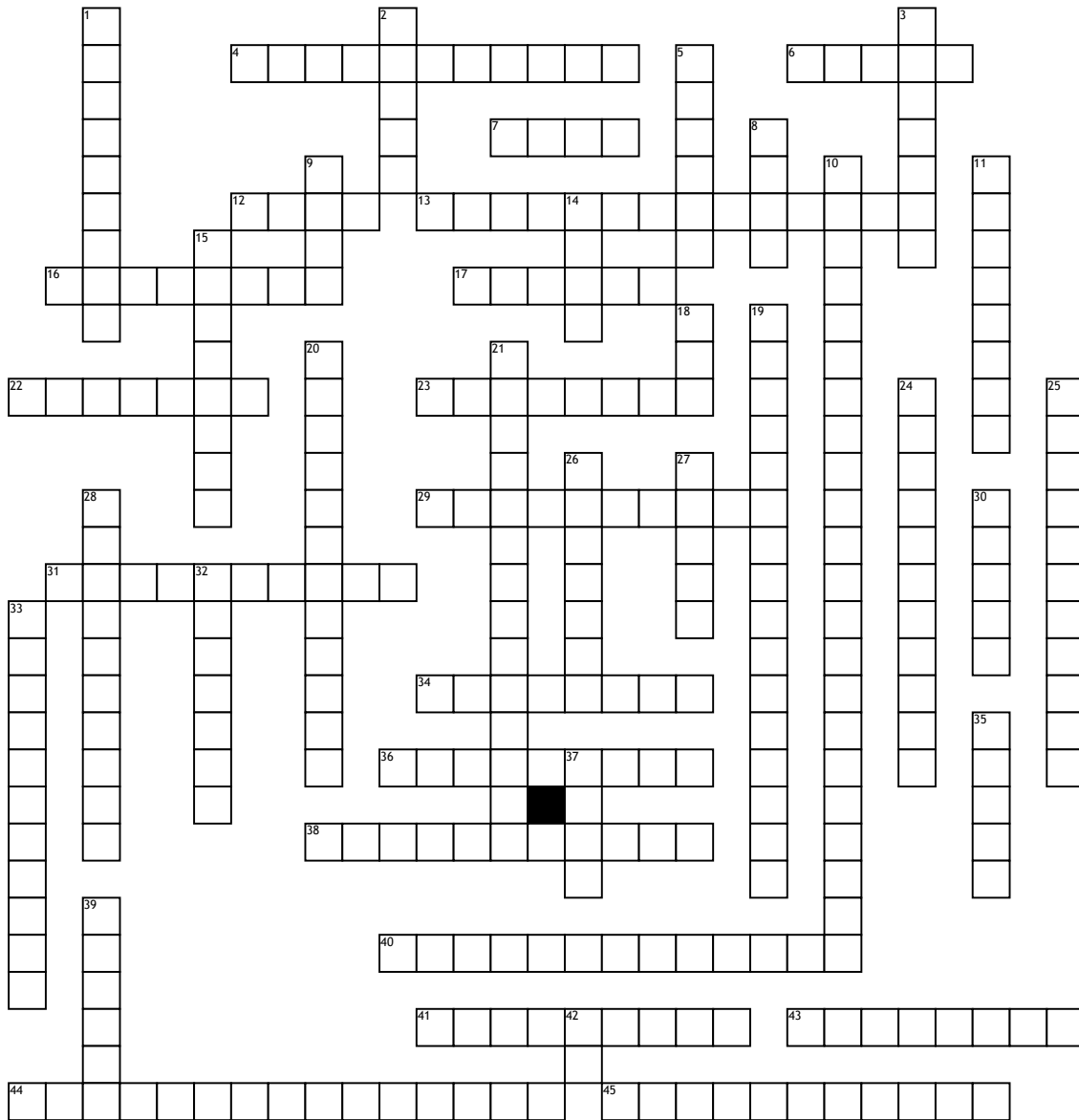


Name: _____

Properties of Water and Cycles



Across

- 4. Having an affinity for water.
- 6. The organic circulation of carbon from the atmosphere into organisms and back again carbon
- 7. A substance that decreases the hydrogen ion concentration in a solution. pH will be higher than 7
- 12. smallest basic unit of matter
- 13. A measure of how difficult it is to stretch or break the surface of a liquid
- 16. substance formed by the chemical combination of two or more elements in definite proportions
- 17. because atmospheric N₂ cannot be used directly by plants it must first be converted into ammonia (NH₃) by bacteria (rhizobium) nitrogen
- 22. A substance produced in a chemical reaction
- 23. Attraction between molecules of the same substance
- 29. Protective layer in atmosphere that shields earth from UV radiation made up of O₃
- 31. the envelope of gases surrounding the earth or another planet
- 34. An attraction between molecules of different substances
- 36. the solid part of the earth consisting of the crust and outer mantle including all rocks and minerals
- 38. A tendency to maintain a balanced or constant internal state; the regulation of any aspect of body chemistry, such as blood glucose, around a particular level
- 40. Evaporation of water from the leaves of a plant
- 41. part of Earth in which life exists including land, water, and air or atmosphere

43. A chemical substance that is present at the start of a chemical reaction

44. Conversion of nitrates into nitrogen gas

45. Cycle whereby natural processes and human activity consume atmospheric oxygen and produce carbon dioxide and the Earth's forests and other flora, through photosynthesis, consume carbon dioxide and produce oxygen.

Down

- 1. A chemical change in which a substance combines with oxygen, as when iron oxidizes, forming rust
- 2. describes a molecule in which the positive and negative charges are shared unequally
- 3. A pure substance made of only one kind of atom
- 5. A substance that is dissolved in a solution.
- 8. A chemical bond resulting from the attraction between oppositely charged ions. Ionic
- 9. A chemical bond formed when two atoms share electrons Covalent
- 10. The amount of heat necessary to cause a phase transition between a liquid and a gas; Large amount of heat is needed to vaporize liquid
- 11. Rain containing acids that form in the atmosphere when industrial gas emissions (especially sulfur dioxide and nitrogen oxides) combine with water.
- 14. A substance that increases the hydrogen ion concentration of a solution. pH will be less than 7
- 15. smallest unit of most compounds
- 18. An atom or group of atoms that has a positive or negative charge.
- 19. Property of water due to the polarity and ability to dissolve many different solutes
- 20. a bond formed between hydrogen and a slightly charged covalently bonded atom such as Oxygen
- 21. Conversion of light energy from the sun into chemical energy.
- 24. all the waters on the earth's surface, such as lakes and seas, and sometimes including water over the earth's surface, such as clouds.
- 25. Process that releases energy by breaking down glucose and other food molecules in the presence of oxygen cellular
- 26. plants of the bean and pea family, with seeds that are rich in protein compared with other plant-derived foods
- 27. The movement of phosphorus atoms from rocks through the biosphere and hydrosphere and back to rocks. phosphorus
- 28. The continuous process by which water moves from Earth's surface to the atmosphere and back
- 30. process in which elements, chemical compounds, and other forms of matter are passed from one organism to another and from one part of the biosphere to another biogeochemical
- 32. A liquid substance capable of dissolving other substances
- 33. Having an aversion to water; tending to coalesce and form droplets in water.
- 35. The transfer of nitrogen from the atmosphere to the soil, to living organisms, and back to the atmosphere nitrogen
- 37. A property of water. Water can absorb lots of heat before changing temperature high specific
- 39. tendency of water to rise in a thin tube due to adhesion and cohesion capillary
- 42. level of hydrogen ion concentration found in a substance falling on a scale of 0-14