TECHNOLOGY IN ACTION, THE ROAD TO INCLUSION. UT

FINAL PROJECT: A poster that calls for a more inclusive school - a school for all, illustrating one of the following principles for reinventing schools: emotional education, multiple intelligences, IT, architectural redesign of the classroom/school and diversity.

For this specific unit we ask for the following:

A poster that calls for more inclusive schools - a school for all - that uses technology to support the inclusion of all students.

1. RAISING AWARENESS /MOTIVATION

GENERAL OBJECTIVES	Promote opportunities to enhance those intelligences in which each student shows greater abilities. Encourage visual thinking as a means of expressing ideas and feelings with drawings; working on creativity; reinforcing verbal thinking by addressing formats other than linguistic ones. Encourage the development of effective, critical and creative thinking. Involve students in the processes of research and problem solving. Encourage the use of information and communication technology (ICT) as a teaching resource for the teacher, and as a means for students to explore their potential to learn, communicate and offer their own contributions and creations using different languages. Empower students to become involved in creating a school for all. Develop life skills for personal and social wellbeing from a proactive perspective, improving interpersonal relations.
COMPETENCES	Linguistic communication Basic competence in science and technology Digital competence Learning to learn Social and civic competencies Sense of initiative and entrepreneurial spirit
CURRICULAR AREAS	Spanish Language and Literature
DURATION	Two sessions
MATERIALS	Text: Imagine Computer with internet connection and speakers Text image Thinker's Key - "Prediction" Thinking routine: "I see, I think, I wonder" Post-it notes (optional)

The activity revolves around the video of Maria and Me by Miguel Gallardo, which you can watch via the following link http://rtve.es/v/1210260. In the film, Miguel Gallardo shows the relationship with his daughter Maria, a girl with autism. There is also a book on this video - an album illustrated by the author himself and edited by Astiberri.

Based on this story, a documentary feature film directed by Félix Fernández de Castro was made in 2010. The director wrote the script based on the original written story. You can watch it at http://rtve.es/v/2060907.

Older children can do this exercise using Belén Jurado's Imagine text, which is attached in the Appendix. The author is mother to a girl with autism.

You can also listen to a recording of this text, featuring the voice of Coral Elizondo at https://soundcloud.com/coral-elizondo-937444702/la-habitacion-de-lucia

FIRST SESSION

Facilitate a discussion that elicits what students saw and heard.

Discussion groups foster interactive exchanges that allow students to learn together, learn from each other and learn with others. These interactions, which are based on equal exchange and respect, also create a good emotional climate and enable empathy to be developed.

Before watching the video

The group discuss the title. As part of this, we suggest you use the Thinker's Key "Prediction" and ask the class to predict: What will they be talking about in this video? What characters will it feature? What will they do? What will they be like?

While they are watching the video

Explain to students that they will be watching a video and that there will then be a discussion about it. Explain that it mainly involves talking about what they have seen, what most drew their most attention and why, what they most agree with and why, what they most liked and why...

It is worth considering showing the video twice - maybe with students taking no notes during the first viewing, and then having them write down anything they want to share in the group discussion during the second viewing.

After watching the video

For the group discussion, students sit in a circle, so that they can see each other's faces. The person who plays the role of facilitator (generally, the teacher) reminds the class of some basic rules: respect others' turn to speak, respect everyone's opinions, everyone will have the opportunity to speak, and everyone must listen.

The discussion starts either with whichever student wants to go first - in which case the facilitator lists the order of the names of the students who are going to speak. Or start by randomly picking a student and then go clockwise round the group.

More detailed guidelines for facilitating the group discussion can be found in the Appendix.

SECOND SESSION.

In this second session which is aimed at raising awareness, they work from the image of the text *Imagine* text or from the image of the cover of the book *Maria and Me*, and use the thinking routine "I see, I think, I wonder", which you'll find in the Appendix. This thinking routine is photocopied for individual work and also drawn onto a roll of continuous paper in order to capture all students' answers. The class is divided into groups of four and the "1-2-4" cooperative technique is used.

To start with, they work individually (1) writing on the form for the routine "what I see, what I think and what I wonder" as they look at the image. They then reflect on this together with the class mate next to them (2) and add any new observations onto the form. Lastly, they share the work among all four group members (4) and look for any unique thoughts and observations which they write onto Post-it notes.

