

3. Objectives and Methodologies

<p>Learning Goals and Objectives</p>	<p>By the end of the L&C Plan, students will</p> <ul style="list-style-type: none">• Find the answer to the guiding questions and so they will know how art reflects the community and how technology connects to art as an expression as an expression of people and culture.• Be able to verbalise the products made with the appropriate, specific terminology.• Know and compare the different expressive techniques, traditional and multimedia• Be able to operate intellectually and manually for an intentional and verifiable result as a synthesis of a cognitive, scientific process.• Be able to identify simple elements and procedures present in complex processes and objects, allowing them to be reused in the implementation of different but conceptually similar processes.• Be able to formulate hypotheses, detect and process data, evaluate results, compare phenomena attributable to the same model of communicating using the technical language correctly.• Identify the type of artistic, cultural and environmental assets present in their territory
<p>Learning Outcomes and expected Results</p>	<ul style="list-style-type: none">• After the project, learners will have a better knowledge of the artistic aspect of the area they live in and become more competent using new technologies to shape their achievements. The acquisition of knowledge and skills is achieved considering every technical fact and every production process that is not isolated, but in relation to other facts and processes, with the man who uses it and with the environment it is intended for.• This procedure develops their critical mind and fosters their curiosity about the social environment and awareness of their creative abilities. Their communicative skills will be enhanced, as they will work in groups and be obliged to relate to the social context.• The tangible results will be the virtual tour on Google maps and the model sculpture created.
<p>Prior Knowledge and Prerequisites</p>	<ul style="list-style-type: none">• The basic structures of visual language• The codes and compositional rules present in works of art and in multimedia communication (use resources also available from the Internet)• Basic knowledge of how to place works of art in their respective historical environmental contexts• Use of the most common technical terms relating to proceedings : units of measurement and calculation techniques; geometric design• The concept of relationship and proportion and basic concepts related to materials• Basic operational skills, in accordance with safety and accident prevention regulations• Tools and techniques for creative personal production: questionnaires and investigation tools• Representing and expressing what has been observed and one's personal experiences

Motivation,
Methodology,
Strategies, Scaffolds

The privileged methodological approach is the communicative-laboratorial one. A methodology of discovery and research in terms of lived experiences will be applied. Students' work is not reduced to manual skills - even if it includes them – but it is assumed as a fundamental didactic element. It has a formative value because motivated activities of a problematic type are favored. Motivating activities arise from the individual and collective needs.

To achieve the objectives, the inductive method and the problem solving methodology are used: concrete problem situations that arouse the interests of the students and take into account the technical concepts through reflections on the text, research activities, laboratory and operational processes.

Within these methodologies, the design method is used, intended as a path that leads to the solution of a problem through technical analysis, direct or comparative observation and the realization of simple technical-operational activities aimed at acquiring skills and the consolidation of concepts.

4. Preparation and Means

Preparation, Space
Setting,
Troubleshooting Tips

Tablets, laptops and IWB in the classroom (or a media lab), digital cameras or cell phones to take pictures will be necessary for students, in order to research the topics and develop their virtual city tour; art supplies, shop tools.

According to lesson activities students could work individually, in pairs/groups or in plenary sessions.

Other spaces: school auditorium or gym for the final event

City/town videos

https://www.youtube.com/results?search_query=city+tours+

Google maps application (my maps)

<https://www.google.com/maps/about/mymaps/> (application)

<https://www.youtube.com/watch?v=QIvxXUzc2U8> (tutorial on how to create a map)

https://www.youtube.com/results?search_query=how+to+create+kinetic+sculpture (selection of videos)

group – work assessment sheet

<https://www.schrockguide.net/assessment-and-rubrics.html>

(a collection of multipurpose rubrics)

<https://www.slideshare.net/carlyrelf/grade-8-hivrubicnov2011>

(assessing a multimedia product)

<https://www.studentartguide.com/articles/how-to-analyze-an-artwork>

<https://www.edutopia.org/pbl-assessment-resources>

- architectural analysis. PDF
- group self-assessment rubric.pdf
- Self-evaluation Chart.pdf
- edutopia-rubric.pdf

Resources, Tools,
Material, Attachments,
Equipment

See Section "Other information" for samples

Safety and Health

5. Implementation

Instructional Activities, Procedures, Reflections

The plan can be completed in 3 main phases , the first phase (3 hours with 3 activities) relates to the research, analysis and understanding of existing landscape features ; the second phase (2 hours with 2 activities) is a transitional phase implying the creation of the first tangible product , the virtual tour and an interim assessment session. The third phase (10 hours and 5 activities) culminated in the creation of students' own personal sculpture and connects the whole project to real life issues.

