



The Tropics And Poles

What I Will Be Learning In This Mastery Badge:

In this mastery badge we will discover that not all parts of the Earth experience seasons. Some areas are always warm while other places are always cold.

What This Packet Includes:

It is important that you complete all aspects of this packet so that you gain the knowledge and skills that we are working on.

I. **Discovering Lab**

A discovering lab is a fun, introductory lab, where we discover the knowledge on our own.

II. **Video Instruction**

You will watch a video presented by Mr. Bertoch, and answer questions about it.

III. **Literacy Practice**

Reading and writing are critical life skills, and also very important to science. You will read the assigned article and complete a writing prompt.

IV. **Applying Lab**

An applying lab is how you pass off the Mastery Badge. It serves as the quiz. It is a hands on demonstration that you have mastered the skills and content of this badge.

Key Things We Will Learn In This Mastery Badge

Some of the most important things we will learn in this mastery badge:

- Not everywhere experiences seasons.
- The tropics are always warm. They experience a neverending summer.
- The poles are always cold. They experience a neverending winter.

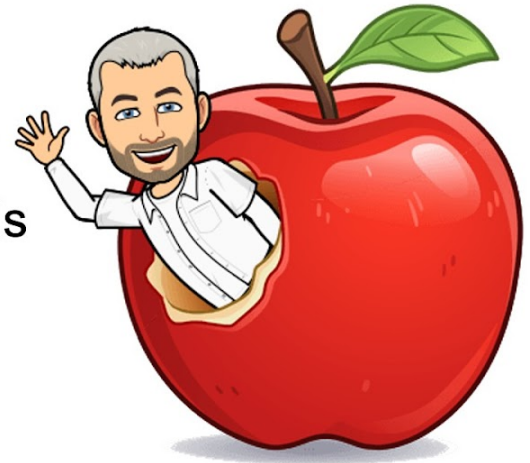
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Discovering Lab

Learning Through Hands
On Activities



Discovering The Tropics & Poles

Making your own discoveries.

Scan This QR Code To Watch Mr. Bertoch Give You Directions For
This Assignment





The Earth's Poles Are Always Cold While The Tropics Are Always Warm

Some parts of the Earth do not experience seasons. They are either always cold or are always warm. The cold parts of the Earth are located at the poles (top and bottom) while the warm place is in the tropics (middle or equator).



The Tropics And Poles Are Very Different From Each Other

With an adult's permission and supervision use the Internet, books, or other resources to learn about the characteristics of the tropics and poles. Then complete the chart below based on what you learn.

Location		Characteristics
	Tropics	<p>Five Animals Found In The Tropics Are...</p> <ul style="list-style-type: none">••••• <p>Five Plants Found In The Tropics Are...</p> <ul style="list-style-type: none">••••• <p>Describe what the temperature in the tropics is like.</p>
	Poles	<p>Five Animals Found In The Poles Are...</p> <ul style="list-style-type: none">••••• <p>Five Plants Found In The Poles Are...</p> <ul style="list-style-type: none">••••• <p>Describe what the temperature in the poles is like.</p>



Questions That Make You Think:

Always answer thinking questions using complete sentences.

1. Why do you think the tropics are always so warm?

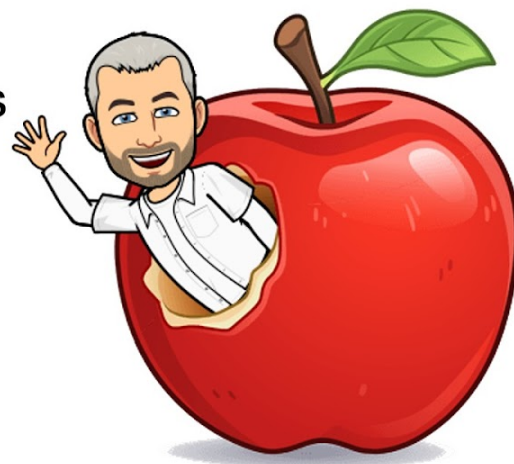
2. Why do you think the poles are always so cold?

