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EDI 337-02

Professor Schultz

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Performance Task Assessment

Purpose

This assessment is intended for fifth grade students and ensures that they understand the scientific concepts in relation to the grade level content expectations. Specifically, this is both a formative and summative assessment that allows students to use their critical thinking skills about heredity and inherited traits. Students will utilize the content during this assessment through real-life application. Specifically, this assessment will have students identify inherited traits within a family. Each student will undergo a process, which will ultimately lead to a product. Before this assessment is given, students will learn through group discussion, multiple activities, and the textbook. Following this assessment, students will further solidify their knowledge pertaining to the learning goals. The performance task assessment will be beneficial for teachers because they'll recognize what each student knows and how students interpret the learning goals in relation to the assessment. From this information, teachers can formulate activities based on students' particular needs in regards to the learning goals. This ensures that students are taking the time to go back to fully understand the content being addressed.

Michigan Department of Education Grade Level Content Expectations

L.HE.05.11 Explain that the traits of an individual are influenced by both the environment and the genetics of the individual.

L.HE.05.12 Distinguish between inherited and acquired traits.

S.IA.05.13 Communicate and defend findings of observations and investigations using evidence.

L.EV.05.21 Relate degree of similarity in anatomical features to the classification of contemporary organisms.

Learning Targets

Learning Targets	Section Number
I can describe how the environment and the genetics of the individual influence their traits.	2,3
I can differentiate between inherited and acquired traits.	1
I can discuss and support observations and investigations using evidence.	1,2,3,4
I can relate a degree of similarities in anatomical features to the classification of temporary organisms.	2,3

Schedule

Section 1 (Day 1): The students will bring in multiple pictures of a family (their own or another person's), showing at least three generations. The students will create a family tree with the pictures. The students will observe and identify at least three different inherited traits within that specific family. One hour will be given to complete this section.

Section 2 (Day 2): After observing the pictures and identifying at least three inherited traits, the students will determine who shares the inherited traits within the family. One hour will be given to complete this section.

Section 3 (Day 3): The students will examine the inherited traits for the youngest generation. Then the students will analyze the pictures and decide which person(s) the trait might have been inherited from in the older generations for each trait. The students will then write a brief summary about what they learned by completing this assessment. One hour will be given to complete this section.

Section 4 (Day 4/5): The students will work on and then give a five minute presentation discussing the family, the inherited traits, who shares the traits, who might have the traits been inherited from, a visual representation of a family tree using various pictures, and a brief summary of what they learned by completing this assessment. One hour will be given to complete this section.

Name: _____

Date: _____

Chapter Two Performance Task Assessment

Directions: This assessment will help you determine what learning goals you do and do not understand. The following project is based off of what you've learned in chapter two (heredity, inherited traits, acquired traits, similarities in anatomical features of organisms, and using evidence to support observations). This performance task assessment consists of **four sections**. Each section will be described for you below. Write your answers on the lines provided under each question and complete the necessary tasks in the space provided. A rubric will be given for the entire performance task assessment. The rubric contains five criteria, each worth 5 points. So, there is a maximum of 25 points possible for the entire assessment. Please write your name and the date on the lines provided at the top of the page. You will be allowed an hour per day for four days. Ideally, you'll aim to work on a section a day. During the hour or after, depending on when you finish each section, it's **mandatory** that you have me check your work, go over it with you, give feedback, and sign the bottom of the completed section as shown on the following pages. If you don't finish the section in class, it will be required as homework so you don't fall behind. You will be given the opportunity to look up information and design your presentation on the computer. In addition, feel free to use the family as a resource for your assessment. Large pieces of construction paper and coloring utensils will be provided for the creation of the family tree. If you have any questions, please raise your hand and I will come over to assist you. Good luck, I know everyone will do great! Take a deep breath before you start and have fun with this assignment!

Section 1:

On your desktop, form a family tree with the pictures you brought to class. This is done by dividing your pictures into the number of generations you have. (i.e. three piles for three generations) List the family members and their relationship to the youngest generation. After you've separated your pictures, observe them and identify at least three different inherited traits and list them below.

