**6.9 Viruses**

Passage:

**Code Nonfiction**

Circle vocab words

Underline definitions

! interesting

\* important

? you have a

 question or

 wonder about

 Viruses are non-living because they cannot reproduce without the help of another organism, called the host. An example of a virus is the common cold. The virus has a core of DNA or RNA that contains instructions for how the virus operates. Outside of the virus is covered in proteins surrounds the DNA or RNA core, called the coat. \*Symptoms of viruses can be seen all over the body: body aches, fever

 Antiviral drugs can shorten a viral infection but each drug works on only one type of virus, but only our immune system can kill a virus. Vaccines can prevent viral infection but are not useful once infected. Vaccines are made from weakened or killed viruses which trains the body's immune system to recognize the substance as foreign, destroy it, and "remember" it. Antibiotics DO NOT work for viral infections.

 \*Leukocytes kill the host cell to prevent the virus from reproducing and produce antibodies against the virus so if infection occurs in the future, the virus will be destroyed before causing illness.

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| viruseshostcoatantiviral drugsvaccinesantibodies |  |

What is one new thing that you learned today?

G**uided Practice:**

1. Labelthe virus at the right using the following terms: protein coat and genetic material.
2. If a virus is non-living and cannot reproduce alone, how does a virus continue to exist?
3. What is a vaccine and how does it prevent viral infections?

**Independent Practice:**

1. What type of pathogen causes the common cold? What is happening inside of someone’s body that makes them feel sick?
2. After a person has a viral infection, what can be used to treat the infection?
3. Why would a doctor not prescribe an antibiotic to someone with a cold?
4. Once a person has a virus, why can they not get it again?

What can we do to prevent catching a virus?

1. How does a virus reproduce?
2. Human immunodeficiency virus (HIV) has killed millions of people throughout the world in the last 30 years. HIV attacks the cells of the immune system. Why is this a problem for people infected with HIV?

Practice:

**P1. Lexa has the following symptoms of a cold:**

**• Coughing**

**• Sneezing**

**• Headache**

**• Sore throat**

**Which describes how Lexa contracted this cold?**

A. Lexa ate food with a fungus in it, which traveled to major organs in her body.

B. Lexa inhaled a virus, which traveled to respiratory tissue and interfered with normal breathing function.

C. Lexa walked barefoot in soil containing a parasitic worm. The worm imbedded itself in her skin and sent toxin throughout her body.

D. Lexa touched an object covered with a bacterium. The bacterium penetrated her skin and traveled to her lungs through her blood system.

**P2. Matt is allergic to mold. Which of these describes how mold affects Matt?**

A. Matt inhales mold spores that irritate respiratory tissue, causing him to sneeze.

B. Matt eats food made from mold, causing an ulcer to develop in his stomach.

C. Matt touches mold that burrows into his skin, causing swelling and a rash.

D. Wind blows the mold in Matt’s eyes, causing blurry vision.

**P3. A certain virus causes people to catch colds and other infections more easily.**

**Which body system does the virus affect?**

A. Circulatory

B. Digestive

C. Immune

D. Nervous