

## Science/Technology Project

### "What's the Diff?"

Name \_\_\_\_\_ Date \_\_\_\_\_

***GPS Standard Addressed: S5P2. Students will explain the difference between a physical change and a chemical change.***

In this project, you'll be teaching a second grader about the difference between and physical change and a chemical change. They are learning about phases of matter, so you'll need to be able to show why a change of state is a physical, not a chemical change.

Science:

Here are your required elements that must be included in your project:

1. A brief description of matter, including the basic properties of mass and volume.
2. A clear explanation of a physical change in matter.
3. At least 2 examples of a physical change.
4. Pictures, graphics, or video of matter undergoing a physical change.
5. A clear explanation of a chemical change in matter.
6. At least 2 examples of a chemical change.
7. Pictures, graphics, or video of matter undergoing a chemical change.
8. A clear explanation of why phase changes (solid to liquid, liquid to gas, gas to liquid, liquid to solid) are physical changes
9. Use of some form of technology to present your project.

***If you plan on videotaping your physical or chemical changes....you MUST HAVE ADULT SUPERVISION if you are working with ANY chemicals or sources of heat! If you are planning on using video to show an example, it MUST be conducted at school and be pre-approved by your teacher. You may choose to include pictures or graphics if you do not want to include a video. We will have a day or two in class for those who would like to videotape for this portion.***

Technology:

You have many choices in how you would like to present your project. If you have apps on your mobile device, you can choose an appropriate one to use. We have a list of apps for productivity and presentation available. I will be showing you how these apps work throughout the unit. You will need to let your teacher know which app you plan on using. See the PLANNING SHEET for details.

If you do not have a mobile device, you may use the laptops and/or the desktops. There are several programs that you can use, including Wixie, Frames, Pixie 3 and PhotoStory.

Your project will be uploaded to a WikiSpaces page so that others can view it. We will learn how to do this during the unit.

The rubric on the back show the requirements needed. This grade will be a SUMMATIVE GRADE for science.

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I have read and understood the requirements for this project. I will fully participate with my group to complete all of the requirements.

Student Signature \_\_\_\_\_ Parent Signature \_\_\_\_\_

NAMEDATE

<b>Required Element</b>	<b>Does not Meet Standard (6 pts each)</b>	<b>Meets Standard (8 pts each)</b>	<b>Exceeds Standard (10 pts each)</b>
<b>Matter Definition</b>	No description is given.	Description includes only properties of mass and volume.	Detailed description includes more than properties of mass and volume.
<b>Physical Changes</b>	Presentation doesn't include correct definition and/or examples of physical change.	Presentation includes correct definition and at least 2 correct examples of physical change.	Presentation includes detailed description and more than 2 correct examples of physical change.
<b>Chemical Changes</b>	Presentation doesn't include correct definition and/or examples of chemical change.	Presentation includes correct definition and at least 2 correct examples of chemical change.	Presentation includes detailed description and more than 2 correct examples of chemical change.
<b>Visual Content (pictures, videos, etc)</b>	Visuals don't support the content and used only as decorations.	Some visuals support the content, but some have only decorative purpose.	Visuals support the content and make it easier to understand scientific concepts.
<b>Phase changes in matter</b> <i>(This section is worth 2x the points)</i>	No explanation and/or incorrect explanation of phase changes are given.	Correct explanation is given for why phase changes are physical changes.	Correct explanation is given and includes the definitions of physical and chemical changes and explains why phase changes are physical changes.

Comments:

Total Score: \_\_\_\_\_ Percentage: \_\_\_\_\_

## Project Planning Sheet and Milestones

Group members:

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What roles will each group member play in completing this project?

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*Requirements:*

*Check these off as you complete them with your group members.*

\_\_\_\_\_ Complete the Interactive Text pages \_\_\_\_\_ for background knowledge.

\_\_\_\_\_ Read and take notes from the websites on Ms. Robinson's webpage on physical and chemical changes in matter.

\_\_\_\_\_ Create and turn in a story board and script for your project. You may use the blank storyboard that is attached or create your own using apps from your device. This **MUST** be turned in and approved by your teacher before going forward with production.

\_\_\_\_\_ Research examples for physical and chemical changes in matter. If you will be conducting a demonstration and videotaping it, it must be approved by your teacher first.

