

P.H.E.O.C. Unit

Mr. Ehle – 5th Grade Science

By the end of this unit I will know:

- What P.H.E.O.C. stands for
- How to use P.H.E.O.C. to conduct an experiment
- How to properly state a scientific problem
- What a hypotheses is
- How to properly state a hypotheses
- What makes a good experiment
- How to make good observations
- How to draw conclusions based on observations
- How to write a clear, concise conclusion

I will show my understanding through:

Sign & Return

Parent Signature: _____

Student Signature: _____

Earned	Possible	Assignment	Description
	5 pts	Flinker Experiment	Completed with a partner in class.
	0 pts	Vocabulary Sheet	Completed as a class.
	10 pts	Vocabulary Flash Cards	Completed as individual.
	5 pts	Mythbusters Sheet	Completed in class.
	5 pts	SpongeBob Experiment Sheet	Completed with group in class.
	12 pts	Mystery Bag Data Sheet/Experiment	Completed with partner in class.
	20 pts	Create an Experiment	Completed as individual.
	15 pts	Test	Completed as individual.
	72 pts Possible		

I will keep some of my best work in my portfolio to share at conferences.

P.H.E.O.C. Study Guide

P – Problem

H – Hypothesis

E – Experiment

O – Observation

C – Conclusion

Vocabulary

problem	Scientific question you are trying to find the answer to.
hypothesis	Your best prediction of the answer to the problem.
experiment	A test that is set up to prove or disprove a hypothesis.
independent variable	The part of the experiment that you change.
dependent variable	The part of the experiment you are testing.
control	What you are comparing your experiment to.
constant	Things you never change in your experiment.
observation	Using one or more of your senses to collect information about your experiment.
data	The information you collect during the observation of the experiment.
conclusion	What you learned about your hypothesis from the experiment.

P.H.E.O.C. stands for the six steps of the scientific method

The problem of an experiment should be written as a question.

The hypothesis of an experiment should be written as an “if this happens, then this will happen” statement.

Data can include graphs, pictures, charts or writing.

All data is fact, not opinion.