**Viruses Pathfinder Honour**

**Level 2**

1. What does the word virus mean? Is it a living organism?

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1. What are the characteristics of viruses and why are they not included in any kingdoms?

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1. Describe or draw some of the morphological shapes of viruses and give an example of each.
2. Why are vaccines important? And how do they work?

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1. How do viruses reproduce? What are mutations and viral resistance?

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1. Which viral diseases have been eradicated? Why is it difficult to eradicate disease?

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1. Why is it difficult to treat patients with viral diseases?

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1. What is the difference between the cold and the flu? Why does influenza cause periodic epidemics?

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1. What is the difference between a virus and a prion? What disease is caused by a prion?

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Homework:

1. Through pictures, video, or detailed descriptions, explain the difference in the following exanthematous or rash diseases:

a. Rubella

b. Measles

c. Chickenpox

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| **DISEASE** | **RUBELLA** | **MEASLES** | **CHICKENPOX** |
| Transmission |  |  |  |
| Symptoms |  |  |  |
| Complications |  |  |  |
| Treatment |  |  |  |
| Picture or description |  |  |  |

1. Choose three of the following viral diseases and describe their form of infection, symptoms and prevention. Demonstrate your learning creatively through a display, presentation, or prepared speech:

a. Cholera

 b. Herpes

 c. AIDS

d. Mumps

e. Poliomyelitis

f. Meningitis

g. Hepatitis

h. Dengue

1. Do one of the following:

a. Give a brief report about a viral pandemic and the impact it had / is having on the world. b. Create a skit, multimedia presentation, or other interactive display that informs a 3rd world audience to the danger of one or more of these viruses and gives them training in how to combat or control the virus.

c. Have an Aid/relief worker give a talk or presentation about epidemics and virus control in third-world countries. Raise money as a group to support aid relief in the country/(ies) the worker tells you about.