**Plate Tectonics, Rocks of Maine, and the Story that they Tell**

**Total Points Possible: 64**

For the final assessment/final project/final exam in our Plate Tectonics unit, you will be producing a digital booklet on the Geology of Maine. A digital booklet is simply a multi-page document that will not be printed out—it is just digital. It is NOT a PowerPoint or slide show. Please use Google Docs on this project. You are welcome to be as creative as you want to be in determining the final appearance of your booklet, but you must follow the following basic guidelines:

Your booklet must have exactly six pages:

**First Page**: Title page containing title, your name, and one Maine geology image of your choice.

**Second Page**: A brief description of the Theory of Plate Tectonics. Convergent Boundaries, Divergent Boundaries, and Transform Boundaries must be described.

**Third Page**: Igneous Rocks of Maine—Identify a common igneous rock found in Maine, and a good place in the state to find this rock. Describe how this igneous rock forms, and the type(s) of plate movements that produce this type of rock.

**Fourth Page**: Sedimentary Rocks of Maine—Identify a common sedimentary rock found in Maine, and a good place in the state to find this rock. Identify a fossil that is commonly found in Maine, and include an image of this fossil. Describe how sedimentary rock generally forms.

**Fifth Page:** Metamorphic Rocks of Maine—Identify a common metamorphic rock that is found in Maine, and the best places in the state to find this rock. Describe how metamorphic rocks are created, and identify the type(s) of plate movements that produce metamorphic rock.

**Sixth Page:** Build a Scientific Argument about Maine’s Geologic history. You will make a claim about how past movements of tectonic plates created the current landscape of Maine, and then support that claim with TWO pieces of evidence from Maine’s geology.

**CLAIM:** Your claim will be about either convergent boundaries, or divergent boundaries.

**EVIDENCE:** You will identify two different pieces of evidence from Maine’s landscape that you will use to support your claim.

**REASONING:** You will clearly and logically explain how the evidence that you provided supports your claim about past movements of tectonic plates.

**For every image that you find and use from the internet, you will need to attach the link to the website in order to give credit to the author. You can earn extra credit on this assignment by taking and using your own photos.**

**Plate Tectonics, Rocks of Maine, and the Story that they tell**

**Scoring Guide**

**Digital Booklet Page 1:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 1  Target: Title Page with title, name, and image of Maine Geology |
| **Does not meet**  **0** |  |
| **Partially meets**  **1-2** |  |
| **Meets**  **3** |  |
| **Exceeds**  **4** |  |

**Digital Booklet Page 2:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 2  Target: “Overview of the Theory of Plate Tectonics”: Description of types of Plate Boundaries |
| **Does not meet**  **0** | page is not included |
| **Partially meets**  **1-6** | One or more required item is absent and/or contains incorrect information |
| **Meets**  **7-9** | All required information is present, and is accurate. Appropriate and helpful images are included, and are cited |
| **Exceeds**  **10-12** | All required information is present; page is attractive, easy to follow, and free of spelling errors; one or more image was taken by student |

**Digital Booklet Page 3:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 3  Target: Igneous Rocks of Maine- a common igneous rock found in Maine; where to find this rock in Maine; how this type of igneous rock forms; types of tectonic boundaries that create this igneous rock |
| **Does not meet**  **0** | Page is missing from booklet |
| **Partially meets**  **1-6** | One or more required item is absent and/or contains incorrect information |
| **Meets**  **7-9** | All required information is present, and is accurate. Appropriate and helpful images are included, and are cited |
| **Exceeds**  **10-12** | All required information is present; page is attractive, easy to follow, and free of spelling errors; one or more image was taken by student |

**Digital Booklet Page 4:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 4  Target: Sedimentary Rocks of Maine- a common sedimentary rock found in Maine; where to find this rock in Maine; a fossil found in Maine; how sedimentary rock forms |
| **Does not meet**  **0** | Page is missing from booklet |
| **Partially meets**  **1-6** | One or more required item is absent and/or contains incorrect information |
| **Meets**  **7-9** | All required information is present, and is accurate. Appropriate and helpful images are included, and are cited |
| **Exceeds**  **10-12** | All required information is present; page is attractive, easy to follow, and free of spelling errors; one or more image was taken by student |

**Digital Booklet Page 5:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 5  Target: Metamorphic Rocks of Maine- a common metamorphic rock found in Maine; where to find this rock in Maine; how metamorphic rock forms; types of tectonic boundaries that create metamorphic rock |
| **Does not meet**  **0** | Page is missing from booklet |
| **Partially meets**  **1-6** | One or more required item is absent and/or contains incorrect information |
| **Meets**  **7-9** | All required information is present, and is accurate. Appropriate and helpful images are included, and are cited |
| **Exceeds**  **10-12** | All required information is present; page is attractive, easy to follow, and free of spelling errors; one or more image was taken by student |

**Digital Booklet Page 6:**

|  |  |
| --- | --- |
| **Proficiency Level**  **Possible Points** | Page 6  Target: A scientific argument about Maine’s geologic history; a claim about convergent or divergent boundaries in Maine’s past; TWO good pieces of evidence that support the claim; clear reasoning that connects evidence to claim |
| **Does not meet**  **0** | Page is missing from booklet |
| **Partially meets**  **1-6** | The scientific argument is critically flawed: one or more of the C-E-R is missing; evidence does not support claim, and/or reasoning does not connect evidence to claim. |
| **Meets**  **7-9** | The scientific argument is reasonable; both pieces of evidence support the claim, and the reasoning connects the evidence to the claim |
| **Exceeds**  **10-12** | Superb scientific argument is developed; pieces of evidence are both very appropriate for the claim, and the reasoning is easy to follow and describes how the evidence supports the claim. |