



YOUTH ART PROJECT FOR:

# HYPOTHESIS

## OBJECTIVE

Students will demonstrate an understanding of the second step of the scientific method -creating a hypothesis - and create their own hypotheses as part of the scientific method.

Set up/prep time:

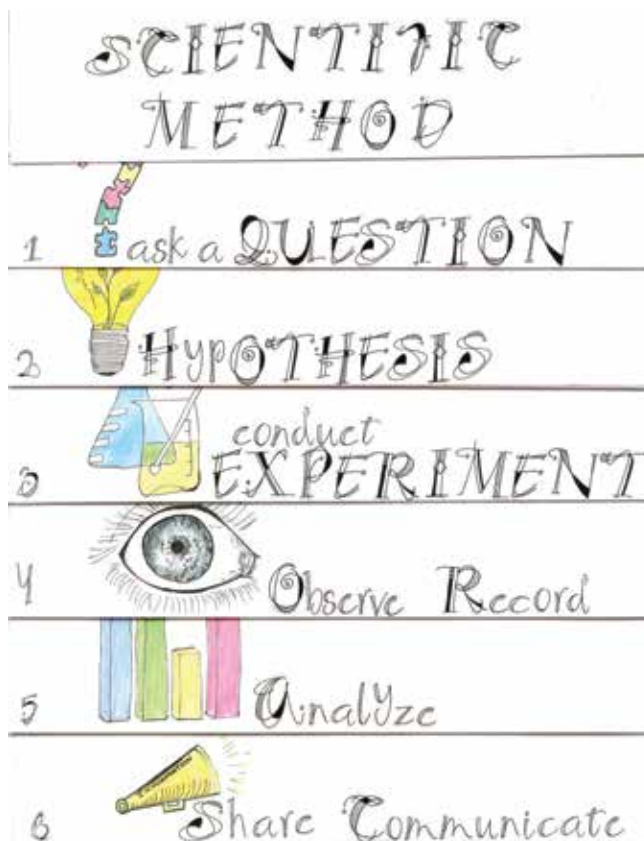
**30 minutes**

Activity time:

**2-3 hours**

Materials Needed:

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





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## COMMON CORE STATE STANDARD

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

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## PRE LESSON ASSESSMENT

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Administer a pre lesson assessment to determine what the students already know about creating a hypothesis and its importance in the scientific method.

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## VOCABULARY

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Hypothesis, prediction

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## RELEVANT RESOURCES

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### Content

[https://en.wikipedia.org/wiki/Thought\\_experiment#Theoretical\\_consequences](https://en.wikipedia.org/wiki/Thought_experiment#Theoretical_consequences)  
<http://en.wikipedia.org/wiki/Hypothesis>  
<http://www.sciencebuddies.org/blog/2010/02/a-strong-hypothesis.php>

### Art

<http://www.wikihow.com/Draw-a-Light-Bulb>  
<http://www.wikihow.com/Draw-Leaves>  
<http://www.how-to-draw-funny-cartoons.com/image-files/cartoon-light-6.gif>

*“Success is not final, failure is not fatal: it is the courage to continue that counts.”*  
-Winston Churchill

### 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 third lesson in a unit created to teach the Scientific Method. Prior to this lesson students should have completed Lesson 1: Ask a Question. 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 “2.” This will be step two of the scientific method. Have the students use a pencil to write the word, HYPOTHESIS, on this tab. Instruct the students to also use a pencil to draw a symbol that can be associated with what a hypothesis is.



## 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 second 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 they have learned about what a hypothesis is, how to formulate a hypothesis and the importance of creating a hypothesis. Have each student write his or her hypothesis for an experiment they are conducting individually or as a class. Instruct the students to include how they chose this as their hypothesis. 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.



<sup>FORMULATE A) CONSTRUCT</sup>  
Hypothesis: An Hypothesis is a conjecture, based on the knowledge obtained while formulating the question, that may explain the observed behavior of a part of our universe. The hypothesis can be very specific or it might be broad.  
A statistical hypothesis is a conjecture about some population.  
Terms commonly associated with statistical hypotheses are null hypothesis and alternative hypothesis.  
\* The alternative hypothesis is the desired outcome.



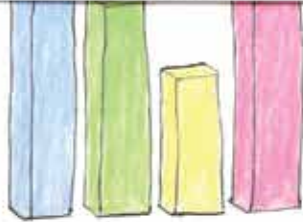
2 **HYPOTHESIS**



3 **conduct EXPERIMENT**



4 **Observe Record**



5 **Analyze**



6 **Share Communicate**