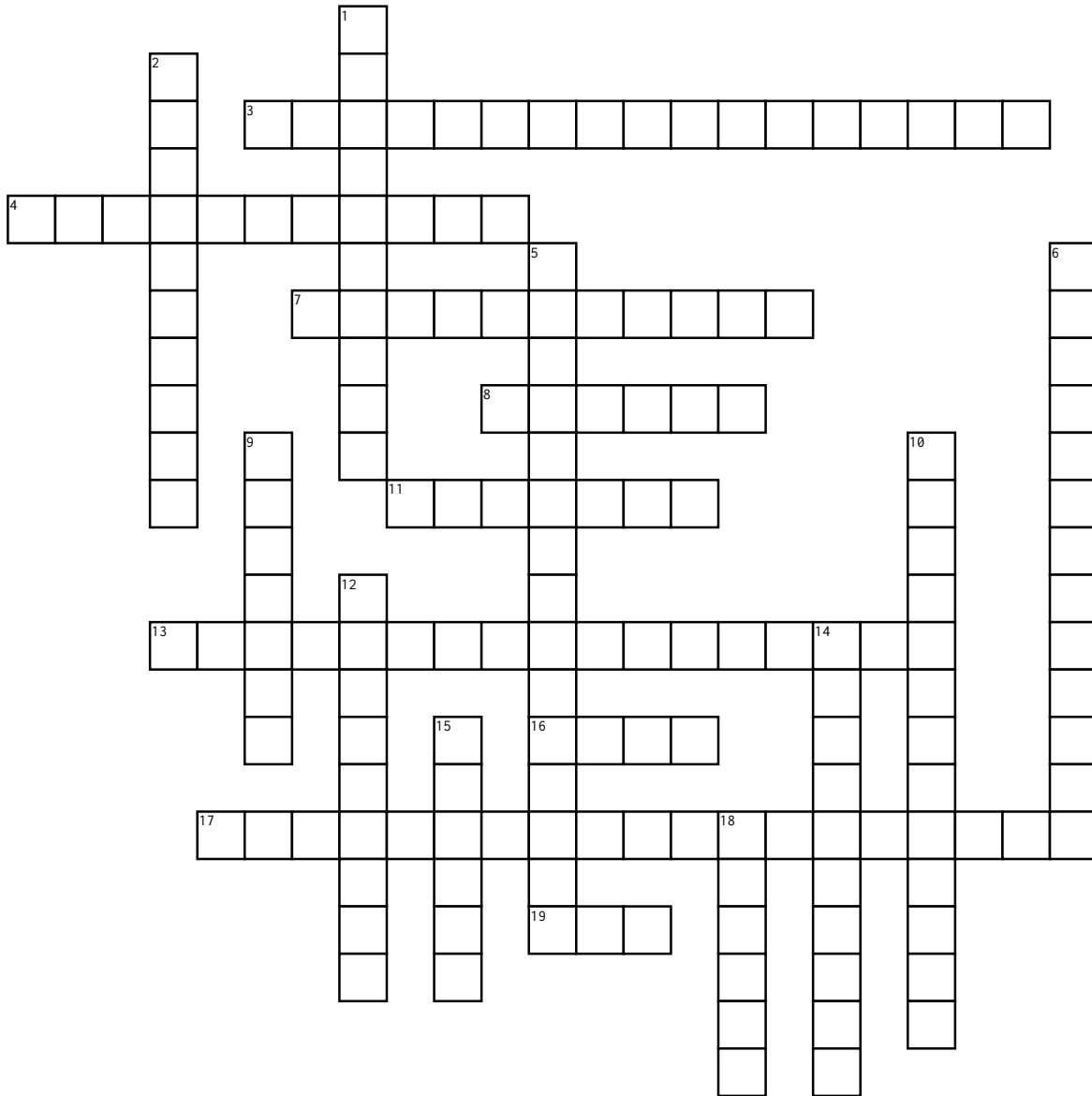


# Nature of Science Choice Board #1



**Across**

- 3. The dependent variable is the variable being tested and measured in an experiment, and is 'dependent' on the independent variable.
- 4. the action or process of observing something or someone carefully or in order to gain information.
- 7. the action of copying or reproducing something.
- 8. The most common definition of weight found in introductory physics textbooks defines weight as the force exerted on a body by gravity
- 11. A scientific control is an experiment or observation designed to minimize the effects of variables other than the independent variable. This increases the reliability of the results, often through a comparison between control measurements and the other measurements.
- 13. The process of the scientific method involves making conjectures (hypotheses), deriving predictions from them as logical consequences, and then carrying out experiments or empirical observations based on those predictions

- 16. Mass is both a property of a physical body and a measure of its resistance to acceleration (a change in its state of motion) when a net force is applied.
  - 17. The independent variable is the variable the experimenter changes or controls and is assumed to have a direct effect on the dependent variable.
  - 19. Scientific laws or laws of science are statements, based on repeated experiments or observations, that describe or predict a range of natural phenomena.
- Down**
- 1. a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation.
  - 2. the action of repeating something that has already been said or written.
  - 5. A scientific model is a physical and/or mathematical and/or conceptual representation of a system of ideas, events or processes. Scientists seek to identify and understand patterns in our world by drawing on their scientific knowledge to offer explanations that enable the patterns to be predicted

- 6. a collection of beliefs or practices mistakenly regarded as being based on scientific method.
- 9. the degree of compactness of a substance.
- 10. the action of investigating something or someone; formal or systematic examination or research.
- 12. a conclusion reached on the basis of evidence and reasoning.
- 14. a scientific procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known fact
- 15. A scientific theory is an explanation of an aspect of the natural world that can be repeatedly tested and verified in accordance with the scientific method
- 18. Volume is the quantity of three-dimensional space enclosed by a closed surface