1. Research and photograph public art sites (1 hour in class – 1 hour field work + 1 hour plenary session +writing activity)

Activity 1: brainstorming /motivation and video analysis

Activity 2 : field work

Activity 3: description writing

In the art class the teacher presents the project idea and the driving questions . Students are then presented with a video focussing on the architectural features of their city. They are encouraged to express their reactions on positive aspects they value and negative aspects they would want to improve. The teacher presents a selection of public art pieces/installations to study. Students are divided into groups of 3- 4 persons. Each group will work on 1 or 2 art pieces (depending on the size of the class and the pieces involved). The task is to go around the town and photographs the chosen installations . The students are given a worksheet to guide them in retrieving relevant information from the research and the direct observation of the artworks (more able students may be given a less structured task). The type of information collected will guide them later on in the project for the construction of their personal model structure. Here's a possible worksheet to be used.

In the following session students will share the information they have found and, in groups write their own description of the pieces of art chosen, including relevant discoveries and personal impressions.

2. Place information on Google maps to create a walking tour (2 hours)

Activity 1 : creation of multimedia product

Activity 2: assessment

The descriptions and pictures are loaded on Google maps- my maps and all the different public art sites will be connected as a walking tour. Students create a virtual tour, by which clicking on the piece of art on the map, it will show the information that they have found and written about. The students and teachers evaluate the quality of the virtual product created by comparing it to similar existing products and by testing its useability with other students , teachers and parents.

3.Writing a proposal for the installation of an original artifact (30 minutes)

Activity 1: letter writing

In the language arts class, (plenary session) students write a letter to city officials with proposals for the installation of their original works that they are going to build. In this way student will relate to the community needs, show artistic appreciation of their realities and show awareness for the improvement of the city landscape,

4. Designing and building a model of an artifact/ sculpture (5 hours + 30 minutes ideation as homework)

Activity 1: model project design

Activity 2: sculpture building

In the Tech class students design their original model (first given as a home assignment and later finalised in class). They then build it. The rationale behind the activity is that students have fun and learn to be creative; they get to think about something, and in the creation process are encouraged to experiment and to develop problem solving abilities (tinkering). The activity is carried out in pairs. The materials used will be easily available even in the home: boxes, glasses, sheets of paper, pieces of wood, metal wires, plastic wrappers .

5. Preparing material for presentation (1 class hour + 1 hour homework)

Activity 1: written report/leaflet

After completing their work, the students will prepare a written report / leaflet with pictures and technical specifications and detailed description of their sculpture to go along with the oral public presentation .

6. Display model and discuss work at a public event. (2 hours)

Activity 1 : model sculptures display

The students will display their model sculptures, describe them with the help of the the leaflets created and discuss their installation proposals with parents and members of the community. On the occasion they will answer questions on how they made their sculpture, how the sculpture works and why they chose to make that particular piece. The members of the public will vote for the most interesting sculpture. In this way the students get engaged in the work that they have done , they take ownership of the work and feel responsible for it . They are able to talk about the things that they have learnt. In compliance with learning goals the students develop critical and socially engaged intelligence, which enables them to understand and participate effectively in the affairs of their community in a collaborative effort to achieve a common good. (John Dewey: Project on Progressive Ed)

Assessment
- Evaluation

- A self-assessment after stage 2 and stage 4,
- A group-assessment after stage 2 and stage 4
- A project –evaluation rubric at the end of the project (Edutopia rubric model)
- Informal assessment : results of the competition during the display phase

Presentatio
n -
Reporting -
Sharing

Short presentations by each group takes place during plenary sessions to show and discuss results of the work done.

Individual presentations take place in the final event.

Extensions -
Other
Information

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Worksheets:

Analysis of an architectural work: _____

Identification details:

Photo (insert an overall image of the structure)	Details: Author _____
	Dating _____
	Dimensions _____
	Location _____

Technical analysis

Technique and materials (materials used and methods of processing them): _____ _____
State of conservation (integrated work / damaged/ rebuilt) _____ _____
Any restoration work done? _____ _____

Stylistic analysis

Type (intended use) _____ _____
Plan, elevation, section (analysis of the compositional and functional aspects and of the stylistic models of reference) _____ _____
Lighting (typology and expressive function of the light sources) _____ _____
Surface treatment and color (sharp/rounded/grooved/smooth/opaque/glossy edges...) _____ _____

History

History of studies (critical and interpretative events of the work over time) _____ _____
Bibliography and sitography: according to the scheme: author, title _____ _____

SELF-EVALUATION

What do you think of the work you have done?

.....

1 – THE TOPICS

• Which topics did you work on ? Did you find them easy or difficult?

Topics	Easy	Difficult
1.	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>

• Did you already know something about these topics? NO YES

What did you know?.....