When all the groups have finished their discussions, all the ideas are put together and are included on the thinking-routine organiser that had previously been drawn on the roll of continuous paper. If their thoughts are already written on Post-it notes, they stick those on to the paper; and if not, they are written down. The teacher facilitates the session and the spokespersons for each group take it in turns to read out their thoughts and either write them down or stick them onto the thinking-routine organiser.

Once everyone has finished and all the groups have shared their thoughts, they put together their joint thoughts and reflections for all the groups combined together and then propose ideas about how this girl can be helped: what can we do to help her? All these ideas are written on the board for working on later.

2. VIDEO. TECHNOLOGY CAN HELP US

This helps to introduce the theory behind the topic.

VIDEO: Childhood and technology. With great tact https://youtu.be/SWHIg-1X-_s

After watching the internet video, which explains the theoretical framework in simple terms, you start the Kahoot game - the aim of which is to bring gamification into the classroom and learn by having fun. This non-mandatory option is offered as a supplementary resource and can be found via this LINK.

3. ACTIVITY: IT'S IN MY HANDS

GENERAL OBJECTIVES	Promote opportunities to enhance those intelligences in which each student shows greater abilities.
	Encourage visual thinking as a means of expressing ideas and feelings with drawings; working on creativity; reinforcing verbal thinking by addressing formats other than linguistic ones.
	Encourage the development of effective, critical and creative thinking.
	Develop life skills for personal and social wellbeing from a proactive perspective, improving interpersonal relations.
COMPETENCES	Linguistic communication
	Social and civic competences

CURRICULAR AREAS	Spanish Language and Literature Artistic education
DURATION	One session
MATERIALS	Sheets of paper Drawing Materials

This activity starts by going back to the proposals that the students made in response to the question: what can we do to help that girl?

The aim of this exercise is to encourage visual thinking. Therefore images are put alongside the written ideas. Teachers should emphasise the importance of visual language as a means of expressing ideas and the way that images can help people understand the world.

Working individually, they draw their commitment to help onto a sheet of paper that is then placed in a visible place in the classroom.

4. ACTIVITY: PICTOGRAMS

GENERAL OBJECTIVES	Encourage critical thinking and personal initiative, in developing both individual and team working habits. Promote opportunities to enhance those intelligences in which each student shows greater abilities. Encourage visual thinking as a means of expressing ideas and feelings with drawings; working on creativity; reinforcing verbal thinking by addressing formats other than linguistic ones. Encourage the development of effective, critical and creative thinking. Encourage the use of information and communication technology (ICT) as a teaching resource for the teacher, and as a means for students to explore their potential to learn, communicate and offer their own contributions and creations using different languages. Empower students to become involved in creating a school for all. Develop life skills for personal and social wellbeing from a proactive perspective, improving interpersonal relations.
COMPETENCES	Linguistic communication Mathematical competence and basic competence in science and technology Learning to learn Social and civic competences Sense of initiative and entrepreneurial spirit
CURRICULAR AREAS	Spanish Language and Literature Artistic education

DURATION	One session
MATERIALS	Computer with/without internet connection

This activity is also related to previous exercises. The group will have already talked about the girl's difficulties in talking, understanding and communicating with others. They will have already heard about the importance of drawings as a way of expressing ideas and feelings. And the purpose of this exercise is to use technology to help communicate with drawings. For this, there are two options: either they can use the computer application AraWord, previously downloaded onto the computers, or they can work online on the ARASAAC website.

Option 1. AraWord computer application

AraWord is a word processor that allows simultaneous writing of text and drawing of pictograms, making it easier to prepare materials and adapt texts for people who have difficulties in the area of functionalcommunication.

AraWord is also a very useful tool for students who are in the process of learning to read and write, because the appearance of the pictogram as the text is being written acts as a very positive reinforcement for recognising and checking that the word or phrase is correct. (www.arasaac.org)

We suggest including a simple service-learning option when using this application, so that students can adapt children's stories, songs, poetry, curriculum content, etc. This can be useful for other people, including other students at the school. The students work in pairs.

Option 2. Online tools at the ARASAAC website

Here is the suggestion, along with a service-learning option. The idea is to produce a calendar, a bingo card or a game of the goose, using the online tools available on the ARASAAC website. They also work in pairs, and as with the previous suggestion, it can be useful for other people or other students in the same school.

