




Scientific Inquiry Phases

Exploration Phase		
	<p>The <i>Exploration Phase</i> is about generating a genuine interest from students. Hands-on exploration, without knowing “how the story ends,” leads to genuine “Ah-ha!” moments throughout the scientific inquiry. The questions generated during this phase can come from the teacher and students, but ultimately, students creating their own questions will be more invested in finding answers and generating new questions to continue their learning.</p>	<p>Habits of Mind:</p> <ul style="list-style-type: none"> • Questioning • Applying Past Knowledge • Flexible Thinking • Managing Impulsivity • Learning Continually • Finding Humor • Thinking Independently • Gathering Data with All Senses • Responding with Wonder and Awe
Investigation Phase		
	<p>During the <i>Investigation Phase</i>, students either follow guided instruction or devise their own methods for gathering data to answer their questions. Students record observations, create experiments, and research others’ ideas to discover additional evidence, new questions, and new ways of looking at the world.</p>	<p>Habits of Mind:</p> <ul style="list-style-type: none"> • Striving for Accuracy • Persisting • Metacognition • Managing Impulsivity • Thinking Independently • Gathering Data with All Senses
Interpretation Phase		
	<p>The <i>Interpretation Phase</i> moves from discovery to learning with understanding. This is where students construct connections that tie together relevant evidence to make sense of some part of the world. It is a time for analysis as well as reflection and thinking interdependently. Students may find they need to investigate further, or explore a whole new area that presents itself. Eventually, students will focus on their findings and make defendable conclusions.</p>	<p>Habits of Mind:</p> <ul style="list-style-type: none"> • Applying Past Knowledge • Metacognition • Flexible Thinking • Striving for Accuracy • Managing Impulsivity • Thinking Independently • Taking Responsible Risks • Finding Humor • Responding with Wonder and Awe

Presentation Phase



Students share their conclusions in the *Presentation Phase*, sometimes with other students where they can compare the differences between their scientific inquiries. Other times, they may share with others outside their classroom. This is the phase where students can shine—communicating knowledge gained from their personal journeys. They listen attentively to feedback, because hearing and understanding another's viewpoint is important, and the discourse gives additional meaning to their learning. Lively debates may even spur further exploration and investigation.

Habits of Mind:

- Applying Past Knowledge
- Questioning
- Flexible Thinking
- Managing Impulsivity
- Learning Continually
- Finding Humor
- Thinking Independently
- Gather Data with All Senses
- Responding with Wonder and Awe