**Project Phases**

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| **Focus 1** | Diseases through history |
| **Focus 2** | How diseases are spread |
| **Focus 3** | How diseases affect our bodies |
| **Focus 4** | How can diseases be prevented and cured |
|  | Christmas |

**Essential Question:** How can we as scientists cure the disease?

**Project & Exhibition:** Create a vaccine to promote at a medicine conference

**Enhancements:** Trip to Thackray Museum of medicine Leeds. Visitors from local chemical companies (Mr Cox)

**Project Based Learning Timeline**

Year 6

Term 1

2015-2016

**Hook**

Film clip ‘Contagian’ pupils to have caught a disease and need to be in quarantine (pupils to eat lunch in different area & so on) Eyam village type drama. Pupils to make a news report of events. Mystery disease- we have to cure it!! (Project links back to curing the disease.)

Book of the term- Mystery of London Blue Death and a boy called Eel

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| **Focus 1**  Diseases through history |
| **Drivers:** inspire, immerse, enterprise, 21st century life, being your best, enquiry, community, world wise |
| **Focus Outcome:** To understand how the beliefs and cures of diseases have changed through history.   |  |  |  | | --- | --- | --- | | **Basic**  Can you list how medicine has improved? | **Advancing**  Can you predict how cures will improve in the future? | **Deep**  Do we rely on prescription medicines too much? |   **Subjects and Opportunities**:  Geography: Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.  **Writing:** Write recounts. Black Death Diary  **Writing:** Write non-chronological reports.  **Writing:** Write poems that convey an image  **History:** A study of a theme in British history  **Maths:** Use the properties of shapes and angles in increasingly complex and practical contexts, including in construction and engineering contexts  **Activities:**  Research pandemics in history  Order a timeline of diseases & pandemics  Research about the Black death & write a diary as someone living in this time.  Poem about black death (Ring a ring of roses)  Write a non-chronological report about a disease from the past.  Make a 3D molecule of a bacteria cell |
| **Focus 2**  How diseases are spread |
| **Drivers:** inspire, immerse, enterprise, 21st century life, being your best, enquiry, community, world wise |
| **Focus Outcome:**  Understand what influences the spread of bacteria/disease/pandemics   |  |  |  | | --- | --- | --- | | **Basic**  Can you name influences that help the spread of diseases? | **Advancing**  Can you explain how the spread of disease can be reduced? | **Deep**  Can you devise a plan to limit the spread of a disease? |   **Subjects and Opportunities**:  **Science:** Look at classification of plants, animals and micro-organisms  **Science:** Working scientifically  **Maths:** Count and calculate in increasingly complex contexts, including those that cannot be experienced first hand  **Writing:** Write formally (as a scientist)  **Activities:**  Experience to see how disease can spread (fair testing)  Grow yeast to represent growth of bacteria  Data handling (bar, pie, line graphs) to show growth of bacteria  Stop frame animation of mould growth to show how it develops.  Compare good and bad bacteria and mould, ie penicillin, yogurt, cheese. Link to recreational and prescription drugs PSHE  Natural drugs/plants |
| **Focus 3**  How diseases affect our bodies |
| **Drivers:** inspire, immerse, enterprise, 21st century life, being your best, enquiry, community, world wise |
| **Focus Outcome:**  Understand the ways in which the human body works and how various diseases affect it.   |  |  |  | | --- | --- | --- | | **Basic**  Can you name the major organs of the human body? | **Advancing**  Can you identify the major organs of the human body? | **Deep**  How can we keep our body healthy? |   **Subjects and Opportunities**:  **Maths:** Rigorously apply mathematical knowledge across the curriculum, in particular in science, technology and computing.  Gather, organise and interrogate data.  **Science:** Look at nutrition, transportation of water and nutrients in the body, and the muscle and skeleton system of humans and animals  Look at the digestive system in humans  Look at teeth  Look at the human circulatory system  **Writing:** Write persuasively. Write poems that convey an image  **Activities:**  Investigate human bodies to have an excellent understanding of how they work in order to think of how to make a vaccine to repair damaged bodies  Measuring parts of the human body |
| **Focus 4 Cures and preventions** |
| **Drivers:** inspire, immerse, enterprise, 21st century life, being your best, enquiry, community, world wise |
| **Focus Outcome:**  Create a vaccine to cure a disease   |  |  |  | | --- | --- | --- | | **Basic**  Can you recognise the features of a persuasive text? | **Advancing**  Can you explain different persuasive techniques? | **Deep**  What do you need to include in your persuasive text? |   **Subjects and Opportunities**:  **Writing:** Write persuasively.  **Writing:** Write stories that contain mythical, legendary or historical characters or events.  **Communicate:**  Speak to small and larger audiences at frequent intervals.  **Art and Design:**  Use experiences, other subjects across the curriculum and ideas as inspiration for artwork.  **Maths:** Use the properties of shapes and angles in increasingly complex and practical contexts, including in construction and engineering contexts.  **Computing:** Design and write programs that accomplish specific goals.  **Computing:** Use sequence, selections and repetition in programs. Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.  **Activities:**  Packaging for vaccine. Include addictive element!  Write adverts/posters & a persuasive letter to medical council about their ‘product’  Make a health standard film on behalf of the government  Write a story set in a time/pandemic of their choice with flash back  Create a computer game, using Scratch or Floors, to collect elements |