# Grade 9 Sample Lesson Plan: Chronic Disease Performance Task 

## SOLs

- Analyze personal risk factors for diabetes, heart disease, and stroke.
- Identify health-related decisions that contribute to heart disease, stroke, diabetes, and other chronic diseases and conditions.


## Objectives/Goals

- The student will analyze personal risk factors for diabetes, heart disease, and stroke
- The student will identify health-related decisions that contribute to heart disease, stroke, diabetes, and other chronic diseases and conditions.


## Materials

- Case Study Performance Task (includes rubric)


## Procedure

- Step 1 Review the performance task before introducing it to your students. Review the teacher answer sheet.
- Step 2 Pass out a copy of the performance task to each student and review the expectations of the project. Emphasize to students that when they write/type their papers they cannot regurgitate the clues. Instead, they must make the connection between the clue and the diagnosis. Assign a due date. Option: Allow students to work in groups of two or three.
- Step 3 Once complete, review the answers with the class.


## References

- Mary McCarley, 2018


## Handout

The next page includes a handout for the lesson. The handout is designed for print use only.

## Case Study Performance Task

Directions: Risk factors increase the likelihood of developing a disease while protective factors decrease this risk. Follow the lives of the following 6 people to determine their quality of health. Two individuals will live long healthy lives. Four will be at risk for an early death. Based on the clues below, you will decide:

- which two individuals could live long lives
- which four individuals are at risk for an early death and their health problem Once you have figured out the cases, write (or type) a $1 / 2$ page paper on each individual defending their quality of health or health diagnosis and explaining how the risk factors and protective factors helped to determine this conclusion. All clues need to be explained within the response. Answers may vary yet still be correct if you can justify it in their written response.


## Case Study \#1

Joanna Martinez
43 year old mother of two who works at Bank of America

## Clues:

Joanna has a loving and supportive family. She truly enjoys the time she spends together with her family.
The Martinez family is financially stable and all members have quality health insurance Joanna has a Body Mass Index of 30
Joanna is a diabetic.
Joanna is a current smoker with an average of 6 cigarettes a day. She does plan on quitting soon.
Joanna states that her high stress job is causing her to smoke cigarettes.
With a full time and two children, Joanna finds little time to exercise. She does engage in low intensity exercise 3 days a week for 20 minutes
Joanna recently went to the doctor and her blood work indicated:

- LDL Cholesterol $190 \mathrm{mg} / \mathrm{dL}$
- HDL Cholesterol $38 \mathrm{mg} / \mathrm{dL}$
- Triglyceride level $210 \mathrm{mg} / \mathrm{dL}$
- Low thyroid

Joanna woke up this morning and is experiencing tingling in her left arm with pain during movement and shortness of breath.

## Respond to the following questions on a separate piece of paper.

How is Joanna's quality of health? Is she at risk for an early death? If so, what is her diagnosis? How do the risk factors and protective factors help to determine her quality of health? Defend your answer by stating how the risk factors and protective factors influenced her health.

## Case Study \#2

## Tom Johnson

42 year old veteran who served 3 years in Iraq and Afghanistan and has recently been diagnosed with Post Traumatic Stress Disorder

## Clues:

Tom has a healthy relationship with his wife and has a supportive, loving family.

- They have 3 kids ages 4,6 , and 8

Tom has been diagnosed with Post Traumatic Stress Disorder (PTSD).
Tom has been diagnosed with depression
Tom admits to being a social drinker but recently quit drinking alcohol due to his increased feeling of aggression while under the influence.
Tom wakes up every morning and exercises vigorously at the local gym for 1 hour.
Tom volunteers in the community with Habitat for Humanity and at the local homeless shelter.
Tom seeks counseling for PTSD and depression weekly. He goes to individual counseling sessions and also sessions which involve his family.
Tom is having positive results with Prozac.

## Respond to the following questions on a separate piece of paper.

How is Tom's quality of health? Is he at risk for an early death? If so, what is his diagnosis? How do the risk factors and protective factors help to determine his quality of health? Defend your answer by stating how the risk factors and protective factors influenced his health.

## Case Study \#3

Sam Grimes
22 year old Virginia Tech college graduate who recently took a job in Alaska in commercial real estate

## Clues:

Sam is excited about the new job opportunity.
Sam has medical insurance.
Sam lives in Alaska
Because Sam moved away from his family and friends, he is experiencing significant signs of sadness.
Sam uses cocaine on the weekends to "live wild and free" and lose weight.
Sam tried several fad diets but has been unsuccessful at losing weight and continues to have a poor body image.
Sam's girlfriend of 6 years broke up with him; as a result, he is experiencing higher levels of stress and feelings of hopelessness.
Sam has low levels of dopamine and serotonin due to genetics.
Respond to the following questions on a separate piece of paper.
How is Sam's quality of health? Is he at risk for an early death? If so, what is his diagnosis?

How do the risk factors and protective factors help to determine his quality of health? Defend your answer by stating how the risk factors and protective factors influenced his health.

