

Chromosomal Abnormalities

Purpose:

You will learn about a specific chromosomal abnormality in detail. Working with a partner, you will complete a patient history online to discover the karyotype arrangement for the disorder, conduct research on this abnormality, and then present your findings to the class with the aid of a poster or electronic presentation.

Part 1: Online Investigation

1. Your teacher will assign a patient history to you and you partner (either Patient A, Patient B, or Patient C).
2. Go to the website: **The Biology Project** (<http://www.biology.arizona.edu>).
3. On the left, click on “**Karyotyping**” which is just below the topic “Human Biology”.
4. Read through the **Introduction**.
5. At the bottom, click on “**Patient Histories**.”
6. Read the patient history for your patient. (Either Patient A, Patient B, or Patient C)
7. Follow the instructions and complete the activity on the screen.
8. When you have correctly completed the karyotype, diagnose your patient using the chart provided on the next page.
9. Print a copy of your complete karyotype.

Part 2: Research

Now that you have diagnosed your patient, it is time to learn about this disorder.

Using the Internet and any library material, you will find the following information:

- Symptoms
- Treatments
- Statistics
- medical tests that can be done to predetermine this disorder before birth
- life expectancy
- any other information you feel is relevant.

Bibliography

You will be required to hand in a bibliography of all the resources you used. For accurate research, a combination of sources (ie. books, Internet, newspaper, etc.) should be used. Your bibliography should be no more than 1 page typed, and must include at least 3 sources. You will use the bibliography format provided by your teacher. This is to be handed in as part of your assignment.

Part 3: Display: Choose one of the following options

Poster:

Arrange all of your researched information, including the picture of your karyotype you printed, and the patient history, onto one side of a ½ sheet of Bristol board. You may arrange this any way you wish as long as the information required is included. Include a brief list of the resources in your bibliography.

PowerPoint:

Create a PowerPoint presentation to provide viewers with an organized arrangement of the information you have gathered. Include your patient history, the image of your karyotype, and the information you gathered about your patient's disorder. Include your bibliography in point form on the last slide.

Part 4: Presentation

Using your display, you and your partner are to present the information researched. The presentation should take approximately 3 minutes and should include all the important information you have gathered.

Assessment:

You will be marked using a rubric and an observational checklist. You and your partner will receive the same mark for the class presentation and the poster. You will be marked individually on your work ethic while you are completing your research and poster. These marks will then be combined to create your final individual mark.