

Genetic Disorder Research

Each groups of students (1 or 2 people per group) will research and present information on a genetic disorder to the class through a multimedia presentation on the iPad that the class will view during a gallery walk.

Select one disorder from the list below. There are numerous disorders that are not on the list, so you may select and research a disorder that is not on list. Once you select your disorder, please sign up at the front of the room (only one group per disorder).

Potential disorders to research:

Adrenoleukodystrophy (ALD)	Diabetes	Klinefelters Syndrome	Proteus Syndrome
Albinism	Down Syndrome	Lou Gehrig's Disease (ALS)	Retinoblastoma
Angelman Syndrome	Dubowitz Syndrome	Marfan Syndrome	Rett's Syndrome
Asperger's Syndrome	Dwarfism	Mobius Syndrome	Russell Silver Syndrome
Autism (not Asperger's Syndrome)	Familial Dysautonomia (FD)	Muscular Dystrophy	Sickle Cell Anemia
Canavan (4)	Familial Mediterranean fever	Nail-Patella Syndrome	Stickler Syndrome
Celiac (59)	Fragile X Syndrome	Osteogenesis Imperfecta	Tay-Sachs Disease
Charcot-Marie-Tooth Disease (6)	Gaucher's Disease	Phenylketonuria (PKU)	Thalassemia
Cri du Chat	Hemophilia	Polycystic Kidney Disease	Tourette Syndrome
Crohn's Disease	Huntington's Disease	Prader-Willi Syndrome	Treacher Collins Syndrome
Cystic Fibrosis	Jacobsen Syndrome	Progeria	Turner Syndrome
			Williams Syndrome

- 1) Research your disorder (today's assignment) using the graphic organizer.
- 2) Compile your research information into a presentation that other students will observe during a gallery walk (students will walk around to your presentation on the iPad rather than an oral presentation at the front of class). Prepare a visual presentation on the iPad using EduCreations, Popplet, Screenchomp, a video, etc.
- 3) Prepare 3 questions that students can answer while viewing your presentation. Focus your questions on the main ideas rather than details/facts.

Introductory I (15 pts)

- * What is a genetic disorder?
1-2 sentences in general, what it is
- * How often do genetic disorders occur?
- * what was thought about genetic disorders yesterday, and today
- *What is the name of your genetic disorder

2. Introductory Statement (15 pts)

- * Why is this disorder it named this
- *Are there other names by which it is commonly known?
- * How was it discovered
- * How many are affected by this disorder

3. Mode of Inheritance part a (15 pts)

- * How does a person get this disorder?
All genetic disorders are inherited. There are several different ways in which they can be inherited. explain
- * Determine whether your disorder is an dominant trait, a recessive trait, an X-linked recessive trait, a chromosomal error or a multifactorial trait.
- * Is it found more in one type of diversity or sex?

4. Mode of Inheritance part b (20 pts)

EXPLAIN THE GENETICS

- * Is it autosomal dominant, autosomal recessive, sex linked or a mutation of the genes for unknown reasons?
- *Which chromosome does it occur on?
Chromosomal errors may take several types: a particular missing chromosome (e.g. a missing X chromosome), an extra chromosome (e.g. an extra chromosome 21), or a damaged chromosome (e.g. part of a chromosome deleted).
- A multifactorial disorder is one which is caused by several genes or by a combination of genetic and environmental factors.

9. Detection - - (20 pts)

Can the disorder be detected before its symptoms appear?

Can it be detected prenatally? (before the baby is born)

Is there any way to detect a carrier of the disorder?

(don't just report facts... interpret your research.)

9. Conclusion: - (20 pts)

Restate the definition of genetic mutation in a different way

restate an important piece of information about this specific disorder

Emphasize some important details from the paragraphs above

Tie a conclusion statement to your overall thesis statement from the first paragraph
(you're the expert now, what's your opinion?)

10. Bibliography: 4 sources in correct format: 15 pts

- DOES NOT Include Wikipedia which may only be used once!

Correct Format: Title of article, web page address, date you went and found this on the internet.

Rubric

1: Title: (5 pts)

- ___ Title of the disorder
- ___ Name, date, and period
- ___ A relevant graphic

2: Introduction: (15 pts)

- ___ What is the disorder?
- ___ **Briefly** describe what the disorder is (what does it do to its victims).
- ___ Is there one ethnic group that your disorder affects more others

3: Symptoms (20 pts)

- ___ How it affects its victims (more detail than in the introduction) (graphics/video useful)

4: Treatment (20 pts)

- ___ How are the symptoms treated
- ___ If possible, describe the efforts that are being made to find a cure.
- ___ Any other relevant information

5: Genetics (20 pts)

- ___ describe how this disorder occurs (graphics/video useful)

6: Conclusion: (15 pts)

- ___ What will you do with this info?
- ___ Affect on your understanding/attitude towards genetic diseases?

7: Bibliography: (15 pts)

- ___ List all of your resources (at least 4)

Teacher Comments:

___ /110 Total