

## Grades 6-8

### MINDS-ON THEORETICAL/ CONCEPTUAL

### HANDS-ON SCIENTIFIC METHODS

#### GUIDING QUESTION

- Formulate a testable hypothesis

#### CONCLUDE/DISCUSS/EXPLAIN EVIDENCE

- Communicate procedures and results using appropriate science and technology terminology.
- Offer explanations of procedures, and critique and revise them.
- Draw conclusions based on data or evidence presented in tables or graphs, and make inferences based on patterns or trends in the data.

#### FIND PATTERNS IN DATA

- Explain data and findings using multiple representations, including tables, graphs, mathematical and physical models, and demonstrations.

#### RECORD OBSERVATIONS

- Record data

#### EXPLORE OBJECTS & EVENTS

- Design and conduct an experiment specifying variables to be changed, controlled, and measured.
- Select appropriate tools and technology (e.g. calculators, computers, thermometers, meter sticks, balances, graduated cylinders, and microscopes) and make quantitative observations.

CONSTRUCT THEORIES

LINK CONCEPTS TO PRINCIPLES

LEARN CONCEPTS  
(Perceived regularities in objects or events)