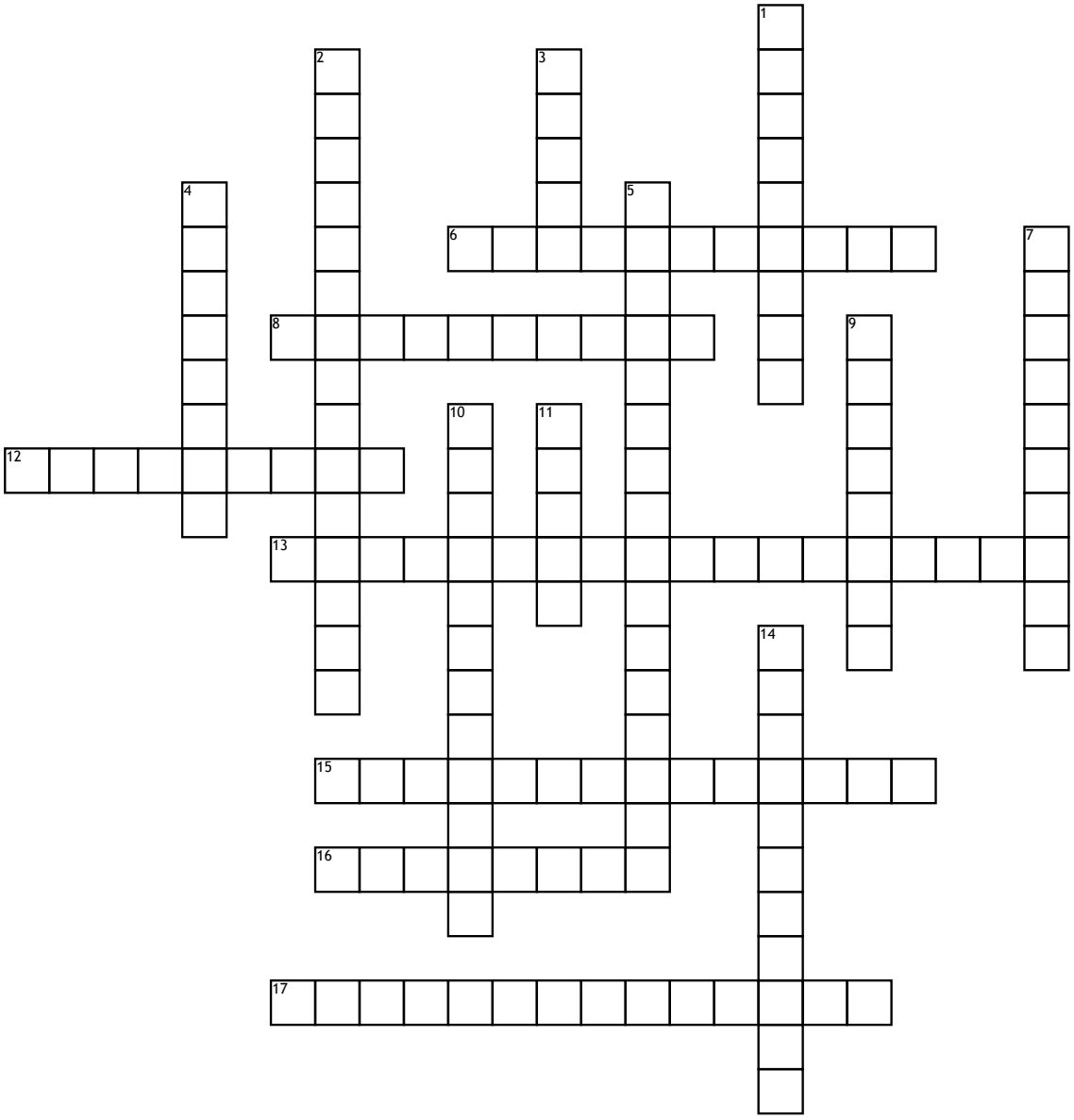
Name: _____ Date: _____

Immunity



Across

6. responsible for activating immature T and B cells and phagocytes

8. activated B cell that produces many antibodies capable of destroying a specific pathogen

12. large vesicle found in a phagocyte where pathogens are transported and destroyed by hydrolytic enzymes.

13. region on an antibody to which an antigen binds

15. activated T cell capable of destroying a specific pathogen

16. a protein produced by lymphocytes in response to the presence of the appropriate antigen.

17. the tips of the 'Y' shape of an antibody that have a structure complementary to the antigen they bind to and so are different for each type of antibody

Down

1. type of white blood cell involved in non-specific immunity. Acts by engulfing and digesting pathogens.

2. immunity governed by B cells

3. type of white blood cell that is produced in the bone marrow they coordinate the immune response and kill infected cells.

4. structure (normally a protein) on the surface of a cell capable of binding to and so detecting another molecule

5. immunity governed by T cells.

7. B cells that remain in the blood for a long time after infection

9. any microorganism that causes disease.

10. mechanism by which cells engulf particles to form a vesicle or a vacuole

11. a group of genetically identical cells or organisms formed from a single parent as the result of asexual reproduction or by artificial means

14. the introduction of a vaccine containing appropriate disease antigens into the body, by injection or mouth, in order to induce artificial immunity