## Case Study \#4

Martha Dean
40 year old mother who stays at home to care for her 2 and 4 year old

## Clues:

Martha has a BMI of 31.
Martha is pre-diabetic.
Martha's husband is controlling and uses words to belittle Martha.
Martha quit smoking 4 years ago when she was pregnant with her first child.
Martha recently changed her eating habits, has lost 5 pounds, and aims to lose 20 more.
Martha and her husband are attending weekly marriage counseling sessions.
Martha engages in moderate exercise 5 times a week for 40 minutes.
Martha has medical insurance and sees a doctor for a yearly physical.
Martha's blood work indicates:

- LDL Cholesterol $90 \mathrm{mg} / \mathrm{dL}$
- HDL Cholesterol $65 \mathrm{mg} / \mathrm{dL}$

Martha's blood pressure is $110 / 78 \mathrm{~mm} \mathrm{Hg}$

## Respond to the following questions on a separate piece of paper.

How is Martha's quality of health? Is she at risk for an early death? If so, what is her diagnosis? How do the risk factors and protective factors help to determine her quality of health? Defend your answer by stating how the risk factors and protective factors influenced her health.

## Case Study \#5

## Julie Newman

48 year old married woman who works at a community college as a professor

## Clues:

Julie is 48 years old
Julie is African American
Julie has a BMI of 33
Julie's blood pressure is $150 / 92 \mathrm{~mm} \mathrm{Hg}$
Julie recently went to the doctor and her blood work indicated:

- LDL Cholesterol $200 \mathrm{mg} / \mathrm{dL}$
- HDL Cholesterol $30 \mathrm{mg} / \mathrm{dL}$

Julie admits to eating a diet full of sugar and refined grains with little fruits and vegetables. Julie does not enjoy exercising due to her weight issue; therefore, she chooses not to. Julie was diagnosed with Polycystic Ovarian Syndrome in her early 30s.

## Respond to the following questions on a separate piece of paper.

How is Julie's quality of health? Is she at risk for an early death? If so, what is her diagnosis? How do the risk factors and protective factors help to determine her quality of health?
Defend your answer by stating how the risk factors and protective factors influenced her health.

## Case Study \#6 <br> Cindy Woods

56 year old substitute teacher

## Clues:

African American
Female
She has a BMI of 30
Cindy was diagnosed with Type II Diabetes at the age of 51 and does not manage it well. Due to financial problems, she has high levels of stress.
Her parents and grandparents both had a history of high blood pressure but she has not been tested in five years. Neither her parents or grandparents are still living.
Cindy has smoked cigarettes since the age of 18 . She currently smokes a pack a day.
Cindy does not exercise.
Cindy sat down with a friend for lunch and suddenly became confused and had trouble speaking.

## Respond to the following questions on a separate piece of paper.

How is Cindy's quality of health? Is she at risk for an early death? If so, what is her diagnosis? How do the risk factors and protective factors help to determine her quality of health? Defend your answer by stating how the risk factors and protective factors influenced her health.

## Case Study Answer Key

Case Study \#1 Joanna Martinez: Joanna is having a heart attack
Case Study \#2 Tom Johnson: Tom lives a long life
Case Study \#3 Sam Grimes: Sally is at risk for suicide
Case Study \#4 Martha Dean: Martha lives a long life.
Case Study \#5 Julie Newman: Julie is at risk for Type II Diabetes
Case Study \#6 Cindy Woods: Cindy is having a stroke.

## Performance Task Rubric

|  | Great Work 4 | $\begin{gathered} \text { Good Job } \\ 3 \end{gathered}$ | Getting There 2 | Not Quite 1 |
| :---: | :---: | :---: | :---: | :---: |
| Requirements | All requirements are met and exceeded. | All requirements are met. | One requirement was not met. | More than one requirement was not met. |
| Content | Information is accurate and indepth with details. Content knowledge is excellent. | Information is accurate. Content knowledge is good. | Most of the information is accurate but contains some factual errors. Content knowledge is below average. | Information includes several factual errors. <br> Content knowledge is poor. |
| Organization | All work is neat and information is easy to understand. | Most work is neat and easy to understand. | Some work is neat and easy to understand. | Work is not neat and difficult to understand. |
| Grammar | There are few mistakes in grammar, punctuation, or spelling. | There are some mistakes in grammar, punctuation, or spelling. | There are several mistakes in grammar, punctuation, or spelling. | Product has little or no punctuation and/or correct spelling. Content is unclear due to excessive errors. |
| Effort | Work shows exceptional effort, planning, and pride. | Work shows good effort, planning, and pride. | Work shows basic effort, planning, and pride. | Work shows minimal effort, planning, and pride |


| Grading Rubric | $12=76 \%$ |
| :--- | :--- |
| $20=100 \%$ | $11=74 \%$ |
| $19=97 \%$ | $10=71 \%$ |
| $18=94 \%$ | $9=69 \%$ |
| $17=91 \%$ | $8=66 \%$ |
| $16=88 \%$ | $7=64 \%$ |
| $15=85 \%$ | $6=62 \%$ |
| $14=82 \%$ | $5=60 \%$ |
| $13=79 \%$ |  |