3. What would happen to an animal adapted to the poles, such as a polar bear, if you suddenly moved it to the tropics?

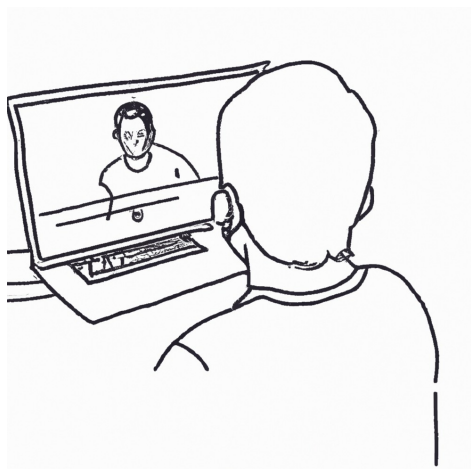
4. Why do you think there are fewer types of plants and animals in the poles than in the tropics?

Video Instruction

Reviewing The Teacher's
Instruction At My Own
Pace



Handsome Science Teacher One Take Videos



Good Job On Completing The Discovering Lab!

Now let's connect your discoveries to the vocabulary. Mr. Bertoch has created a video for you to watch.

Take Your Time, Pause And Rewind As needed

You are not in a hurry! It is more important that you understand the video than that you finish it quickly. Take your time. If you don't understand something, pause the video and discuss with an adult.

When you finish this video, you should have a good understanding of the concepts that have been taught. If you find yourself confused, rewind, and rewatch.

The Video For This Mastery Badge Can Be Opened Using This QR Code

This Mastery Badge includes one video:



Watch The Assigned Science Video

Scan This QR Code To Open And Watch The Assigned Video For This Mastery Badge

Check Point

I watched the video carefully and understood what Mr. Bertoch taught me.

(If not, that is okay. Watch the video again, and discuss it with an adult)

What I Learned From This Video



One very powerful way to help yourself remember what you learned from the video is to summarize it in your own words and in the form of pictures.

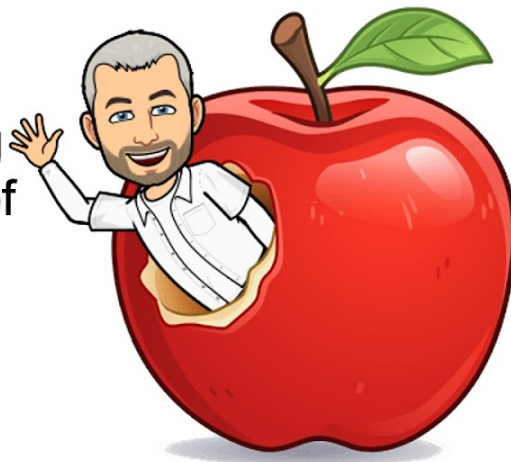
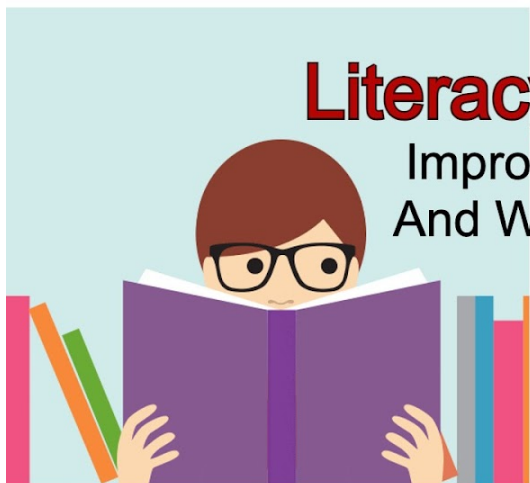
Write one sentence in your own words explaining what you learned from the video. Then draw a picture of something you learned from the video.

What I learned from this video (One Sentence):

A picture of something I learned from the video:

Literacy Practice

Improving Our Reading
And Writing In Search of
Knowledge



Activity: Reading And Writing



Directions: Reading and writing are very important life skills. Good scientists must be able to learn through reading and communicate their own discoveries through writing.



Scan This QR Code To Watch Mr. Bertoch Give You Directions For This Assignment

1. Practice Reading For Understanding

Read the article below **for understanding**. Reading for understanding means that you take your time and monitor your own learning. If you get to the end of a sentence and you do not remember or understand what you read, **re-read it**.

2. Practice Writing To Communicate

Complete the writing prompt below. Do your very best to write clearly so that others will understand what you are saying. This means using correct spelling, grammar, and writing, taking your time to think about the best ways to clearly communicate to others the main ideas that you are trying to get across to them.