• Did you find it useful to complete the tasks? NO YES

• Write 5 important things that you learned

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2 – THE FINAL PRODUCT

• How would you rate the product you made?

• What did you like about your work?

.....

• What would you change ?

.....

3 – MY TEAM

	Very much	A lot	Little	Very little
Did you cooperate easily?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did you like working with your peers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• How could the teams work have been improved?

<input type="checkbox"/> More sharing of information	<input type="checkbox"/> Less time waste	<input type="checkbox"/> Task assignment load	<input type="checkbox"/> Too much discussion
<input type="checkbox"/> More time for homework	<input type="checkbox"/> Little carelessness	<input type="checkbox"/> Less disorganisation	<input type="checkbox"/> other ...

4 – MY WORK

• What was my role in the team?

.....

• What did I like about this activity?

Why?

.....

• What I didn't like about this activity?

Why?

.....

Group Work Self-Assessment Rubric
 Fixed Scale: 1 = Sometimes 2 Sometimes 3 Usually 4 Always

Criteria	1	2	3	4
<ul style="list-style-type: none"> Cooperation I worked cooperatively with other members of my group showing a willingness to help with any task. 				
<ul style="list-style-type: none"> Respect I listened to other ideas, considered my points of view and offered constructive suggestions. 				
<ul style="list-style-type: none"> Effort I contributed to the task by doing my part and sharing ideas and the work required. 				
<ul style="list-style-type: none"> Responsibility I worked responsibly and to the best of my ability on my own tasks and the task. 				
<ul style="list-style-type: none"> Task Commitment I was able to focus on what we needed to do throughout the process of our task and kept working even when I found something challenging. 				
<ul style="list-style-type: none"> Problem Solving I tried to think of and suggest alternative solving strategies throughout the process of completing the task. 				
<ul style="list-style-type: none"> Additional criteria 				
<p>Comments or Suggestions for Improvement:</p> <p>https://www.edutopia.org/group-work-self-assessment-rubric</p>				

Sample Rubric

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	UNSATISFACTORY	COMPETENT	PROFICIENT	DISTINGUISHED
TECHNIQUE/CONCEPTS	Work lacks understanding of concepts, materials and skills.	Work shows some understanding of concepts, materials and skills.	Work reflects understanding of concepts and materials, as well as use of skills discussed in class.	Work shows a mastery of skills and reflects a deep understanding of concepts and materials.
HABITS OF MIND	Student passively attempts to fulfill assignment without much thought or exploration of possibilities. Student refuses to explore more than one idea.	Developing exploration of possible solutions and innovative thinking. Student has more than one idea but does not pursue.	Student explores multiple solutions and innovative thinking develops and expands during project.	Consistently displays willingness to try multiple solutions and ask thought-provoking questions, leading to deeper, more distinctive results. Student fully explores multiple ideas and iterations.
REFLECTION & UNDERSTANDING	Student shows little awareness of their process. The work does not demonstrate understanding of content.	Student demonstrates some self-awareness. Work shows some understanding of content, but student cannot justify all of their decisions.	Student shows self-awareness. Work demonstrates understanding of content and most decisions are conscious and justified.	Work reflects a deep understanding of the complexities of the content. Every decision is purposeful and thoughtful.
CRAFTSMANSHIP	Work is messy and craftsmanship detracts from overall presentation.	Work is somewhat messy and craftsmanship detracts somewhat from overall presentation.	Work is neat and craftsmanship is solid.	Work is impeccable and shows extreme care and thoughtfulness in its craftsmanship.
RESPONSIBILITY	Frequent illegal absences, tardiness, disrespect for classmates and teacher. Disregard for materials and work such as refusal to clean up or throwing out work.	Student is sometimes illegally absent, tardy, or disrespectful. Must be persuaded to assist in clean up and to take work home.	Student is most of ten present, on time, and respectful. Usually participates willingly in clean up and takes pride in work.	Student is consistently present, punctual, and respectful of classmates and teacher. Self-directed clean up and ownership of work.
EFFORT	Work is not completed in a satisfactory manner. Student shows minimal effort. Student does not use class time effectively.	Work complete but it lacks finishing touches or can be improved with a little effort. Student does just enough to meet requirements.	Completed work in an above average manner, yet more could have been done. Student needs to go one step further to achieve excellence.	Completed work with excellence and exceeded teacher expectations. Student exhibited exemplary commitment to the project.
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STEAME Prototype/Guide for Learning & Creativity Approach
Action Plan Formulation

Open-air Museum

Major steps in the STEAME learning approach:

STAGE I: Preparation by one or more teachers

1. Formulating initial thoughts on the thematic sectors/areas to be covered

These topics will be taught:

- Town history through artistic and architectural features
- Information search through media and data collection
- Construction and use of virtual tour for public use
- Building of creative artefacts
- Presentation of tangible results

The world of the wider environment / work / business / parents / society / environment will be engaged

2. Target Age Group of Students - Associating with the Official Curriculum - Setting Goals and Objectives
It can be taught in grade 8 , but the project is adaptable in higher or lower grades , with different levels of duration and learning goals.

