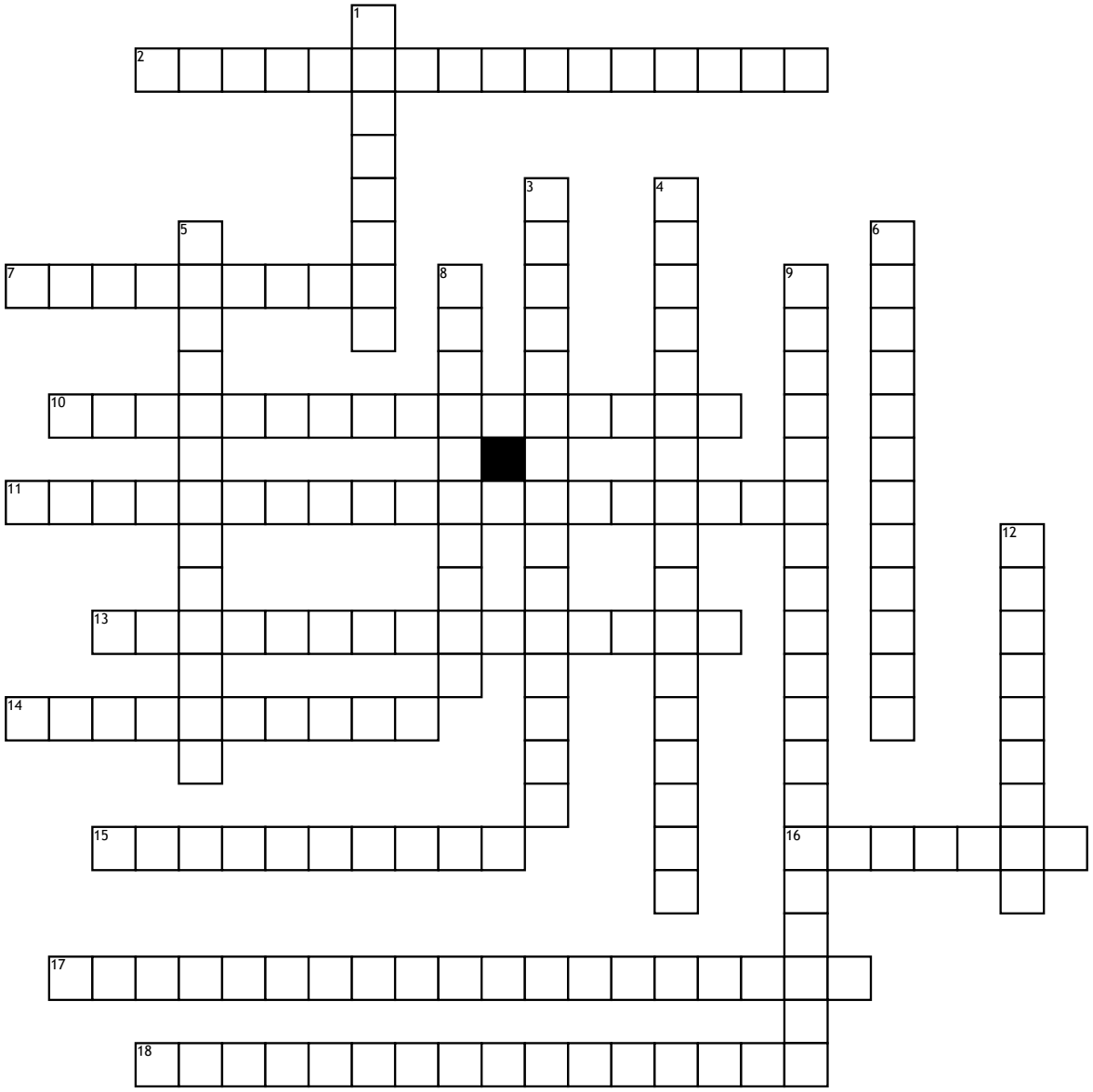
Name: _____ Date: _____

Properties of the Materials



Across

2. The increase in material volume in response to a heat input

7. The ability to absorb impact force without fracture

10. Prevents the transfer of heat through the material

11. Does not allow the flow of electricity through the material

13. The ability to resist forces that may bend the material

14. The ability to be permanently deformed and retain the deformed shape

15. The ability of the material to be fused or converted from a solid to a liquid or molten state

16. The mass of the material in a standard volume of space

17. The ability to withstand being crushed or shortened by pushing forces

18. Allows the transfer of heat energy through the material

Down

1. The ability to resist abrasive wear such as scratching, surface indentation or cutting

3. The ability to resist stretching or pulling forces

4. The ability to withstand twisting forces from applied tension or torque

5. The ability to resist sliding forces on a parallel line

6. The ability to withstand deformation by compression without cracking

8. The ability to be deformed and then return to the original shape when the force is removed

9. Allows the flow of electrical current through the material

12. The ability to be drawn out under tension without cracking