**Sea Level Rise and Kinetic Molecular Theory**

**Project Choice Board**

| **Children’s Book/Comic Book**  Children’s book should include drawings, characters and text. | **Google Slides with Screencast**  Slides should include images and text explanation. Screencasts should include verbal explanations for slides, not just reading your text. |
| --- | --- |
| **Animation**  Animation should include characters and verbal explanation. | **Poster**  Poster should include images and text or video explanation. |
| **Song/Poem/Story**  Song/poem/story should include lyrics and performance (can be recording/video). | **Video /TikTok**  Video should include verbal explanation and props. |

Have another idea? Get permission from your teacher first!

**FQ: How does adding or removing energy affect the phase of matter in a system?**

**FQ: How does thermal expansion affect density and how does that impact sea levels?**

**FQ: How are indigenous communities and/or cultures around the world affected by sea level rise?**

Task Specific Requirements

Your project should highlight a country *or* location of your choice and explain how sea level change and/or ocean temperature has changed there, the problem(s) it has caused in that area, and how people are attempting to solve that problem. Your project should include an explanation and model of how thermal expansion affects density and sea levels. Your project should address each of the focus questions above.

Include the following:

* Name of country/location
* Map of where your country/location is located
* Pictures relevant to climate change in that area
* Describe how weather patterns are changing in the region of the world you have chosen to research
* Sea level/ocean temperature data
* Visualization of that data
* Written description of how climate change is affecting people in that country and problem(s) that are caused by the shift in weather patterns
* Written description of how people in that area are attempting to solve the problem(s) climate change has caused.
* At least 2 types of sources (video, text, article, book, simulation, graph) and 5-7 different SCIENTIFIC or EDUCATIONAL sources in total.
* Well chosen, reliable sources which are fully referenced using footnotes and/or in text citations.
* Accurate explanation of thermal expansion, KMT, and the role of climate change in sea level change

**PROJECT WORD BANK**

*Note: Not ALL words in the bank have to be used to show proficiency! Think of this as another place to check your progress. Is your project showing/describing these words and ideas, even if some of the words aren’t specifically mentioned?*

| kinetic energy | spacing | attraction | high / low |
| --- | --- | --- | --- |
| thermal expansion | particles | repulsion | faster / slower |
| density | volume | increase / decrease | movement |
| sea level | temperature | heat | collisions |

[**Resources**](https://docs.google.com/document/d/1UpDMxKTH1H1lMKT-srlj7VHl0gWsobAMgiXgXiDG1sg/)

**Scoring Guide**

* required task specific elements are included
* model demonstrates correct spacing
* model demonstrates correct energy vectors
* explanation accurately describes energy relative to density and sea levels
* explanation uses academic vocabulary correctly (see word bank)

| FEEDBACK FOR IMPROVEMENT | **PROFICIENCY CRITERIA** | EVIDENCE FOR  EXCEEDING |
| --- | --- | --- |
|  | model demonstrates correct spacing |  |
|  | model demonstrates correct energy vectors |  |
|  | explanation accurately describes energy relative to density and sea levels |  |
|  | explanation uses academic vocabulary correctly (see word bank) |  |
|  | Research a specific community or activist and explain 2 specific ways that they are being affected by sea level rise and/or climate change. |  |
|  | At least 2 types of sources and 5-7 different total sources used |  |
|  | Visualization of data is present with appropriate scale and source of data included |  |