3. Organization of the tasks of the parties involved - Designation of Coordinator - Workplaces etc.

- T1 – Teacher of Art and Social Sciences
Teaching connections between arts and society , landscape planning , community values
Teaching interpretation and writing skills related to art topics

Workplace: Classroom – Field work

- T2 – Teacher of Technology and Computer Science

Teaching the use of Google applications for the creation of the virtual tour
Teaching the construction of an artifact
Teaching presentation skills related to creative artefact construction

Workplace: Computer Lab - Tech shop

STAGE II: Action Plan Formulation

1. Relation to the Real World – Reflection

The project relates to the real world in that the students are growing to become responsible citizens who are expected to apply their competences to meeting the needs of the community. This will motivate both students and civil authorities to cooperate.

2. Formulation of a problem (possibly in stages or phases) resulting from the above

The student / teacher team contact municipal authorities proposing support in the realisation of the project aiming at offering and selecting creative proposals to impact the quality of the urban landscape and the communal life.

3. Background Creation - Search / Gather Information

Meetings are arranged – or preliminary contacts made - between teachers (and possibly representative students) and public authorities to inform about the project and check collaboration and feedback for final results.

Prior knowledge and prerequisites are assessed (also informally).

4. Simplify the issue - Configure the problem with a limited number of requirements

The teachers formulate the learning and action plan, setting the projects goals , connecting the outcomes to the curriculum, and identifying driving questions. The expected tangible results are defined.

5. Case Making - Designing - identifying materials for building / development / creation – workflow

After the presentation of the project, the students, guided by the 1st teacher, work through phase 1 for the research and analysis of information and understanding of existing artistic realities in their town. They work in small groups of 3, each one dealing with different monuments/sculptures.

6. Observation-Experimentation

Students gather information both through desk and field research about the city installations and collaborate to produce a written description of them. The descriptions are checked for content and form by the teacher and by the students themselves before being inserted in the virtual tour. The students in groups collaborate to the creation of the virtual tour on Google maps – my maps.

7. Studying the results – drawing initial conclusions - First presentation by students

The students and teachers evaluate the quality of the virtual product created by comparing it to similar existing products and by testing its useability with other students/teachers and parents. If necessary they will make some adjustments.

8. Repeat step 5 with additional requirements and under different conditions.

After the conclusion of phase 1 and 2 , the students, guided by the 2nd teacher , proceed through phase 3 to design and build a model of an artifact / or sculpture and prepare material to include descriptions and technical specifications of the model. The activity can be done in pairs or individually, depending on time available, students' individual skills, and whether the teachers' priority is that of inclusiveness. In this case, careful pairing of students will encourage discussion, collaboration and support for the less able.

9. Presentation of Conclusions - Communication Tactics.

The presentation of conclusions will be done in a public event organised at the school with parents, members of the community and city authorities. The students will present their personal virtual tour on Google Maps, and they will display their installation proposals. They will take ownership of the work they have done and feel responsible for it being able to prove the knowledge and competences acquired in the process. The public members will give a vote to the art pieces , and the results of the competitions will assess the effectiveness of the product.

10. Applications in Everyday Life - Suggestions for Development (Entrepreneurship - SIL Days)

Activity 9 involves public representatives and the results of the competition may encourage the town officials to consider the ideas displayed for future landscape improvement plans.

Brief Description/Outline of Organizational Arrangements / Responsibilities for Action

STAGE	Activities/Steps Teacher 1(T1) Cooperation with T2 and student guidance	Activities /Steps By Students Age Group: 13-14	Activities /Steps Teacher 2 (T2) Cooperation with T1 and student guidance
A	Preparation of steps 1,2,3 (Stage1)– steps 2,3,4 (stage II)	Step 3 (stage II)	Cooperation in step 1,2,3 (Stage 1)- Steps 2,3,4 (stagell)
B	Guidance in step 5	5,6	Support guidance in step 5 Guidance in step 6
C	Creative Evaluation 7	7	Creative Evaluation 7
D	Support Guidance 8	8	Guidance 8
G	Preparation of step 9	9	Preparation in step 9
K	Creative Evaluation 9	9	Creative Evaluation9
F	Organization (SIL) STEAME in life	10 Meeting with city representatives	Organization (SIL) STEAME in life