\_\_\_\_\_ If conducting a demonstration, you must gather up the necessary materials and bring them to school in order to record it for your project.

\_\_\_\_\_ Get approval for the app or program that you will be using to create your product.  
**OUR GROUP WILL BE CREATING OUR PROJECT USING**

\_\_\_\_\_ Teacher Initials \_\_\_\_\_

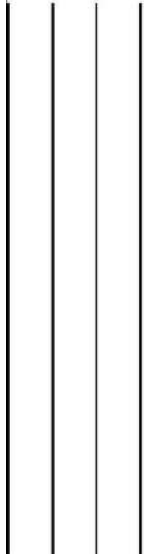
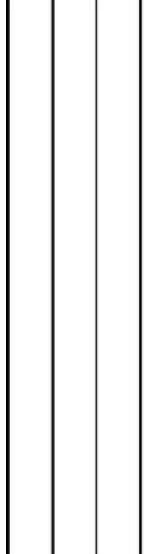
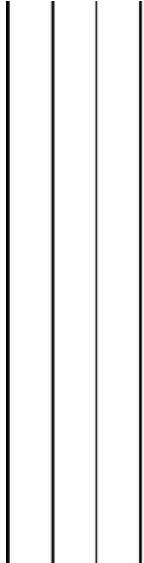
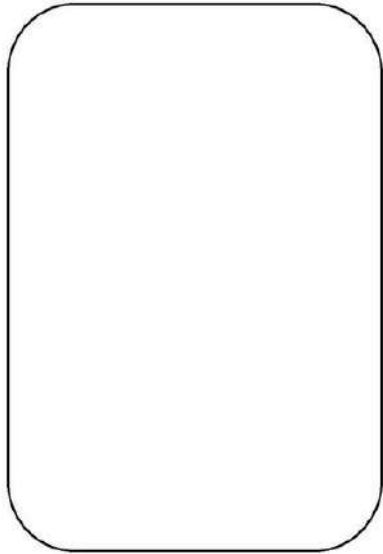
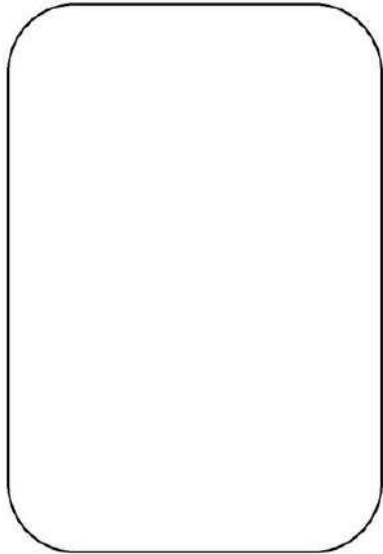
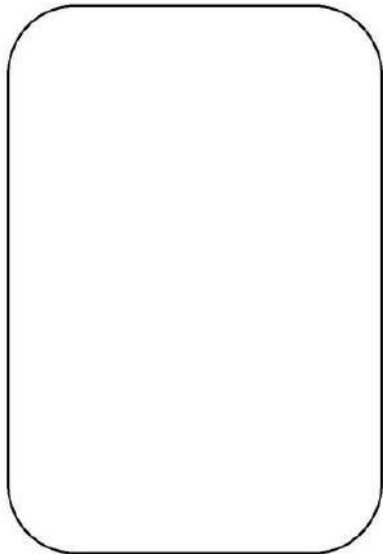
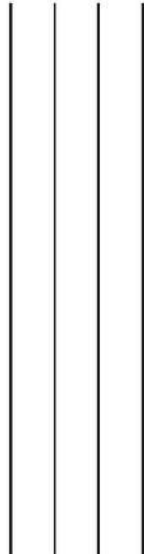
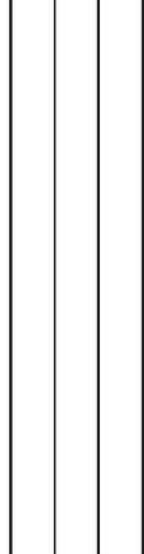
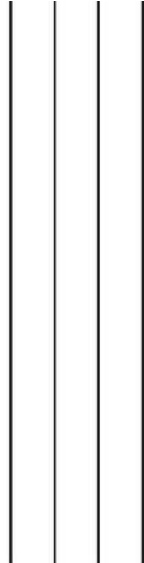
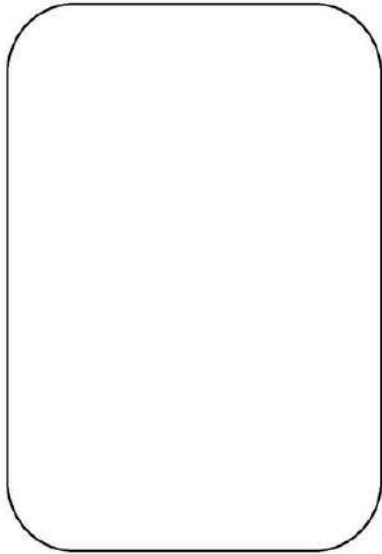
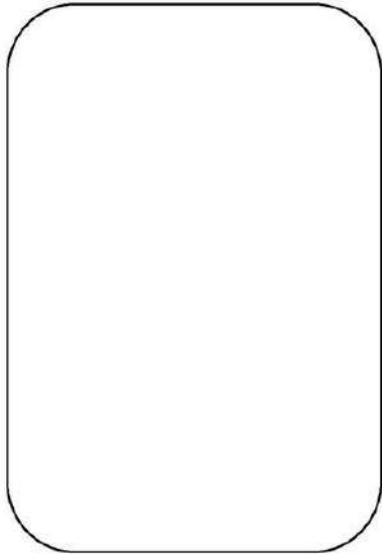
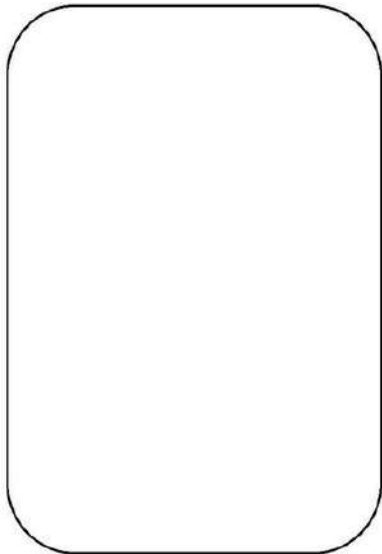
\_\_\_\_\_ Create your product, using apps on your devices or programs such as Wixie, Pixie 3, Frames, or PhotoStory.

