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Immunity

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| **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 |