

Find a Gene

Summary

Students will use a model in the form of a jigsaw puzzle and corresponding pedigree to learn how genes are located. They will then use another pedigree and a more realistic model using chromosomes and gene pairs to locate another gene.

Main Core Tie

Science - Biology

[Standard 4 Objective 3](#)

Time Frame

1 class periods of 90 minutes each

Group Size

Pairs

Materials

color copies of [jigsaw puzzle for handout](#) (attached) One puzzle per pair of students is ideal.

- [reading](#)
(attached)
- [student sheet](#)
(attached)

Instructional Procedures

Read the introduction with the students and have students read the newspaper article "Five mental disorders share genetic links, huge study says"

Be sure to ask to students to try and answer the question: How do scientists use DNA research to find out what genes cause specific traits?

Discuss the student answers and then ask them to solve the puzzle. Make sure everyone understands how the puzzle is solved before moving on. A simple way to explain the solution is that every person on the pedigree that has the disorder, also has that gene. You may have to explain that since the first person has all red and has the disorder, the "gene" for the disorder must be red. Remind them to look at the pedigrees.

The correct answer is: #36.

Ask students to try the next "puzzle" using models of chromosome and their named genes.

Explain DNA has many more base pairs than is pictured and that scientists know the entire human genome.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)