First inherited trait:

Second inherited trait:

Third inherited trait:

Additional inherited traits:

Teacher's Signature: _____

Section 2:

For each inherited trait that you chose, list who shares the trait from the entire family.

Family members who share the first inherited trait:

Family members who share the second inherited trait:

Family members who share the third inherited trait:

Family members who share any additional inherited traits:

Teacher's Signature: _____

Section 3:

Examine each of the inherited traits for the youngest generation. Analyze the pictures and write down which person(s) the trait might have been inherited from in the older generations for each trait. After you've finished, write a brief summary about what you've learned by completing this assessment.

First inherited trait:

Person(s) from older generations with the trait who might have passed the trait down to the younger generation-

Second inherited trait:

Person(s) from older generations with the trait who might have passed the trait down to the younger generation-

Third inherited trait:

Person(s) from older generations with the trait who might have passed the trait down to the younger generation-

Additional inherited traits:

Person(s) from older generations with the trait who might have passed the trait down to the younger generation-

Section 4:

The final component for this assessment is to prepare a five minute presentation about the work you've done so far in regards to heredity. If it would be easier, you may create a PowerPoint presentation for this section, but you still must verbally discuss your information during your presentation. Please write your thoughts in the space provided. The items in your presentation should include:

- A visual representation of a family tree using various pictures
- A description of who the family is in relation to you and the names of the individual members shown in the pictures
- A description of the inherited traits you picked
- A list of family members that shares the trait for each trait
- A list of family members who the inherited traits might have been passed down from for each trait
- A brief summary of what you've learned by completing this assessment

Teacher's Signature: _____

Rubric:

CATEGORY	5	3	1
Identify the Inherited Traits	Lists all three inherited traits within the family.	Lists two inherited traits within the family.	Lists one inherited trait within the family.
Identify Who Shares the Traits	Lists all possible family members that share each trait for all three traits.	Lists all possible family members that share each trait for two traits.	Lists all possible family members that share each trait for just one trait.
Identify Who Could Have Passed Down the Trait	Lists all possible family members that could have passed down the trait for all three traits.	Lists all possible family members that could have passed down the trait for two traits.	Lists all possible family members that could have passed down the trait for just one trait.
Summary	Lists, describes, and explains their understanding about inherited traits and how it's shown within the family.	Lists and describes some understanding about inherited traits and how it's shown within the family.	Lists their some knowledge about inherited traits, but doesn't connect it to the family.
Presentation	All six components from section four was addressed during the presentation.	Between four and five of the components from section four was addressed during the presentation.	Three or less of the components from section four was addressed during the presentation.

Name: _____

Date: _____

Student Self-Assessment

A self-assessment gives the opportunity for you to review the assessment you just completed. It shows you what categories you got wrong and what categories you got correct from the rubric. It also allows you to see what categories you need to work on. Please put an "X" mark inside the box that corresponds to the point(s) you received for each category.

CATEGORY	5	3	1
Identify the Inherited Traits			
Identify Who Shares the Traits			
Identify Who Could Have Passed Down the Trait			
Summary			
Presentation			

Name: _____

Date: _____

Looking Ahead

After filling out the chart on the previous page and comparing it to the rubric with the points you've earned, you now realize what you know and what you need to work on.

Based on your results and the learning targets, answer the following questions.

Learning Targets

Learning Targets	Section Number
I can describe how the environment and the genetics of the individual influence their traits.	2,3
I can differentiate between inherited and acquired traits.	1
I can discuss and support observations and investigations using evidence.	1,2,3,4
I can relate a degree of similarities in anatomical features to the classification of temporary organisms.	2,3

1. Circle the target(s) you need to spend more time on.

I can describe how the environment and the genetics of the individual influence their traits.

I can differentiate between inherited and acquired traits.

I can discuss and support observations and investigations using evidence.

I can relate a degree of similarities in anatomical features to the classification of temporary organisms.

