

GENES: Fashion of the Future IP

GENES: Fashion of the Future The GENES: Fashion of the Future IP is an interest project from the Girl Scouts of Eastern Massachusetts.



Skill Builders

1. Like all sciences, genetics has its own special terminology to describe important structures and ideas. Find the meaning of the following genetics words: chromosome, DNA, dominant, recessive, autosomal, sex-linked, X-chromosome, Y-chromosome.
2. The term "double helix" describes the shape and structure of DNA, the basis of genetics. Create a model of a double helix and label the parts.
3. Has someone ever told you that you look like a relative? Find three traits that have been passed on through one or more generations, and share them with your troop or group. These may include a physical feature (i.e., eye color), or other trait. If possible, research these traits and find out whether they are dominant, recessive, sex-linked, autosomal, etc.
4. Learn about five genetic diseases. Questions you may want to ask are: What are the symptoms? Is it dominant or recessive? Is gender a factor? Are there treatments or cures for it? If possible, interview a person with a genetic disease to see what problems he or she faces when trying to lead a normal life.

Technology

1. Have you heard of the human genome project? Collect three magazine or newspaper articles relating to it, and share what you learned with your troop or group.
2. Stem cell research is currently a controversial topic. Research the process, and make a list of the pros and cons. Decide for yourself what your feelings are on the issue. Share your chart with your troop or group and have them decide what they think.
3. How are scientists using genetics to change the foods we eat? Learn about some of the processes they use to change food. Try a regular and "organic" (not genetically altered) fruit or vegetable and compare them.

Service Projects

1. Create a game for, or teach younger girls to help them learn about genetics.
2. Volunteer at a hospital or some organization that helps people with genetic diseases.
3. Help out at a genetic disease fund walk/race.
4. Design an exhibit on genetics for a library or school.

Career Exploration

1. Talk with a genetics counselor, a scientist, a physician, or some other professional in the field of genetics about their job. What training did it take to become what she is? What does she like about her job? What is difficult about it? What issues does she think are important for girls to know about genetics?
2. Shadow a genetics counselor, a scientist, a physician, or some other professional in the field of genetics.
3. Name eight "genetics careers." Research three of them and find out what training it requires. Share what you learned with your troop or group.

See also

[List of Council's Own Interest Projects](#)

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