

Adaptation Artistry

Design Brief

Background:

We have studied animal adaptations and the physical changes that animals need to undergo in order to adjust to their living and nonliving environment. We've also studied how habitats can change over time due to many influences. You now have the opportunity to show that you understand the difference between physical and behavioral adaptations.

Challenge:

It is now 100 years in the future and humans have not treated the Earth kindly. They have not recycled, reused, or reduced the amount of garbage and the Earth is littered with lots of trash. You will work with a partner to design and create an animal that has adapted to living in this type of polluted environment. You will present your animal to the class, telling us about the physical adaptations your animal has and how these adaptations help your animal survive in its futuristic environment.

Criteria:

Your animal must:

- have at least 4 physical adaptations
- have at least one moveable body part
- be between 12" - 18" in length and height
- create an index card with your name, your animal's **common name**, **scientific name**, a list of its physical adaptations and be ready to explain what each
- be able to describe how each adaptation helps your animal survive
- be neat and creative

Materials:

- | | | |
|----------------------|---------------------------|-------------------|
| * construction paper | * small boxes, containers | * craft sticks |
| * tape, glue | * recyclable materials | * paper fasteners |

Tools:

- scissors
- ruler
- crayons, writing utensils

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created by Shirley Sypolt - *Cooper Magnet Elementary School, Hampton City Schools (7-29-13)*

Science SOL - 2.7a The student will be able to describe physical adaptations that help animals adapt to seasonal changes

Science SOL - 2.5a The student will be able to describe how living organisms are interdependent with their living & non-living environment

Science SOL - 2.5c The student will be able to identify how habitats can change over time due to many influences

SLT -7 The attributes of design

- adapted from the *Adaptation Artistry* activity, **Project WILD K-12 Curriculum & Activity Guide**

Guided Portfolio



Name: _____

Date: _____

1. What is the problem/challenge that you need to solve?

Restate the problem in your own words. Write in complete sentences.

2. Brainstorm solutions to the problem/challenge.

Sketch at least two possible solutions for the problem challenge.

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Guided Portfolio

Name: _____

Date: _____

3. Create the solution you think is best.

Keep notes about the problems you have and how you solve them. Write in complete sentences.

4. Check your solution.

- Does your animal have at least 4 adaptations? YES NO
- Does your animal have at least one moveable body part? YES NO
- Is your animal between 12"-18" in length & height? YES NO
- Did you create an index card with your name, your animal's common name, scientific name, and have a list of the adaptations and how they help your animal survive? YES NO
- Is your project neat? YES NO and creative? YES NO

5. Evaluate your solution. Write in complete sentences.

Was it the best solution? Would your other idea have been better? Why or Why not?

What would you do differently, next time?

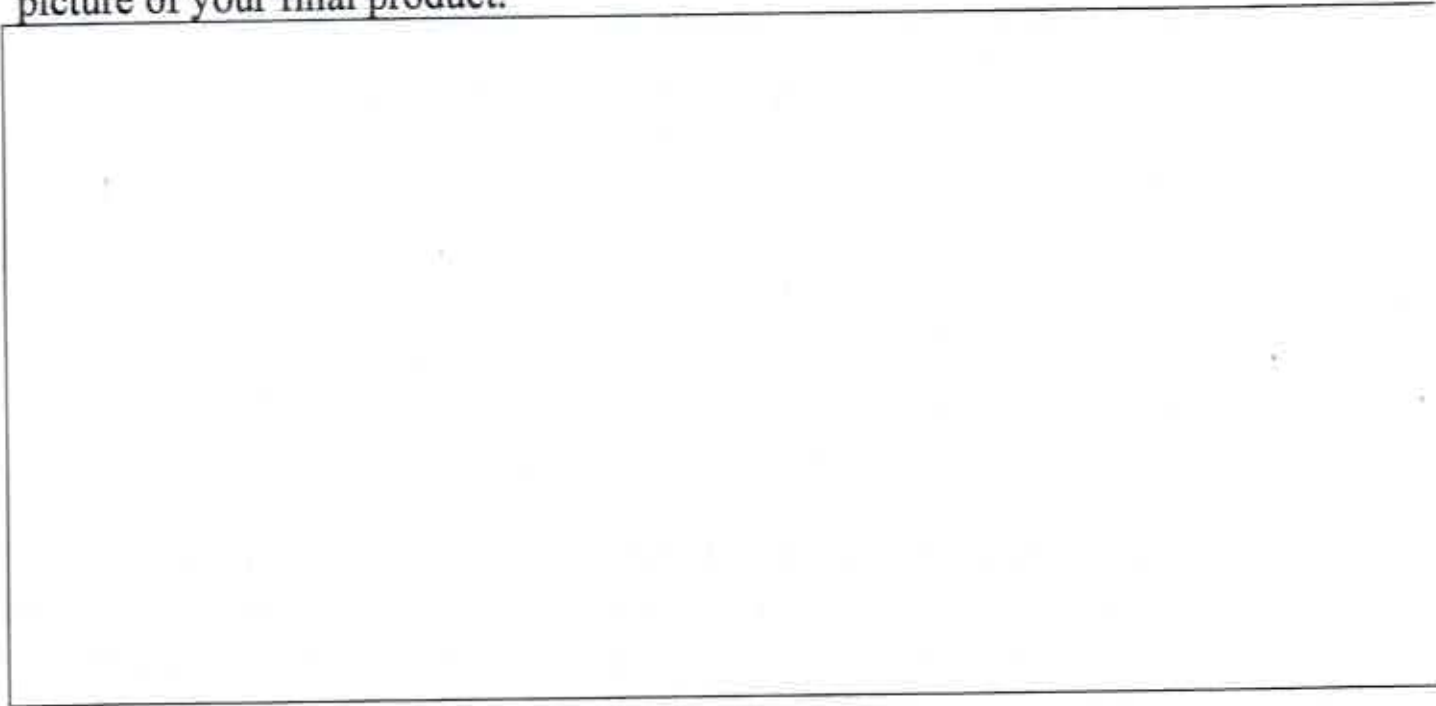
Can you add to it to make it better? If so, what would you add to your animal?