Read The Assigned Article Carefully For Understanding.
<https://handsomescienceteacher.com/Online-science-classes-kids/why-are-the-tropics-warm-why-are-the-poles-cold/>

Scan This QR Code To Open And Read The Article That Goes With This Mastery Badge

Check Point

Let's make sure that you really did read for understanding!

Remember that it is important to hold yourself accountable to a high standard and to take pride in your own success as a learner.

I Read For Understanding. I did not skim the article. I understood the material that the article discussed.

Quiz Time

Complete the quiz at the end of the article and post your score in the box below. Your goal is to get at least 75% on the quiz. Did you accomplish this goal?

%

Now Let's Write To Communicate

Remember that when you write to communicate you are taking your time, and explaining the topic in a detailed and concise way. Don't rush! You are not in a hurry. Think about what you are going to say, and plan how you will say it. So that someone else who reads your sentences will understand them easily.

Writing Prompt: Write two sentences explaining why the poles are cold and the tropics are warm.

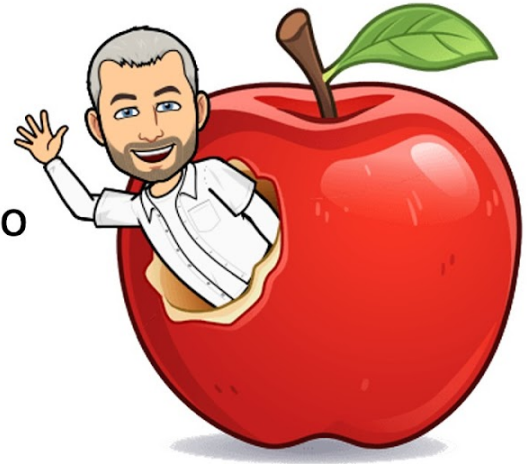
Name: _____

Date: _____



Applying Lab

Proving That We Can Do
It Ourselves



Applying Poles & Tropics

Applying What We Have Learned.

Scan This QR Code To Watch Mr. Bertoch Give You Directions For This Assignment



Can You Sell Santa's Workshop?

Santa is retiring to the tropics so that he can spend his days surfing in the sun. He and Mrs. Clause have hired you as a real estate agent to sell their home and workshop.

Create a brochure that you can hand out to potential buyers listing the features of the home and why people should consider buying it. In your brochure discuss the climate and what causes it, as well as some of the plants and animals that buyers might encounter if they move to one of the poles.

