

Lesson Plan: CULTURAL HERITAGE IN SPAIN

Teacher: Mariela Iborra

Subject: History

Title : Lesson	Time : 3 hours
Subject : History	
Aim: To understand the significance of cultural heritage in Spain. To apply computational thinking concepts to explore and analyze cultural heritage. To develop problem-solving and critical thinking skills through hands-on activities.	
Key CS elements: decomposition, pattern recognition, abstraction, algorithm design	
Age group : 7th graders, 13 year olds	
Learning situations: classrooms	Activity type : analysis
Resources : <ul style="list-style-type: none">- Computers or tablets with internet access to access to online resources about Spain's cultural heritage- Pen and paper, as well as construction paper, markers, and art supplies- Printed maps or images of Spain's monuments/sites (from Tourism office)- Presentation software (e.g., PowerPoint, Google Slides)	
Learning development:	
First we identify the problem: (part 1= 1 hour lesson) 1. Decomposition: we break down the problem into smaller, manageable segments. Divide students into small groups and provide each group with a specific cultural heritage site in Spain. Instruct students to research and gather information about their assigned site, including its historical significance, architecture, cultural practices associated with it, etc. Have each group create a presentation or poster summarizing the key aspects of their cultural heritage site, using visual aids and concise information, by using online presentation (Canva, Genial.ly, etc) Ask each group to present their findings to the class, focusing on the information about their site. 2. Pattern recognition: (part 2 and 3= 1 hour) Once the students have been offered the different monuments (from the previous presentation or posters they have created), they will have to find any pattern in them: <ul style="list-style-type: none">- place where it was built.- characteristics of the building (style)- year of construction.- size of the building.- materials used in the building.- numbers of visitors.	
3. Abstraction: With the abstraction they students find that: <ul style="list-style-type: none">- The place where they monuments are built is connected to the use of the building:	

- a church / cathedral is going to be located in a big - center area because it is going to be the heart of the community; whereas an aqueduct will be located near a river, waterfall or lake, in order to take the water to the city.
- The materials are directly related to the period or year of the building itself:
 - an aqueduct is made of granite
 - a baroque church is made of limestone whereas a gothic church has stone
 - a bridge belonging to Roman age is made of granite
- The materials, mainly in the inside part of the buildings, are connected to the period, as well as to the money invested in the building:
 - the colourful windows of the Cathedral of Leon, connects the building to the XV century, where the gothic period was present.
- The size of the building is also important, because it is directly related to the money invested in it or the importance of the building:
 - the cathedral of Santiago de Compostela was sponsored by a bishop, who was helped by king Alfonso VI.
 - the church Santa Maria del Naranco, in Oviedo, was built as a palatine place by the king Ramiro I, so at first it was a little palace for the king, not a church.

4. Algorithm design: (part 4= 1 hour)

To deal with this task the students have to do two things:

- design a “tool” to classify the different monuments according to the different items mentioned in part 3. So, in order to do this: they have to follow the following steps:
 - step 1: measure the building
 - step 2: check the materials
 - step 3: find its location in a map
 - conclusion: depending on size and location we can infer it is a church, a cathedral or another building.

Another way to work with algorithm design: data representation and analysis. First of all, we should instruct students to analyze the data and identify any patterns they observe.

Students are provided with the numbers of visitors to the different sites at several times: holidays, festivals, summer, winter.

- step 1: analyze the data.
- step 2: find out the number of Spanish people visiting the places at those different times.
- step 3: find out the number of foreign people visiting the places at those different times.
- step 4: compare the data and conclude if the time of the year (summer, winter, holidays or not) is related to the type of visitor, either Spanish or not.

The teacher should also guide students in representing the data visually using charts, graphs, or maps.

To end the lesson: there is a class discussion where students share their findings and interpretations based on the data representations.

Assessment: Monitoring the students responses

Expected results: They have to conclude what time of the year is the best to visit those sites and if you are going to find more Spanish or foreign people in them.

Notes:

The students suggest organizing a visit to a cultural heritage site in Spain, where they can observe firsthand the elements they explored during the lessons, not only the characteristics of the place, but also the issue of visitors.