

Stage 1: Identify Evidence-Based Claim

Establish Exploratory Experience (Hands-on)

What evidence-based experience will students have that allow them to construct a scientific claim?

Materials:

Procedures:

What procedural explanations might teachers need to explain (NOT mini-content explanations)?

Safety:

Establish Content (Minds-on)

What content will students make a claim about and serve as the context for science learning?

Stage 2: Creating Conceptual Coherence

Pinpoint Phenomena that Hook Learning

- How can teachers motivate students and captivate their attention using science phenomena or relevant life experiences?
- What specific ideas or misconceptions can teachers pre-assess during the engage phase?
- What are the content-based learning targets for the lesson?
- What are the scientific practices that are learning targets for the lesson?

Use Authoritative Explanations to Extend Learning

- What underlying principles do teachers need to help students formulate?
- What “terms” and “concepts” do teachers need to introduce that are essential for understanding?
- What other terms or ideas are related to the content and considered “nice to know,” non-essential topics OR ideas that will be important in another unit?

Provide Transferring Practice

- What hands-on investigation can students have to test an idea in a new situation or build a new idea in a similar situation?

Include growth indicators for students and teachers

- How will students think about their developing knowledge?
- What assessment will be used to determine whether students have gained the necessary abilities and knowledge?