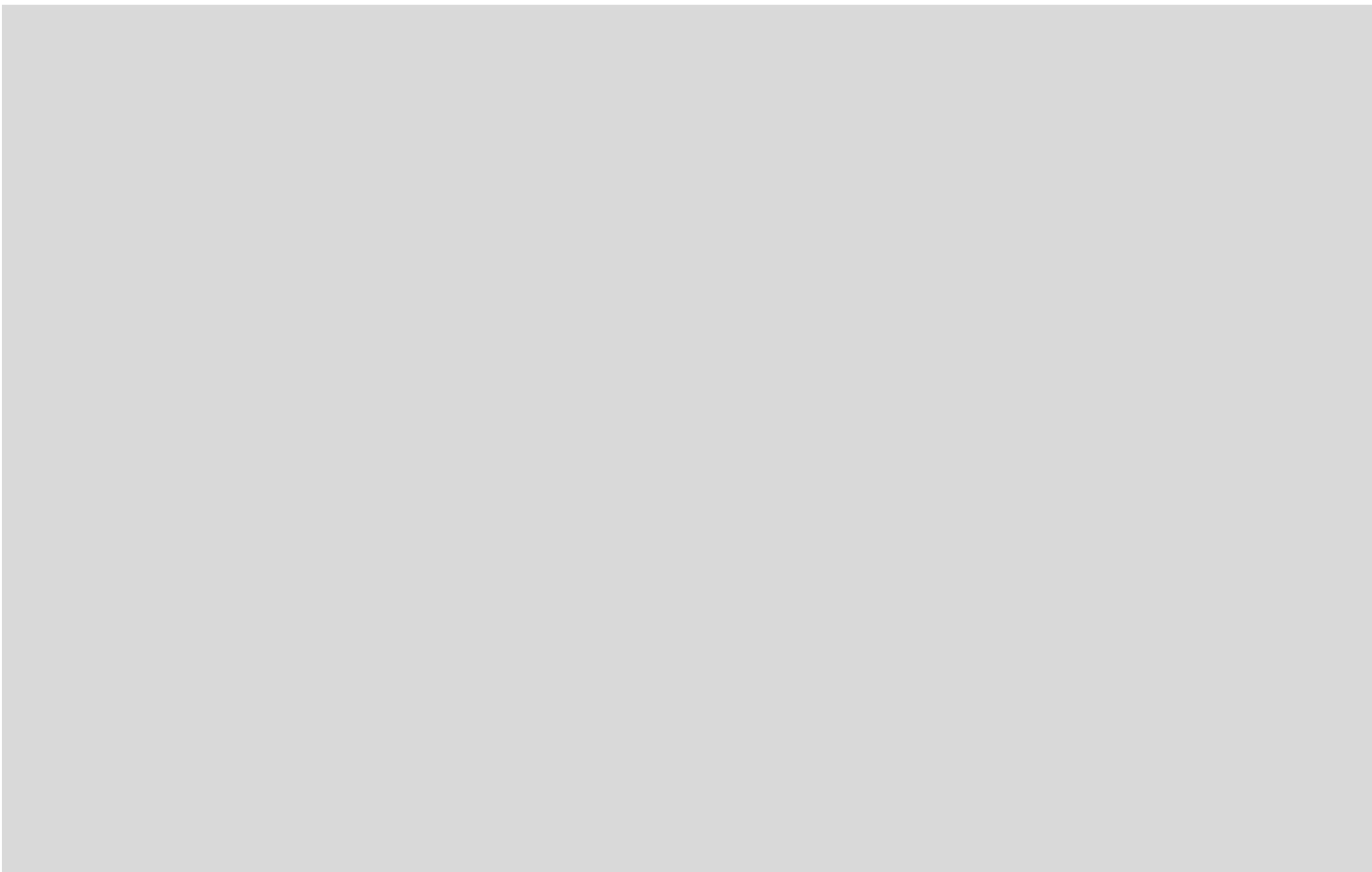


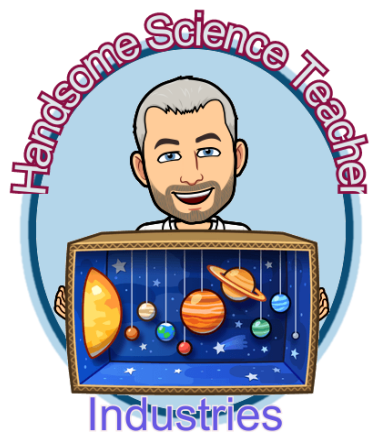
Now Find Santa A New Home In The Tropics

Really great job on selling Santa's home! Though now the Clauses have nowhere to live. They have once again hired you. This time to find them a new home in the tropics.

Draw A House For Santa & Mrs. Clause

Create a detailed drawing of a home in the tropics where Mr. and Mrs. Clause can live. Include at least three plants and three animals in your drawing that they might encounter while living there.





Congratulations! You Have Completed The Entire Mastery Badge

You have worked really hard to earn this mastery badge. More importantly, you have worked hard to earn your knowledge!

Time To Evaluate Your Work

Check each of the following to evaluate your work:

1. Did you do every assignment?
2. Did you read the assigned article?
3. Did you watch the assigned video?
4. Did you answer all the questions using complete sentences?
5. Are your answers accurate?

My Self-Evaluation:

Based on the criteria listed above, I believe I have passed off this Mastery Badge because...
(Be detailed and specific)

Mastery Badge Counselor Evaluation:

I have reviewed this student's work. Based on the criteria listed above I hereby certify that they have passed off the Mastery Badge because... (Be detailed and specific) Note: Any adult may serve as a Mastery Badge Counselor, so long as they are committed to ensuring the highest standards of excellence.

Student's Signature

Date

**Signature of Mastery
Badge Counselor**

Date

Certificate For Your Homeschool Records

The following certificate which has been awarded through self-evaluation by the student, and also certified by a mastery badge counselor proves that the student listed thereon has completed all the work and has mastered all the concepts for the specified topic.

Keep this on file as evidence of your successful completion of this topic.

If audited by the State, these certificates stand as evidence that you have worked on and successfully completed a rigorous science curriculum.

