

**DNA or RNA MUTATIONS PRESENTATION**

Ref: <https://my.clevelandclinic.org/health/diseases/21751-genetic-disorders>

1. What is your mutation called:
2. Is it a disease, disorder, or coding error?
3. How does it involve mutation?
4. Is it chromosomal, complex (multifactorial), single-gene (monogenic) or other?
5. Is it rare? If so, \_\_\_\_\_% of a demographic?
6. What are the possible causes? (ie. Random mutation, inherited mutation, radiation exposure, smoking, chemical exposure, UV exposure?...)
7. What are the symptoms? (min. 5; include behavioural, cognitive, physical, developmental, digestive, sensory, mobility, aging, etc...)
8. How is it diagnosed? (carrier test, prenatal/newborn screen? Use lay language)
9. What is the treatment/ management for day to day living? (meds, nutrition, therapy, transfusion, transplant, surgery, gene therapy. Etc...)
10. Is there a threat of early death? Why?
11. Is there a way to prevent this disease/ disorder? How?

Create a presentation you will show to the class to educate them on a disease or disorder involving mutation. You are the teacher of this topic! Presentations may be a Powerpoint, a movie, a song/video, a poem with images, etc...IT MUST HAVE AN AUDIO AND VISUAL COMPONENT! It must be at least 5 minutes and no more than 7 minutes long. Answer all the questions above. The rubric is on the reverse of this sheet.

**ASSESSMENT**

You will be assessed on your presentation using the rubric above. Your behaviour as a learner will also be assessed during the presentation period. In addition, you will have a quiz on Friday October 20<sup>th</sup> to assess understanding of mutation in DNA/ RNA (notes are permitted)

Learner behaviour is attentive and respectful	/4
Learner is taking notes	/4
Quiz	/12
Presentation	/28
<b>TOTAL</b>	<b>/48</b>

CATEGORY	4	3	2	1
<b>Preparedness</b>	Student is completely prepared and has obviously rehearsed.	Student seems pretty prepared but might have needed a couple more rehearsals.	The student is somewhat prepared, but it is clear that rehearsal was lacking.	Student does not seem at all prepared to present.
<b>Speaks Clearly</b>	Speaks clearly and distinctly all (100-95%) the time, and mispronounces no words.	Speaks clearly and distinctly all (100-95%) the time, but mispronounces one word.	Speaks clearly and distinctly most (94-85%) of the time. Mispronounces no more than one word.	Often mumbles or can not be understood OR mispronounces more than one word.
<b>Time-Limit</b>	Presentation is 5-7 min.	Presentation is 4-5 or 7-8 min.	Presentation is 3-4 or 8-9 min.	Presentation is less than 3 min or longer than 9 min
<b>Content</b>	Shows a full understanding of the topic and provides all references, including for images.	Shows a good understanding of the topic and provides most references, including for images.	Shows a good understanding of parts of the topic and provides some references.	Does not seem to understand the topic very well and provides few to no references.
<b>Vocabulary</b>	Uses vocabulary appropriate for the audience. Extends audience vocabulary by defining words that might be new to most of the audience.	Uses vocabulary appropriate for the audience. Includes 1-2 words that might be new to most of the audience, but does not define them.	Uses vocabulary appropriate for the audience. Does not include any vocabulary that might be new to the audience.	Uses several (5 or more) words or phrases that are not understood by the audience.
<b>Answers all questions</b>	All questions are answered completely and in detail.	All questions are answered in good detail.	Most questions are answered in some detail.	More than three questions are not answered.
<b>Visual presentation</b>	Visual presentation is impressive, professional, simple and attractive for learners.	Visual presentation is proficient, simple and attractive for learners.	Visual presentation is developing and not always easy for learners.	Visual presentation is developing and difficult for learners to follow.