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| **What will we be learning?**  **GCSE Unit:** **Infection and Response** | **Why this? Why now?**  **GCSE Course:**  AQA Separate Biology  **What other GCSE Science units does this unit relate to?**  **Cells** – 4.1.1 prokaryotes and bacteria structure, 4.1.2 cell division  **Organisation** – 4.2.2.6 non-communicable disease, 4.2.2 blood  **Inheritance, Variation and Evolution** – 4.6.3.4 resistant bacteria  **Ecology** – 4.7.1 adaptations, 4.7.2 decomposition | **Key Words:**  communicable diseases  microorganisms  pathogens  bacteria  virus  protist  fungi  binary fission  antibiotics  painkillers  vaccination  immunity  antibiotic resistance  malaria  vector  immune system  phagocyte  lymphocyte  antibody  antigen  antitoxin  pre-clinical testing  clinical testing  placebo  double blind trials  penicillin  monoclonal antibodies  hybridoma cell |
| **What will we learn?**  **Useful equations/formulae/maths skills for this unit:**  Interpreting graphs and data on diseases  Calculating cross-sectional areas of colonies on petri dishes using 𝜋r2  **Misconceptions in this topic**  Self isolating prevents all infectious disease – no, only works for infectious diseases that are passed form person to person contact or are airborne.  Antibiotics kill viruses as well as bacteria – no, antibiotics only work on bacteria as they can not enter cells where viruses reproduce.  Bacteria make you ill – no, it is the waste and toxins they produce when they reproduce that make you ill and not all bacteria are harmful. | |
| **What opportunities are there for wider study?**  **If you are interested in this unit, what careers does it relate to?**  pharmacist, immunologist, doctor, nurse, paramedic, epidemiologist, environmental health officer, public health, NHS and medical careers, dentist, gardener, horticulturist, botanist, microbiologist, veterinarian  **Collins Revision guide relevant pages for this unit:**  P.34-41, 64-67 and 94-97 | |
| **How will I be assessed?**  **Deep Marking Task Title for this unit:** Human Immune System – Leaflet for patients | |