

YOUTH ART PROJECT FOR:

ANALYZE

OBJECTIVE

Students will demonstrate an understanding of what it means to analyze data as part of the scientific method.

Set up/prep time:

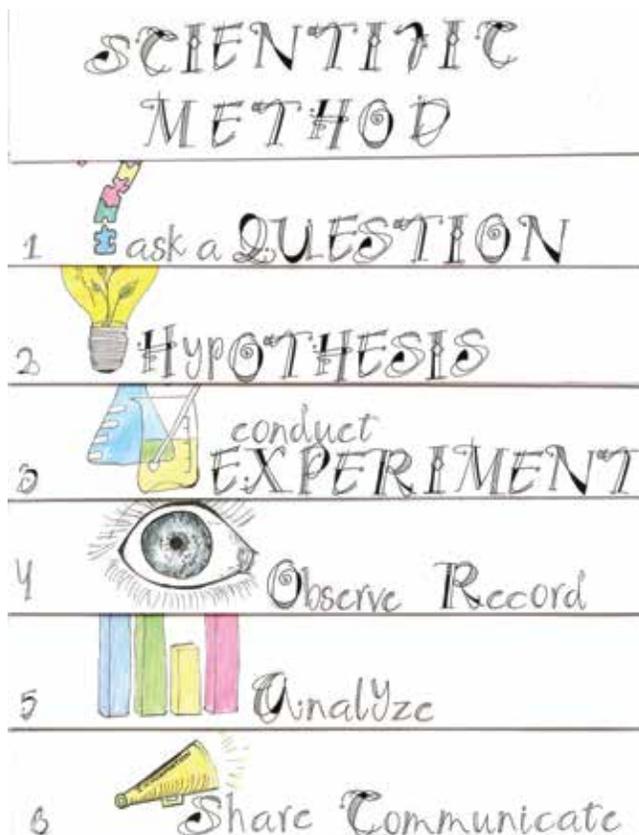
30 minutes

Activity time:

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 analyzing data as part of the scientific method.

VOCABULARY

Analyze

RELEVANT RESOURCES

Content

<http://ctb.ku.edu/en/tablecontents/chapter37/section5.aspx>

http://en.wikipedia.org/wiki/Data_analysis

http://www.sciencebuddies.org/science-fair-projects/project_data_analysis.shtml#overview

Art

<http://nces.ed.gov/nceskids/createagraph/>

<http://www.wikihow.com/Make-Bar-Graphs>

<http://www.beaconlearningcenter.com/weblessons/kindsofgraphs/>

*“Nothing is a waste of time if you use the experience wisely.”
- Auguste Rodin*

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 sixth lesson in a unit created to teach the Scientific Method. Prior to this lesson students should have completed Lesson 4: Observe and Record. 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 “5.” This will be step five of the scientific method. Have the students use a pencil to write the word, ANALYZE, on this tab. Instruct the students to also use a pencil to draw a symbol that can be associated with analyzing data.



STEP 2

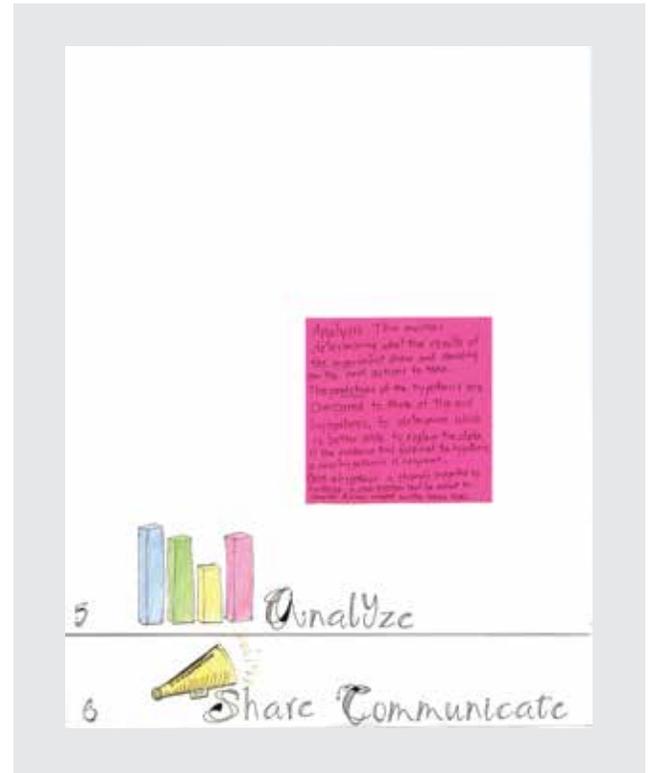
Have the students trace their pencil markings with a black fine point pen and then erase any remaining pencil markings. Instruct the students to use markers to color the symbol they have chosen to represent this fifth step of the scientific method.





STEP 3

Have the students write on this same page of their booklet, above the tab or on a sticky note, what it means to analyze data and the importance of analyzing data as part of the scientific method. Have the students write an analysis of the data they recorded from an experiment conducted individually or as a class. As part of this analysis have them determine whether or not their hypothesis was supported by the results of the experiment. 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.

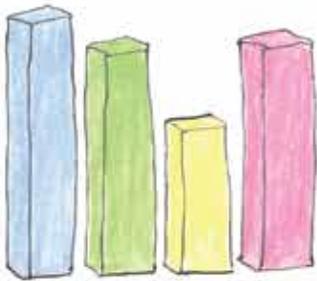


POST LESSON ASSESSMENT

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



Analysis: This involves determining what the results of the experiment show and deciding on the next actions to take. The predictions of the hypothesis are compared to those of the null hypothesis, to determine which is better able to explain the data. If the evidence has falsified the hypothesis, a new hypothesis is required. Once a hypothesis is strongly supported by evidence, a new question can be asked to provide further insight on the same topic.



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Analyze

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Share Communicate