Emanuel Project
ART INTERVENTIONS FOR AT-RISK YOUTH

Scientific Method

Lesson 3: Conduct Experiment

YOUTH ART PROJECT FOR:

CONDUCT EXPERIMENT

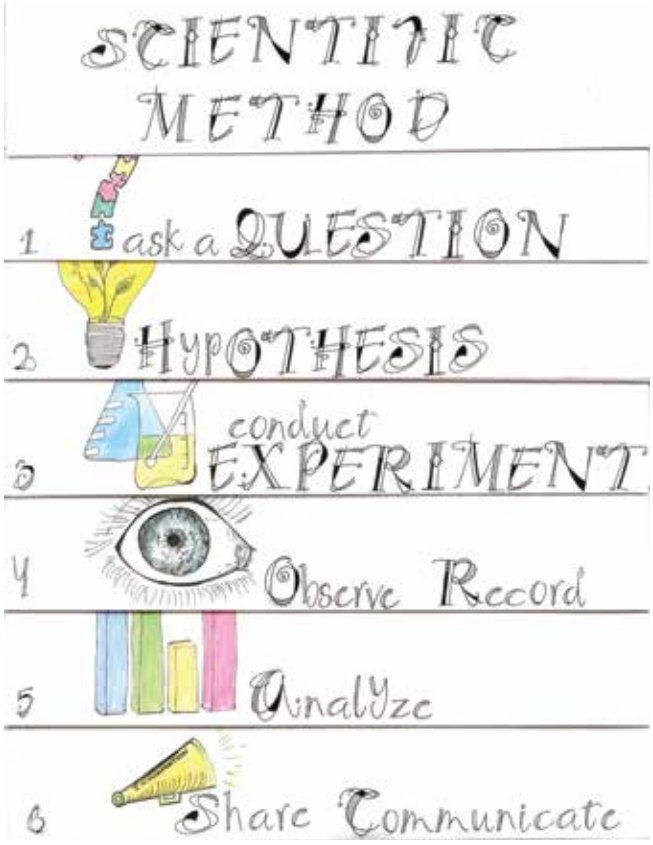
OBJECTIVE

Students will demonstrate understanding of conducting an experiment as part of the scientific method.

Set up/prep time:	Activity time:
30 minutes	2-3 hours

Materials Needed:

Colored markers, black fine point pen, pencil, eraser, paper



COMMON CORE STATE STANDARD

CCSS.ELA-Literacy.RST.6-8.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

PRE LESSON ASSESSMENT

Administer a pre lesson assessment to determine what the students already know about conducting an experiment as part of the scientific method.

VOCABULARY

Purpose, procedure

RELEVANT RESOURCES

Content

http://www.sciencebuddies.org/science-fair-projects/project_variables.shtml
http://explorable.com/conduct-science-experiments
http://www.sciencekids.co.nz/experiments.html

Art

http://www.wikihow.com/Draw-a-Scientific-Equipment
http://jeannelking.com/how-to-draw-a-magnifying-glass-in-three-easy-steps/
http://www.sciencesignup.com/flasks_beaker_science_equipment.gif

"Action is the foundational key to all success."- Pablo Picasso

Students will engage in:

- ☐ Listening
- ☐ Speaking
- ☐ Reading
- ☐ Writing
- ☐ Partner Work
- ☐ Cooperative Learning
- ☐ Whole Group Instruction
- ☐ Visuals
- ☐ Hands on
- ☐ Technology Integration
- ☐ A Project
- ☐ Centers
- ☐ Simulations
- ☐ Activities

STEP 1

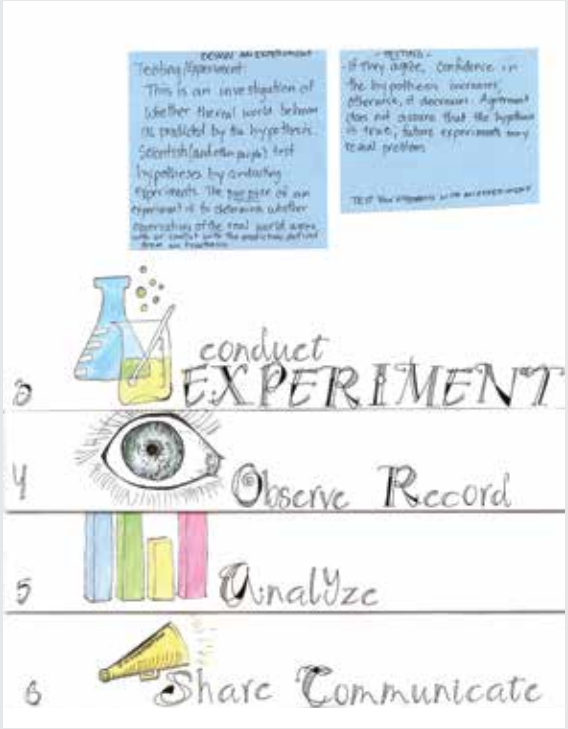
This is the fourth lesson in a unit created to teach the Scientific Method. Prior to this lesson students should have completed Lesson 2: Hypothesis. Students will be using the scientific method booklet they made in the "Introduction to the Scientific Method" lesson, and should be on the tab labeled "3." This will be step three of the scientific method. Have the students use a pencil to write the words, CONDUCT EXPERIMENT, on this tab. Instruct the students to also use a pencil to draw a symbol that can be associated with conducting an experiment.

STEP 2

Have the students trace their pencil markings with a black fine point pen and then erase any remaining pencil markings. Instruct the students to use markers to color the symbol they have chosen to represent this third step of the scientific method.

STEP 3

Have the students write on this same page of their booklet, above the tab or on a sticky note, the purpose of conducting an experiment as part of the scientific method. Instruct the students to write the procedure used in conducting an experiment completed individually or as a class. Students should also write any other information, from instruction or their own research, which they consider interesting and/or important in understanding this step of the scientific method.



POST LESSON ASSESMENT

Administer a post assessment to determine what new knowledge the students have gained.

DESIGN AN EXPERIMENT

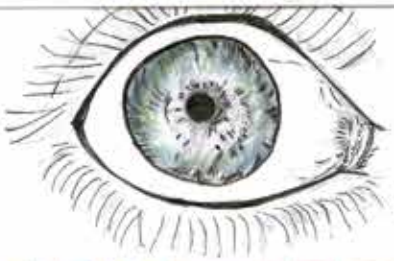
Testing/Experiment:
This is an investigation of whether the real world behaves as predicted by the hypothesis. Scientists (and other people) test hypotheses by conducting experiments. The purpose of an experiment is to determine whether observations of the real world agree with or conflict with the predictions derived from an hypothesis.

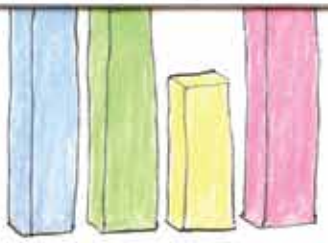
- TESTING -

- If they agree, confidence in the hypothesis increases; otherwise, it decreases. Agreement does not assure that the hypothesis is true; future experiments may reveal problems

TEST YOUR HYPOTHESIS WITH AN EXPERIMENT

3  conduct EXPERIMENT

4  Observe Record

5  Analyze

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Share Communicate