

## **LESSON PLAN: BIRD FLU: THE NEXT PANDEMIC?**

### **Bird Flu Project Guidelines**

You have spent time learning about what a virus is, how it is spread, and how vaccines are developed for preventing viral illnesses. In addition, you have studied information specifically related to bird flu, caused by the H5-N1 virus.

Choose a project from the list below. Using what you have learned in class along with the online resources listed below and other research you conduct, create a project that demonstrates what you have learned about the science surrounding the H5-N1 virus and the potential for a bird flu pandemic. Your project should be high quality and based on research and facts. You should be able to clearly explain your project to classmates when they are shared in class.

### **Project Choices**

1. Create a map that shows the regions of the world where bird flu cases have been documented. On this map, indicate when the bird flu first appeared, how many people were affected, and what the mortality rate was from the disease. You should also include information about what was done to halt the spread of the disease in each region/country. Your map should include a title, clear labels, and a legend. It should be done in color and easily read.
2. Create a diagram or flow chart that documents the procedures that will need to be followed as scientists work to develop a vaccine for bird flu. Outline the major steps in the process and describe what happens during each step. Include a picture or graphic of some sort to illustrate what goes on during each step of the vaccine development process.
3. Create a model, flow chart, or diagram that explains the mutation process viruses go through as they change over time. Explain each step of the process and what happens as a virus goes from being transferable from animals to humans to being transferable from human to human.
4. Create a diagram or model of a virus and explain how it uses the living host to sustain itself and reproduce and how this causes the living host to become ill.
5. Create an informational display, pamphlet, or poster that could be used to educate people worldwide about bird flu. Include signs and symptoms of the disease, ways the disease is spread, activities to avoid if you don't want to risk infection, and preventive measures people can take to keep from getting the disease.

6. Conduct research about what governments on a world, national, state, and local level are doing to prepare for a bird flu outbreak. Using these as a guide, create an action plan that could be used by your school in the event of a bird flu epidemic.
7. Create a project of your own choice related to bird flu, viral diseases, vaccinations, or other relevant topics. Write your project idea below and get it approved by the teacher before you begin.

## **Online Resources**

### **Online NewsHour Articles**

"Assessing the Bird Flu Crisis"

[http://www.pbs.org/newshour/bb/health/july-dec05/flu\\_10-20.html](http://www.pbs.org/newshour/bb/health/july-dec05/flu_10-20.html)

"Bird Flu"

[http://www.pbs.org/newshour/bb/health/jan-june05/flu\\_5-26.html](http://www.pbs.org/newshour/bb/health/jan-june05/flu_5-26.html)

"Fatal Flu"

[http://www.pbs.org/newshour/bb/health/jan-june05/flu\\_4-7.html](http://www.pbs.org/newshour/bb/health/jan-june05/flu_4-7.html)

"Bird Flu Outbreak"

[http://www.pbs.org/newshour/bb/health/jan-june04/birdflu\\_1-27.html](http://www.pbs.org/newshour/bb/health/jan-june04/birdflu_1-27.html)

"The Avian Flu Pandemic"

[http://www.pbs.org/newshour/bb/health/july-dec05/flu\\_10-5.html](http://www.pbs.org/newshour/bb/health/july-dec05/flu_10-5.html)

### **NewsHour Extra**

"Health Officials Prepare for Bird Flu Pandemic"

[http://www.pbs.org/newshour/extra/features/july-dec05/birdflu\\_10-12.html](http://www.pbs.org/newshour/extra/features/july-dec05/birdflu_10-12.html)

### **Washington Week**

"Bird Flu Drug Ineffective"

<http://www.pbs.org/weta/washingtonweek/voices/200510/1017world0.htm>

### **Secrets of the Dead**

"Killer Flu"

[http://www.pbs.org/wnet/secrets/case\\_killerflu/clues.html](http://www.pbs.org/wnet/secrets/case_killerflu/clues.html)

### **The Children's Hospital of Philadelphia**

"How Are Vaccines Made?"

<http://www.chop.edu/consumer/jsp/division/generic.jsp?id=75749>

### **Centers for Disease Control and Prevention**

"Avian Influenza (Bird Flu)"

<http://www.cdc.gov/flu/avian/index.htm>

### **World Health Organization**

"Avian Influenza Frequently Asked Questions"

[http://www.who.int/csr/disease/avian\\_influenza/avian\\_faqs/en/index.html](http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/index.html)