CAS COLOMBO AMERICAN SCHOOL

"Educating Transformative Leaders"

EFQM Committed to Excellence 4 Star - 2017

SCIENCE AND ENVIRONMENTAL EDUCATION DEPARTMENT

LAB PRACTICE – ANIMAL ADAPTATIONS

SUBJECT: Science TEACHER: Kurt Bruss- Laura Angel- Camila Rodríguez. GRADE: 3 A B C D

NAME: _____ **DATE:** _____

Achievement: Describes the characteristics of natural resources and organisms found in different habitats and provide solutions to environmentally related problems.

ASSESSMENT CRITERIA	**GRADE**
During the Laboratory – 20% • Follow teacher instructions for setting up the laboratory practice at home. • Participate actively during laboratory discussion over Zoom.	
Laboratory Report– 80% • To explain how animal blubber help them keep warm in winter. • To explain how bird's beak are adapted for catching different food types. • Percentage of correct answers. • Use of complete sentences and accurate vocabulary • Organized presentation of the Laboratory Guide	**GRADE**

Cambridge learning objectives

4Eo6- Explain what the evidence shows and whether it supports predictions. Communicate this clearly to others.
4Ep1- Collect evidence in a variety of contexts.
4Eo4- Present results in drawings, bars, and tables.
4Eo5- Identify simple trends and patterns in results and suggest explanations of some of these.



REMEMBER

Adaptations are characteristics or behaviors that help animals survive in their habitat. Polar bears are adapted to survive in the cold artic.



Birds beak is adapted to catch a specific type of food.



Materials :

* Water.
* Ice.
* 1 Jar
* 5 big spoons of butter
* 2 Bags (Ziploc bags)
* Tiny paper pieces
* Tweezers
* Green peas
* 1 spoon
* 1 Cup
* Stopwatch



Experiment 1: The blubber experiment

1) RESEARCH QUESTION:

What does the butter do when we put our hand in icy water?

2) HYPOTHESIS: Write down your prediction to your research question.

I think that…

_____

3) PROCEDURE:

1) Fill a bowl with water and ice.
2) Place your hand inside a ziploc bag.
3) Put your hand inside the water.
4) Leave your hand inside the water as much as you can.
5) Put 5 spoons of butter inside another Ziploc bag.
6) Put your hand inside the Ziploc bag with water. You can use the clean bag as a glove.
7) Leave your hand inside the water.

4) RESULTS:

1) Complete the following table with a short description of what you felt in both cases:

Hand in bag with no butter	**Hand in bag with butter**
Description _____ _____ _____ _____ _____ _____ _____	Description _____ _____ _____ _____ _____ _____ _____

5) DISCUSSION:

1. Why do you think you felt less cold inside the butter bag?

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2. Would a fat layer be helpful to survive in the desert? Explain.

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3. Write a <u>different</u> adaptation of polar bears to survive in the artic.

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6) CONCLUSION:

1. Was your hypothesis correct? Yes _____ No_____

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2. Write one similarity between this experiment and the life of a polar bear in the artic.

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Experiment 2: Tell me what beak you have, and I will tell you what food you like.

1) RESEARCH QUESTION:

Are bird beaks specialized for one type of food?

2) HYPOTHESIS: Write down your prediction about the bird beaks of the experiment.

I think that the "spoon beak" will capture more…

.....

I think that the "tweezer beak" will capture more…

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3) PROCEDURE:

1) Set your stopwatch for 1 minute.

2) Use the empty cup as the "bird stomach".

3) Start eating all the paper pieces you can with your "tweezer beak". Place the food you get in the bird stomach.

4) After one minute, stop and count all of your food. Record your data.

5) Repeat all the procedure with the green peas as the bird food.

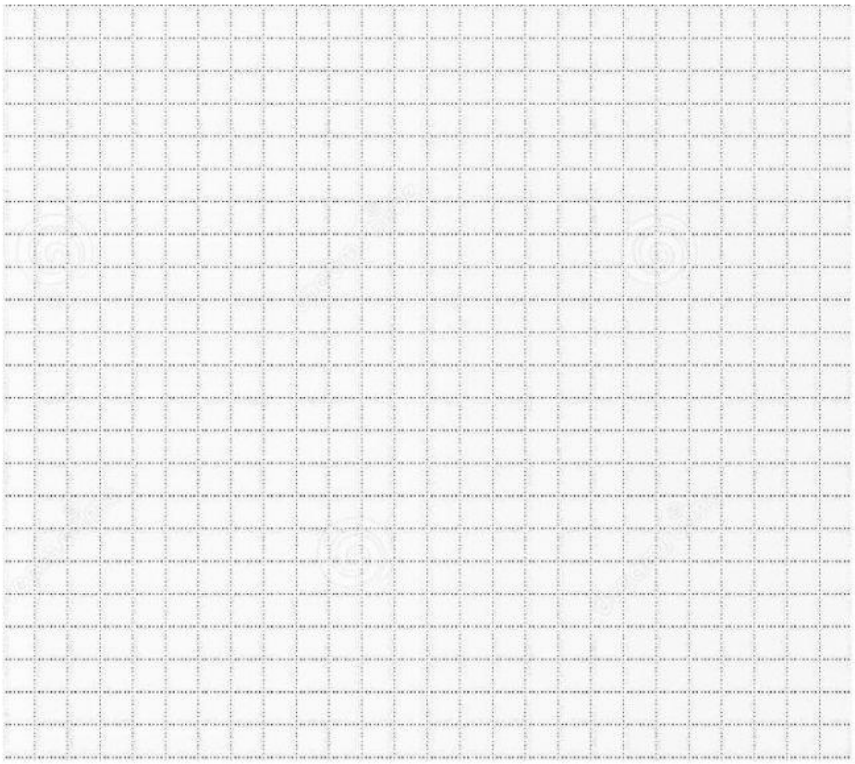
6) Repeat all the procedure with your "spoon beak".

4) RESULTS:

1) Complete the following table. How much food did you capture?

Beak	Paper pieces	Green Peas
Tweezer		
Spoon		

2) Draw a bar graph with a ruler on your notebook. Include the label for each bar.



5) DISCUSSION

1. What could happen to the bird with the tweezer beak if the paper pieces disappear?

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2. Do birds have beaks adapted for their food in nature? Write one example.

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6) CONCLUSION:

1. Was your hypothesis correct? Yes _____ No_____

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LET'S THINK ABOUT WHAT WE DID

What did I do today?

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What was the most difficult part for me?

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