Guided Portfolio

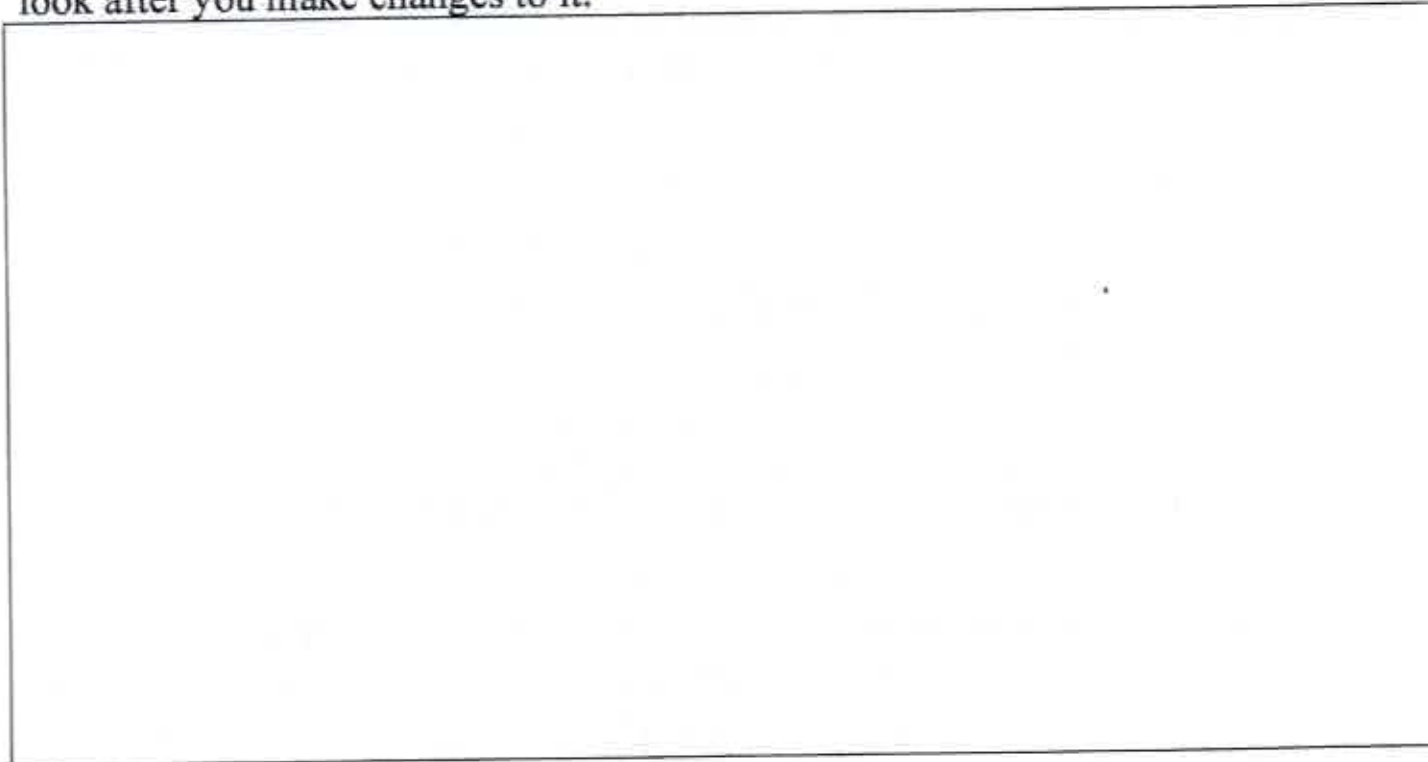
Name: _____

Date: _____

Attach a photograph of your project here. If you do not have a photograph, draw a picture of your final product.



How would you make your project better? Draw a picture showing how it would look after you make changes to it.



Guided Portfolio

Name: _____

Date: _____

Rubric for the Design Brief: Adaptation Artistry

Criteria	Meets all criteria 2	Meets most criteria 1	Very little or no evidence 0
Restate the challenge/problem in your own words.	The student was able to clearly restate the challenge in his/her own words.	The student restated part of the challenge in his/her own words.	The student was unable to restate the challenge in his/her own words.
Sketch/draw two different designs for your animal, before you begin to construct your design.	The student drew at least two designs of his/her animal, before starting to construct the selected design.	The student only drew one design before starting to construct his/her animal.	The student started constructing his/her design without drawing any animals.
Design an animal that has at least 4 physical adaptations (behavioral adaptations are optional), and one moveable part.	The student's animal has at least 4 physical adaptations and one moveable part.	The student's animal has 3 physical adaptations but no moveable part.	The student's animal has 1-2 physical adaptations and no moveable part.
Your animal must be between 12"-18" in length & height and have a common & scientific name.	The student's animal is between 12"-18" in length & height and has a common & scientific name.	The student's animal is too large or too small but does have a common & scientific name.	The student's animal does not have a common & scientific name.
You will complete all parts of the Guided Portfolio.	All parts of the Guided Portfolio are completed.	Only a few parts of the Guided Portfolio are completed.	None of the Guided Portfolio is completed.

Total Score: _____