LAB/ACTIVITY

Evaluate: CSI and Frankenfood

THE ACTIVITY

1. There are a series of 8 stations with articles and/or videos. Make your way through each station and answer the questions below based on your reading/viewing.

FOLLOW UP QUESTIONS

Answer the following questions in your journal using complete sentences.

<u>Station 1 - FOOD: Genetically Modified Food (pro)</u> (1 article, 1 video: GM Documentary Pro)

- 1. Do we need genetically modified food? Why or why not?
- 2. What are the health benefits of GM food?
- 3. What is an herbicide?
- 4. What are the benefits of having plants that cannot be killed by herbicides?
- 5. What is the best argument (reason) for genetically modified foods?

Station 2 - FOOD: Genetically Modified Food (con) (1 article, 1 video: GM Crops)

- 1. Do we need genetically modified food? Why or why not?
- 2. What are the health risks of GM food?
- 3. What is a herbicide?
- 4. What drawbacks of having plants that cannot be killed by herbicides?
- 5. What is the best argument (reason) against genetically modified foods?

Station 3 - ID: Obtaining DNA to Solve Crimes (2 articles, 2 videos: DNA Database, Senator Seward)

- 1. What is privacy?
- 2. What is the right to privacy?
- 3. What does is the difference between being charged with a crime and convicted of a crime?
- 4. Is DNA private property?
- 5. When is DNA not private property? (explain)
- 6. When should police be able to collect DNA?

Station 4 - MEDICINE: Vaccines (1 article)

- 1. What is a vaccine?
- 2. Why do we need vaccines?
- 3. How do people normally get vaccines?
- 4. What is the benefit of growing plants with vaccines in them?
- 5. Why do you think 10% of people may not respond to the Hepatitis B vaccine?

Station 5 - MEDICINE: Gene therapy (3 articles, 2 videos: Gene Therapy, Science in Action)

- 1. What is gene therapy?
- 2. How does it work?
- 3. What could be a negative consequence of gene therapy?
- 4. What are the benefits of gene therapy?
- **5.** Why is gene therapy easier to use for curing sight disorders (like color blindness) than curing a disease like cancer?

Station 6 - MEDICINE: Gene therapy (Repeat of Station 5)

<u>Station 7 - MEDICINE: Pharmacogenomics</u> (1 article, 2 videos: Personalized Medicine, Personalised Medicine)

- **1.** What is pharmacogenomics?
- 2. What are two reactions people can have to medications because of their genes?
- 3. How do doctor figure out medications choices for patients today?
- 4. How will knowing DNA sequence help doctors prescribe medications?

Station 8 - MEDICINE: Designer Babies (1 article)

- 1. What did the two British couples do to prevent their children from getting breast cancer?
- **2.** The couple had to get the approval of the HFEA before they could go ahead. Why did the HFEA have trouble giving approval?
- 3. How many years away could we be from being able to identify a person's full genetic code?
- 4. What could hopeful parents do if they knew the full DNA sequence of embryos?
- 5. Is modifying genetic sequence, or choosing the best embryo playing "God"? Why or why not?