

Using NewsHour Extra Feature Stories

STORY

Genomes Offer Murky Clues to Personality, Physical Traits, 01/29/09

http://www.pbs.org/newshour/extra/features/science/jan-june09/genome_01-129.html

Estimated Time: One 45-minute class period with possible extension

[Student Worksheet](#) (reading comprehension and discussion questions without answers)

PROCEDURE

1. WARM UP

Use initiating questions to introduce the topic and find out how much your students know.

2. MAIN ACTIVITY

Have students read NewsHour Extra's feature story and answer the reading comprehension and discussion questions on the student handout.

3. DISCUSSION

Use discussion questions to encourage students to think about how the issues outlined in the story affect their lives and express and debate different opinions.

INITIATING QUESTIONS

1. What is DNA?

2. What is a gene?

3. What do genes do?

READING COMPREHENSION QUESTIONS – [Student Worksheet](#)

1. Where is your chemical blueprint located?

The chemical blueprint for every person resides in their genes, DNA codes passed down from generation to generation.

2. Why do people want to map their genes?

Individuals may want to map their genes to reveal information about their risk for disease, as well as clues to their ancestry.

3. What is Human Genome Project?

In 2001, the Human Genome Project, sponsored in part by the U.S. Department of Energy, released a monumental finding: it had completed a first draft of the human genome. This means it had identified roughly all the basic genes for a human, not for a specific human.

4. What do Wikipedia and the Personal Genome Project have in common?

Similar to how crowd-sourced Web sites such as Wikipedia operate, the originators of the Personal Genome Project hope that a large sample of human genomes will enable them to learn more about how to use genome technology to improve human health and understanding of the human species.

5. Who is Steven Pinker? What did he choose not to learn from his genes?

Harvard psychologist Steven Pinker, had his genome sequenced and decided not to learn if he had a gene variant that triples his chances of developing Alzheimer's disease.

6. What does the company 23andme do?

The company 23andme offers customers their risk factors for 14 diseases and 10 traits, as well as other information for \$399.

7. What did the government do to try and stop genetic discrimination?

In 2008, former President Bush signed the Genetic Information Nondiscrimination Act, which prevents health insurance companies and employers from using genetic information to discriminate.

DISCUSSION QUESTIONS (more research might be needed)

1. If offered the opportunity, would you want to know your genetic makeup? Why or why not?

2. Is there any information that you would never want to know from your genes?

3. Genetic mapping services are becoming cheaper and easier every year- do you think that is a good thing? Why or why not?

4. What do you think of private companies collecting so much personal data? What about the government?

5. Do you think genetic information could affect how you choose a career or live your life?

Extension Activity

Have students write a 300-500 word essay on this topic providing clear examples. Send your completed editorial to NewsHour Extra (extra@newshour.org). Exceptional essays might be published on our Web site.