\_\_\_\_\_ Upload your project to share with the class.

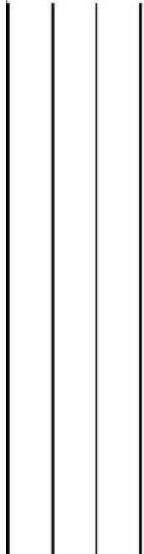
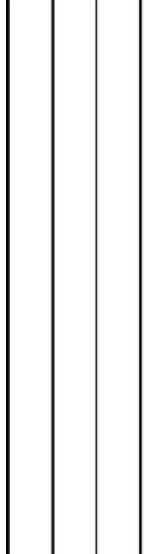
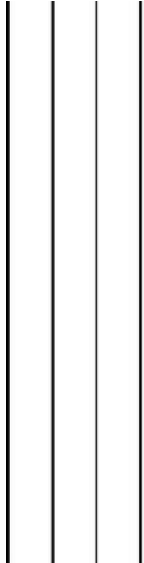
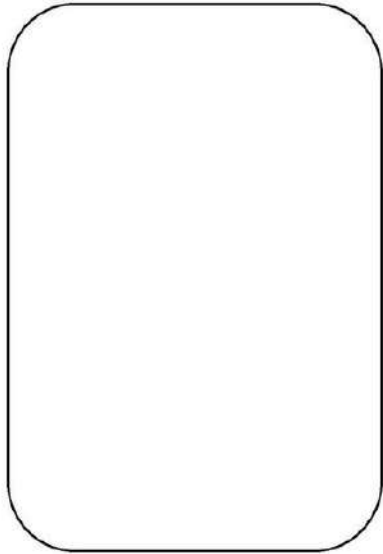
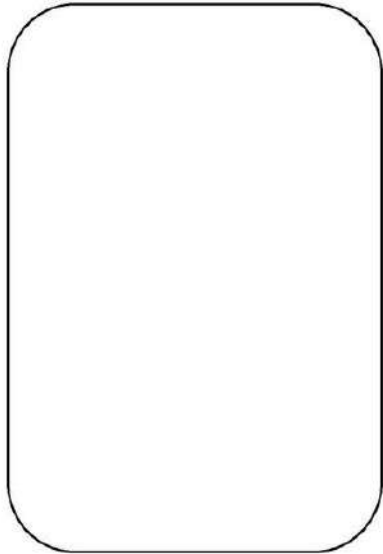
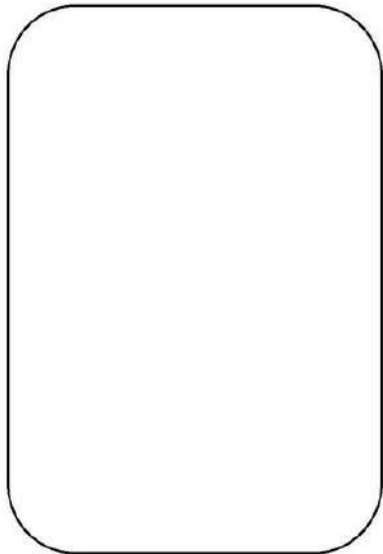
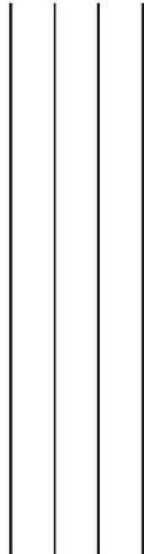
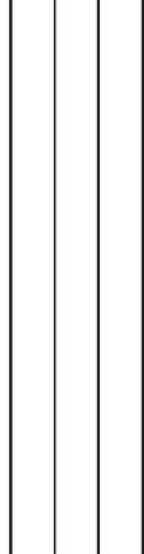
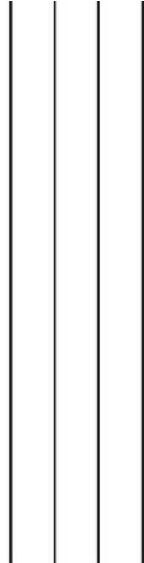
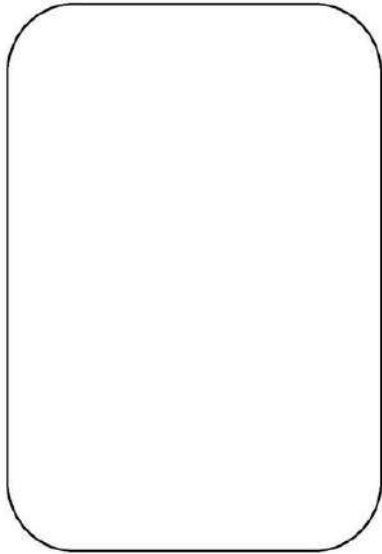
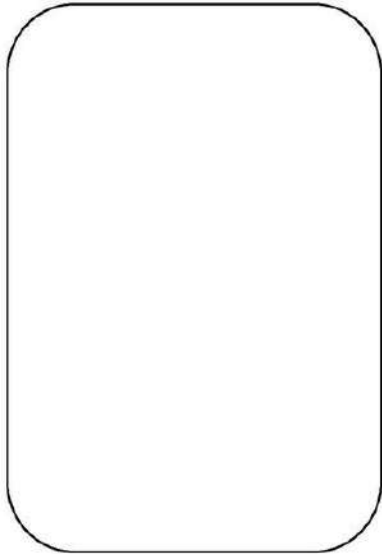
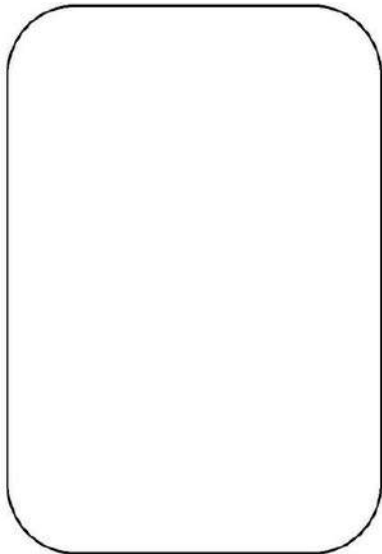
\_\_\_\_\_ Complete the self-assessment at the end of the project. You will receive this from your teacher when you finish everything else.



Title \_\_\_\_\_



Title \_\_\_\_\_



Title \_\_\_\_\_

