

## Independent Study Student Contract

Dear \_\_\_\_\_,

Congratulations! Your pretest results indicate that you are eligible to take part in an independent study unit on DNA. The independent unit is designed to build upon your preexisting knowledge of DNA and protein synthesis while allowing you to independently apply your knowledge at a higher level. While this independent opportunity will be interesting, it requires that you demonstrate the following abilities:

- independently complete tasks
- self-direct your own learning
- personal accountability of work completion
- self-motivation

If you are interested in participating in the independent study, please read and sign the attached student contract. You will also need to have a parent/guardian read independent study contract, discuss the expectations, and sign and date the contract. Once this is returned, you will be qualified to participate in the independent learning opportunity.

Good luck,

### Independent Learning Unit Contract

Student Name: \_\_\_\_\_

Carefully read each expectation. Indicate your agreement of each statement by placing a check box next to the statement. After agreeing to each expectation, sign and date below.

#### Learning Conditions

- I agree to work independently throughout the unit.
- I agree to make the best use of my time each day.
- I will complete all required portions of the project.
- I will track my progress **daily** using the daily log sheets.
- I agree to seek assistance when needed in a way that will not disrupt the learning of others.
- I will participate in whole-class activities as the teacher indicates them—without arguing.
- I will share a report about my independent project with the class.

#### Working Conditions

- I will not bother anyone else during the class period.
- I will work on my project for the entire class period on the assigned work.
- I will carry all of my materials to and from class each day.
- I understand that I forfeit my right to the independent project if I break any of the above rules.

**Please sign below indicating your agreement to follow ALL of the guidelines above.**

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

### Independent Study Opportunity

To the parents/guardian of \_\_\_\_\_,

I am pleased to inform you that \_\_\_\_\_ received a score of \_\_\_ on the unit pretest. This result indicates that your son/daughter shows mastery of the unit objectives. I would like to provide \_\_\_\_\_ an opportunity to further his/her understanding of the unit concepts by providing an independent study option. During this opportunity, \_\_\_\_\_ will work independently to deepen his/her understandings of DNA and protein synthesis. While \_\_\_\_\_ is not required to participate in the independent study, I encourage you to support and challenge your son/daughter to engage in an activity that will strengthen their academic capabilities and significantly increase their understanding of the unity objectives.

*If you would like your son/daughter to participate in the independent study opportunity, please complete below and send it back to school.*

Please carefully read each statement below. Indicate your agreement of each statement by placing a check box next to the statement. After agreeing to each statement, sign and date below. Thank you!

\_\_\_\_\_ I agree to allow my student to take part in the independent study unit.

\_\_\_\_\_ I understand that my child will be working independently while other students work towards mastery of the learning objectives for this unit.

\_\_\_\_\_ I agree to support my child as they work throughout this unit.

\_\_\_\_\_ I agree to hold my child accountable for all assignments that are a part of this unit.

\_\_\_\_\_ I agree to allow my student to take part in the independent study unit.

\_\_\_\_\_ I have read and discussed the expectations above with my child.

Please let me know if you have any questions, comments, or concerns.

Please sign below indicating your agreement to the above guidelines.

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date

Student Signature: \_\_\_\_\_

Teacher Signature: \_\_\_\_\_



## Independent Study Challenge: **Skin Cancer: a Teen Epidemic**

You have already demonstrated proficiency in the following areas concerning DNA:

- DNA structure and function.
- DNA replication
- Protein synthesis

### **Task:**

A. To help you independently deepen your understanding of DNA, I would like you to explore the effects of artificial tanning (tanning beds) and its effects on teen DNA and potential ramifications. You will develop an educational model that:

- Explains the sun's effects on DNA
- Demonstrates to how a mutated gene is prorogated
- Demonstrates how the mutated DNA makes incorrect (potentially cancerous) proteins

B. Once you have explored the effects of artificial tanning on teen DNA, I would like you to develop a targeted campaign aimed at the prevention of excessive artificial tanning. To do this, you will need to:

- Conduct a poll of the student body to determine the prevalence of artificial tanning
- Analyze your poll data (use data to develop graphs)
- Develop a prevention strategy aimed at your target audience

C. Develop a *brief* presentation that:

- Explains the problem with excessive artificial teen tanning
- Provides a synopsis about your polling procedures, data collection process, and results
- Explains the rational for your prevention campaign
- Shares preliminary campaign results and reactions from student body

As always, please let me know if you need any help. I strongly encourage you to begin to develop a list of resources that you can utilize to complete complex tasks.

Best of luck,

### **Skin Cancer: a Teen Epidemic Evaluation**

A. Develop an educational model that:

- \_\_\_ Explains the sun's effects on DNA (5)
- \_\_\_ Demonstrates to how a mutated gene is prorogated (5)
- \_\_\_ Demonstrates how the mutated DNA makes incorrect (potentially cancerous) proteins (10)

B. Develop a targeted campaign aimed at the prevention of excessive artificial tanning:

- \_\_\_ Conducted a poll of the student body to determine the prevalence of artificial tanning (5)
- \_\_\_ Analyzed your poll data (use data to develop graphs) (10)
- \_\_\_ Developed a prevention strategy aimed at your target audience (10)

C. Develop a *brief* presentation that:

- \_\_\_ Explains the problem with excessive artificial teen tanning (3)
- \_\_\_ Provides a synopsis about your polling procedures, data collection process, and results (3)
- \_\_\_ Explains the rational for your prevention campaign (3)
- \_\_\_ Shares preliminary campaign results and reactions from student body (1)

Final Score \_\_\_\_/ 55