# Project-Based Learning Planning Template

<table>
<thead>
<tr>
<th>Teacher Name:</th>
<th>Grade Level:</th>
<th>Project Title:</th>
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<tbody>
<tr>
<td>Barbara Gonzalez</td>
<td>2nd Grade</td>
<td>Making a Landform Model</td>
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## Content Standards Addressed:
(National Math Standards or Common Core/NGSS)

NGSS 2-ESS2 Earth Systems: 2-ESS2-2 Develop a model to represent shapes of landforms and bodies of water in an area.

## Cross-Curriculum Connections:
What other standards and subjects will you address in this project:

- **Grade 2 ELA/Literacy: SL.2.5**: Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, or feelings.
- **Mathematics**
  - **MP.2**: Reason abstractly and quantitatively.
  - **MP. 4**: Model with mathematics
  - **2.NBT.A.3**: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **Visual Arts 2.0 Creative Expression Communication & Expression**
  - **V.A 2.4**: Create a work of art based on the observation of objects and scenes in daily life, emphasizing value changes.

## STAGE 1: PLANNING:

<table>
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<tr>
<th>Driving Question: the question that drives the work</th>
<th>How will students use their understanding of the shape of our natural world to create a model of our land and bodies of water? What different shapes can our land have and what kinds of bodies of waters exist in our area. Can students understand, develop, and use models to represent an important concept?</th>
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Project Summary: (what students will do, learn and accomplish by the end of the project)

My second-grade students will become scientists for a day and they have been assigned the important task of doing an exploration of an area around them. In this task, you and your partner have the responsibility of exploring the shape of a selected landform and of the bodies of water surrounding this area; you and your partner will also be using your knowledge of models to develop a model that resembles the shape of the landform and the bodies of water discovered during your exploration. This is a very important assignment since the model will be put up in the running to be selected and used as the class model and be used to represent the specified landform during research. The team with the winning model will also be given extra credit points. In order to complete your model and convince everyone that your model is the best, you will need to do the following:

a. Develop a model to represent shapes of landforms and bodies of water.

b. The model should resemble the landform you are trying to represent and should include objects that you can find in the area.

c. Write a reflection that explains your steps in making the model, why your model is the best, and why it should be chosen.

Create a model of the assigned landform and that you are planning to show to the class and the teacher to try and convince us that the model is the best representation of the landform and should be used in our classroom. Use your knowledge of the model making, landform, bodies of water, and the area you will be making a model of to develop this model; make sure you can create a model the reflects the community, environment, and that it is similar to area like a good model should be. Remember that your model must have a base area of no more than 24 inches and that you must be able to fit at least a couple houses, animals, and some vegetation. Use your knowledge of area and perimeter to determine how big you want your model to be.

21st Century Skills: (to be taught and assessed) Based on 4C’s Framework

<p>| Creativity: Students decide how big their model will be big and how they create the dough for their model. They get to decide what to include in their model and the | Critical Thinking: Students must determine how the assigned landform needs to look like and determine what needs to go in the model in order to be a good |</p>
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<th>The Hook: How will you engage the students and spark their interest</th>
<th>I will explain to the students that they will be taking the role of a scientist for a day and use their knowledge of landforms, a specific area, and bodies of water to be able to develop a model that will be used in our class. They will be able to use their knowledge of how and why people use models in science and elaborate on the process of model making. I believe that students will be excited because it is a way for them to have fun while learning and they get to use their creativity and imagination. Students like to do hands-on activity and they will be excited to learn that they will be exploring their inner scientist to develop their landform models.</th>
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<td>Collaboration: Students will work together; in pairs, to complete the landform. Together they will determine the shape of the landform, the bodies of water that they will include, and the material they will use to develop their model. Together they will reflect about their design and what they think will be the best resources to use to complete the assignment.</td>
<td>Communication: Students will work together to present their ideas and their model to the class. Students will use Google Docs to write out their reflection; they could choose written reflection or choose to do a PowerPoint presentation.</td>
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| Resources & Materials | Material/Equipment:  
-homemade salt dough  
-blue plastic plates  
-construction paper to make map flags  
-scissors/markers/color pencils  
-rulers  
-1 toothpick for each flag times the number of students  
-glue |
- brown tempera paint or food coloring

Technology:
- Chrome Books
- Teacher computer
- Google Slides (software)
- YouTube (software for videos)
- Smart board

Community/Onsite people: The students, teacher (me), any parent volunteers, and the Principal

Learning Outcomes & Targets:
What targets will students meet to be able to complete the project

Students will need to be able to develop a model to represent shapes of landform and bodies of water.
Students will need to be able to understand that different landforms and have an understanding of the process of model making to complete this assignment.
Students will be able to write a reflection where they reflect on how and why people use models.

Instructional Strategies:
What will you provide to support student learning and scaffold information with materials and lessons aligned to learning outcomes and assessment.

As the teacher I will oversee decision making and provide guidelines during the experiment. I will have a clear set of rules and guidelines for the project.
**Checkpoint:**
How will you ensure all students are on track and moving toward the learning goal.

I will ensure that all students are on track and moving toward the learning goal, by consistently moving around the room observing what the students are doing and if they are able to use their knowledge on models, the shape of our land, and the bodies of water to create the model. I will ask them to explain their strategies and the steps they are taking to create their model and the different landform shapes and bodies of water they will be including in the model and their reasoning. If they are unable to provide a clear introduction, I will assist and try to explain to them why model making is important and why the model should be similar to the item it represents. I will help them generate ideas of how they can build their model and things they might want to use to create the model.

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### STAGE 2: ASSESSMENT

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<th>Assessment Products:</th>
<th>Individual: I will observer the students as they work on the experiment and ask questions along the way. I will ask students to write a journal log about their strategies to build their land model and the information they used to determine what shape the land will be and the bodies of waters included in the model.</th>
<th>Specific Evidence and Completion: In the journal log they should mention the strategies used to build the model. The reasons for the model and the area they are trying to represent with their models. They should also mention the shape of the landform and the bodies of water included in their model.</th>
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<td>Group: Students will be given the option do a presentation in front of their peers of their landform model and then there will be a peer evaluation where the students will decide (based on the information provided by students presenting) which model is the best representation of the specific landform.</td>
<td>Specific Evidence and Completion: Students will look for the model that demonstrates best knowledge of landforms, bodies of water, and models. They will evaluate if the landform has everything that a good model should have and if it is similar to what it is trying to represent (as a model should). They should evaluate if it accurately represents the specified area and if it includes all bodies of water and the correct</td>
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<td>Reflection Methods: (how will students capture their thinking across the scope of the project)</td>
<td>Individual: (graphic organizer/journal): Students will write down their ideas in a journal and plan out how they want their models to look like, the landform they will be making a model of, and what they plan on using to create it and the strategies they will be using.</td>
<td>Group/Team: Students will be paired up and as a pair they will share ideas with each and use a graphic organizer, in Google classroom, where the teacher can see their different ideas. They will use the graphic organizer to work together and decide on what the final landform should look to be a good representation of the landform that can be used for reference in class. They will write out a reflection that explains their model and</td>
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Resources:
