**Supports for Scientific Practices**

**In**

**“How Does a Cargo Ship Float?” Investigation**

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| Activity Structure | Intended Purpose/ Support for Scientific Practices |
| “What floats in the bay?” drawing and gallery walk | Connect to students’ prior knowledge; limited writing requirements/ low barrier to entry; allowed casual discussion of ideas; efficient and easy |
| Journaling: Initial ideas; I learned/ I wonder; current ideas | Allows less vocal students to validate their thinking; rehearsal of ideas; formative assessment; structured explanation/ building model of concept |
| Science discourse circle | Support an argument with evidence, data, or a model; connect to prior knowledge; evaluating and critiquing argument; model discourse in science |
| Free exploration of ideas: We think/ so we tried/ now we think | Playing is part of the process!!! Free, but focused on a question; practice with experimentation and techniques; developing questions; students invested in investigations of their own design |
| Silent gallery walks | Analyzing and interpreting data; critiquing ideas; improve ideas through additional evidence |
| Clay boat design, test, and re-design | Importance of iterative improvement/ re-design; incorporate new ideas |
| Single variable tests | Planning and carrying out tests; constructing explanations and designing solutions; obtaining, evaluating, and communicating information |
| (reading scientific explanations of buoyancy) |  |

What’s NOT there (intentionally)? Why???