5. FINAL PROJECT

GENERAL OBJECTIVES	Encourage critical thinking and personal initiative, in developing both individual and team working habits.
	Promote opportunities to enhance those intelligences in which each student shows greater abilities.
	Encourage visual thinking as a means of expressing ideas and feelings with drawings; working on creativity; reinforcing verbal thinking by addressing formats other than linguistic ones.
	Encourage the development of effective, critical and creative thinking.
	Involve students in the processes of research and problem solving.
	Encourage the use of information and communication technology (ICT) as a teaching resource for the teacher, and as a means for students to explore their potential to learn, communicate and offer

	their own contributions and creations using different languages. Empower students to become involved in creating a school for all. Develop life skills for personal and social wellbeing from a proactive perspective, improving interpersonal relations.
COMPETENCES	Linguistic communication Mathematical competence and basic competence in science and technology Digital competence Learning to learn Social and civic competences Sense of initiative and entrepreneurial spirit Cultural awareness and expression
CURRICULAR AREAS	Natural Sciences Social Sciences Spanish Language and Literature Artistic education
DURATION	At least one session (each class/team can spend as much time as they want to improve and finish off their contribution)
MATERIALS	Post-it notes Drawing Materials

The final project is to create a poster that calls for a more inclusive school - a school for all - that uses technology to support the inclusion of all students.

To make the poster, we suggest using a technique known as the Nominal Group Technique[1] that helps students develop creativity and enables all students to participate in an equal way.

First. Students work individually. Post-it notes are distributed among all the students and they write suggestions and ideas for producing the poster - one idea per Post-it note. Every time they write down an idea, it is put up onto the board or wall, in a place previously stipulated by the teacher. This creates a "cloud" of ideas.

Second. All the ideas are read out and any that are not fully understood are clarified or explained - if necessary, by asking the student who wrote down the ideas in question.

Third. All the ideas are grouped according to shared characteristics and in order that they can be identified, a name or drawing is assigned to each group of ideas. This makes it easier to choose one of them to include in the poster.

Lastly. The ideas are voted on and the most popular is selected. The vote can be done by show of hands, secretly (in writing), or using Kahoot, etc. The winning idea is the one that the students start working on in groups.

---

[1] From Delbecq y Van de Ven, 1971. To find out more https://www.aiteco.com/tecnica-grupo-nominal/

The inclusion-related suggestion for this part of the activity is for students to work in heterogeneous groups of no more than four. These groups are chosen by the teacher with the aim of making the groups as heterogeneous as possible by mixing students who complement each other. You'll find ideas about forming groups in the methodology guide that accompanies the Teaching Unit.

All groups work on the same idea - ie the one that was voted on during the Nominal Group Technique exercise. Each group will of course contribute their own perspective.

Given that it's beneficial for the poster submitted for the competition to have been created by THE WHOLE CLASS, one suggestion for achieving this is the following:

When each group has produced its outline sketch, it is rotated around the different groups in the class, so that a poster drawn by one group is improved upon and developed by contributions from the other groups. What is particularly beneficial is for all posters to include contributions from all groups. In order to create your class's submission to the competition, one of the poster options is chosen and worked on.

APPENDICES

IMAGE - used in *Imagine*, illustrated by Serafina Balasch and image of the cover of the book

Thinker's Key - "PREDICTION"

Guidelines for facilitating discussion groups

Thinking routine - "I SEE, I THINK, I WONDER"

I SEE	I THINK	I WONDER

APPENDIX 2. ARASAAC - Using technology to aid inclusion

ARASAAC is an Augmentative and Alternative Communication System based on the use of pictograms that facilitate communication with people who have difficulties in this area due to different factors (functional diversity, lack of language skills, trauma and cognitive degeneration). This catalogue of pictograms, adapted to different levels of language acquisition, is owned by the regional government of Aragon. (From the website www.carei.es)

The ARASAAC website offers free online tools and computer applications to encourage inclusion and remove barriers to communication. Each has its own user manual which explains in detail how to install it and work with it.

In ARASAAC's open classroom http://aulaabierta.arasaac.org/ and on its Youtube channel https://www.youtube.com/user/arasaac there are also tutorials on how to use the online tools the computer applications that are suggested for the exercise.