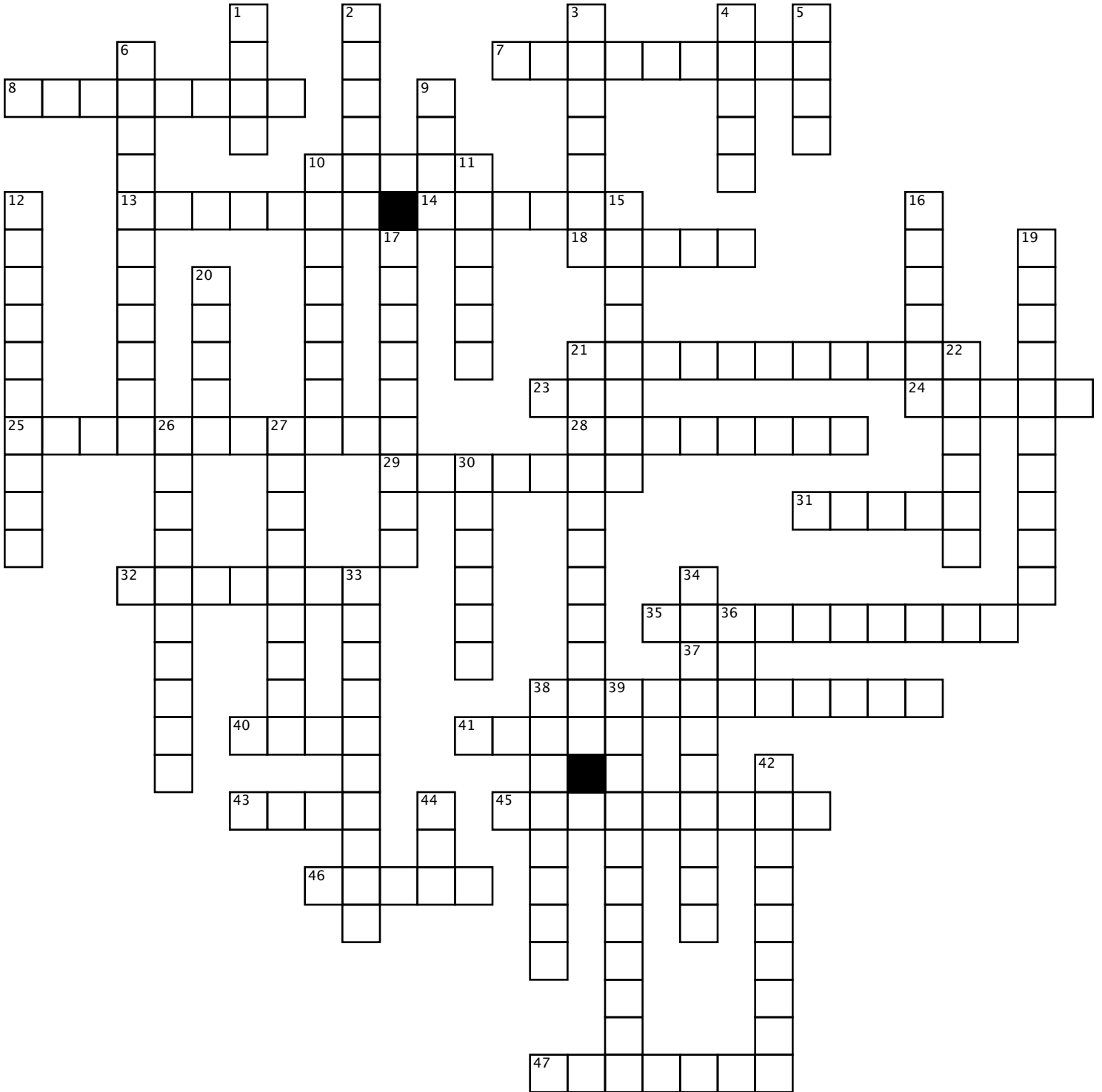


Chapters 1 & 2: Measurement & the Scientific Process

Integrated Science: Physics & Engineering Design

Name _____ Per _____



Across

7. Working model of a design that can be tested to see if it works
8. Factor that affects how an experiment works
10. Each time an experiment is tried
13. Process of learning that starts with asking questions
14. Way of learning that often begins with a hypothesis and seeks to test the hypothesis by comparing it with scientific evidence. The Scientific ____.
18. 1 ____ year is the distance that light travels through space in 1 year
21. another name for independent variable
23. The SI system of measurements is a base ____ system, so it is easy to convert units
24. 1/1000th of the base SI unit
25. Graph used to determine if 2 variables are related
28. How close a measurement is to the true value.
29. relationship between variables where one variable decreases when another variable decreases when another variable increases
31. The SI unit of volume for solid objects is the ____ meter.
32. The US, Burma and Liberia are the only 3 countries on the planet that use ____ units as their official system of measure.
35. evidence that can be seen independently by others if they repeat the same experiment in the same way
37. International System of Units
38. variable that may influence another variable, often deliberately changed by the experimenter
40. a fixed amount of something
41. 1/100th of the base SI unit
43. graph that shows trends in data over time
45. variable that may be influenced by the independent variable
46. 1/1,000,000th of the base SI unit
47. SI unit of temperature

Down

1. 1000 of the base SI unit
2. Scientific explanation supported by lots of evidence collected over a long period of time
3. ____ variables are variables that the experimenter keeps the same.
4. The engineering ____ is a process used to build and test devices that solve technical problems.
5. ____ review means that scientific papers will only be published if the work is reviewed and approved by other scientists with similar expertise.
6. The meaningful digits in a measured quantity are ____ digits.
9. The base SI unit of mass is the ____.
10. The most important tradition in science is ____ reporting.
11. A meter is the SI unit of ____.
12. A ratio that has a value of 1 is a ____ factor
15. Amount of space between 2 points
16. Group of variables that are related
17. Evidence that documents only what happened as exactly as possible
19. Refers to the smallest interval that can be measured
20. The measured quantity 3.45 cm has ____ significant digits.
21. A determination of the amount of something
22. relationship between variables where one variable increases with an increase in another variable
26. Application of science to solve problems or meet human needs
27. How close repeated measurements are to each other
30. The liter is a unit of ____.
33. Possible explanation for observations. Can be tested.
34. another name for the dependent variable
36. graph that is circular and shows how a whole is divided into percents
38. A quantity of time
39. Converting units using conversion factors and unit cancelling is called ____ analysis
42. People who design technology to solve problems
44. graph that compares groups of information