of them should be a woman, one of them should be someone who has achieved something truly significant in the history of mankind, all of them should be of a different nationality, etc.

Ask students to research the person and decide on the details of the dinner.

An additional task is to identify 1-1 question for each of the three participants that they would like to know and that has been hidden in their life path.
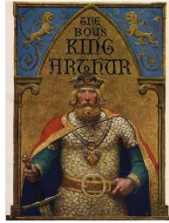
10.   FREE VERSE

THE AIM OF THE PROJECT

The exercise allows students to be creative and explore the freedom to create stories and poems.

IMPROVED COMPETENCES

- ✓ creativity
- ✓ Reading comprehension
- ✓ communications

RECOMMENDED AGE

8+

TIME FRAME

30 minutes

MEANS OF IMPLEMENTATION

In case of online implementation, a platform for collaborative work (e.g. jamboard, canva), in case of classroom work, paper, scissors.

DESCRIPTION

The exercise is proposed to be carried out in pairs or small groups. In preparation for the task, the teacher should choose a poem or prose text, a newspaper article of 200-300 words. Break the text into words and then blend the words. The students can work on the online interface or on paper prepared in this way. If working offline in a classroom environment, hand the words to the learners in an envelope. The pupils' task is to create their own poem from the words and then present it to the others. If the pupils recognise the original poem, they should not recreate it, but let their own creativity guide them. Use every word in the creation.

11.   BULLET JOURNAL

THE AIM OF THE PROJECT

During the exercise, pupils keep a diary as a regular activity, which develops their time management skills, as well as their sense of responsibility and accountability.

IMPROVED COMPETENCES

- ✓ time management
- ✓ organisation
- ✓ communications
- ✓ reflection

RECOMMENDED AGE

10+

TIME FRAME

Continuous implementation, 20 minutes per session

MEANS OF IMPLEMENTATION

Online diary writing platform, shared document.

DESCRIPTION

The project should be carried out continuously throughout the school year. It is recommended to do it 1-2 times a week, preferably at the beginning or end of the day, always scheduled at the same time, in small groups.

The pupils are asked to write a bullet journal in which they record what has happened, their goals and plan their tasks for the coming days.

At the start of the project, introduce students to the methodology of reflective journaling, talk to them about how they can manage their own learning and other tasks independently and how their ongoing activity of keeping a list of their activities can help them.

Have the students form groups of 3 or pairs and create a digital platform of diary writing for the first time. There are a number of solutions for this, such as the bookcreator app or other collaborative working platforms.

Decide which weekly sessions you will have to prepare your entries together.

Entries can be creatively illustrated, but it is important that their content is clear and traceable, and that they are the joint work of students working together, including both individual and shared elements.

Suggested areas for learners to cover in the quick logging list:

- timetable, school and extracurricular activities
- homework, project work, deadlines
- holidays
- physical activity, healthy eating

Set targets in each area and monitor whether they are met by the deadline. For example, they could set a target to read for half an hour every day, or to drink only water, not eat sweets, etc.

An important part of the project is to continuously reflect on their own performance and give feedback on each other's activities in the following 3 dimensions.

1. feed-back: feedback on what has been done, accomplished
2. feed-up: assessment of the current state
3. feed-forward: identifying the tasks needed to achieve future goals

The teacher's follow-up role in this project is to help students to continue if they get stuck. A joint discussion is recommended every 6-8 weeks to allow students to evaluate the impact of the method and share their experiences.

12.   GROW A PLANT

THE AIM OF THE PROJECT

The aim of the project is to strengthen the students' sense of responsibility and duty by making them regularly take care of a living organisation and making its development and demise their sole responsibility.

IMPROVED COMPETENCES

- ✓ awareness
- ✓ taking responsibility
- ✓ organisation

RECOMMENDED AGE

6+

TIME FRAME

Continuous implementation, 5 minutes per day

MEANS OF IMPLEMENTATION

Small ornamental plants or pots and flower seeds, growing media, according to the number of children in the class.

DESCRIPTION

For this exercise, pair up the pupils in the class. The teacher should obtain a number of small ornamental plant seedlings corresponding to the number of pairs, which do not have special, very specific needs and can cope well with different conditions. Alternatively, you can buy pots, potting soil and flower seeds and start caring for the plants as soon as the seeds are planted.

Keep all ornamental plants in the classroom for face-to-face teaching, but if this is not possible or if you are working in an online teaching environment, provide students with a starter kit.

During the introductory session, students will independently gather information about the care and needs of the plant. For younger pupils, the teacher can also prepare a short description of what to do with the plant beforehand, which is discussed together.

The challenge is simple but great: which pair of plants will be the most beautiful and the biggest for the school year or the designated end of term? All activities must be done by the students, without any reminders or support. To monitor the task with the teacher, ask for weekly photos of the plant blues.

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If the plants are cared for by the pupils at home, set a regular rotation when the plant is moved to another member of the pair.