

## Questions for *Appendix E: Introduction to the Scientific Method by Frank Wolfs*

Vocabulary: *Write short definitions for these words:*

a. formulation, formulated

b. phenomena, phenomenon

c. quantitatively

d. rejected

e. confirmation

f. incompatible

g. ramifications

h. intrinsic

i. systematic

j. proportional

k. criteria

l. perceptions

m. verification

n. endeavor

o. consensus

p. valid, validity

q. extraneous

r. arbitrary

s. predictive

t. parameters

u. derivable

v. hypothesis

w. facile

x. implies

y. concentric

z. conversely

1. The article states that the "scientific method attempts to minimize the influence of bias or prejudice in the experimenter when testing a hypothesis or a theory". Describe a situation where someone's biases might affect their experimental results.
2. According to this article, what are some of the sources of errors in experiments?
3. What is a model?
4. What is the difference between random error and systematic error in an experiment?
5. In your own words, restate the four steps of the scientific method.