**Wednesday August 7, 2019**

Living Earth: Week 1 Day 1

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Apply collaborative group and partner techniques to practice class expectations and share information about yourself while learning about others.

**Essential Question:** How can we work together to benefit everyone in this class and maximize learning?

**Agenda:**

* 1. Note cards
  2. “Mingle Bingo”

**Thursday August 8, 2019**

Living Earth: Week 1 Day 2

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Apply collaborative group and partner techniques to practice class expectations and share information about yourself while learning about others.

**Essential Question:** How can we work together to benefit everyone in this class and maximize learning?

**Agenda:**

1. “All about you” page (finish and turn in)

**Friday August 9, 2019**

Living Earth: Week 1 Day 3

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Read a scientific article and identify the author’s claim, the evidence and the reasoning that supports the claim. Discuss.

**Essential Question:** What is the difference between claims, evidence and reasoning?

**Agenda:**

1. Syllabus (Discuss)
2. Discuss Claims, Evidence and Reasoning and write the definitions on the article.
3. Read “Turtle Shell” Article
4. “Claims, Evidence and Reasoning” (Turtle Shell) – Explain the claim of the article, the evidence noted in the article and the reasoning.

**Monday August 12, 2019**

Living Earth: Week 2 Day 4

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Read a scientific article and identify the author’s claim, the evidence and the reasoning that supports the claim. Discuss.

**Essential Question:** What is the difference between claims, evidence and reasoning?

**Agenda:**

1. Discuss Claims, Evidence and Reasoning and write the definitions on the article.
2. “Claims, Evidence and Reasoning” (Turtle Shell) – Explain the claim of the article, the evidence noted in the article and the reasoning.

**3. Media Center for Chromebooks**

**Tuesday August 13, 2019**

Living Earth: Week 2 Day 5

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Develop a hypothesis and design an experiment to catch the criminal who stole the puma skull. Collaboratively write a police report.

**Essential Question:** What is the difference between claims, evidence and reasoning?

**Agenda:**

1. Design an experiment
2. Run Experiment
3. Complete “Police Report”
4. Clean Up
5. Share out

**Wednesday August 14, 2019**

Living Earth: Week 2 Day 6

**Ms. Ballard’s (School Info)**

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Organize notebooks in order to prepare yourself for success in the class. Listen to

**Essential Question:** What is the difference between claims, evidence and reasoning?

**Agenda:**

1. Ms. Ballard (Spoke to classes about school expectations).
2. Note book set-up

**Thursday August 15, 2019**

Living Earth: Week 2 Day 7

**Standard**: Become familiar with classmates and class norms including working with partners and families.

**Learning Target**: Compare and contrast a living organism with a non-living object. Write Cornell notes about the characteristics that all living things share.

**Essential Question:** What are the characteristics that all living things share?

**Agenda:**

1. Compare and contrast (rock or shell vs. worm or beetle)

2. Write Cornell notes (8 characteristics)

**Friday August 16, 2019**

Living Earth: Week 2 Day 8

**Standard**: Characteristics of Life.

**Learning Target**: Write Cornell notes about the characteristics that all living things share. Add questions to the notes and summarize.

**Essential Question:** What are the characteristics that all living things share?

**Agenda:**

1. Finish Notes (p. 3)

2. Amoeba Sisters (Characteristics of Living Things)

4. Summarize notes

5. Review Activity (Quiz on Tues)

**Monday August 19, 2019**

Living Earth: Week 3 Day 9

(RALLY)

**Standard**: Characteristics of Life.

**Learning Target**: Add questions to the notes using Costa’s levels. Review the characteristics of life in a collaborative game and make predictions about why the population of buffalo in the Serengeti increased.

**Essential Question:** What are the characteristics that all living things share?

**Agenda:**

1. Add 2 questions (share out)

2. Practice/Review for quiz

3. Serengeti Discussion (p. 4)

**Tuesday August 20, 2019**

Living Earth: Week 3 Day 10

**Standard**: Characteristics of Life.

**Learning Target**: Write a claim answering which of two items is a living organisms and list evidence with reasoning to support your claim. Model possible predictions about why the population of buffalo in the Serengeti increased.

**Essential Question:** Why did the buffalo population increase?

**Agenda:**

1. Characteristics of Life Quiz

2. Serengeti Discussion (p. 4)

3. Serengeti Video Clip

**Wednesday August 21, 2019**

Living Earth: Week 3 Day 11

**Standard**: Characteristics of Life.

**Learning Target**: Determine needed areas of study to answer the question about why the buffalo population in the Serengeti increased.

**Essential Question:** What are the characteristics that all living things share?

**Agenda:**

1. Finished Buffalo (Serengeti) paper (p. 4)

2. Abiotic vs. Biotic factors (p. 5)

3. Serengeti Video Clip

**Thursday August 22, 2019**

Living Earth: Week 3 Day 12

**Standard**: Ecology.

**Learning Target**: Write statements about how abiotic and biotic factors can limit a population. Collaboratively research, design and create a model of a food web representing a specific biome.

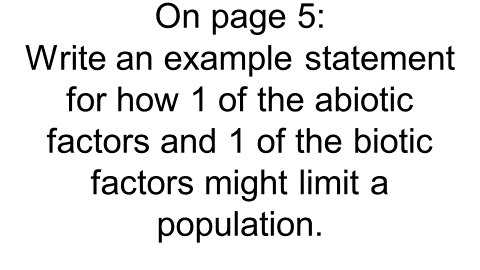
**Essential Question:**

**Agenda:**

1. Add statement to Abiotic vs. Biotic factors (p. 5)

2. Limiting Factors and Carrying Capacity Video clips (discussion)

3. Food web projects



**Friday August 23, 2019**

Living Earth: Week 3 Day 13

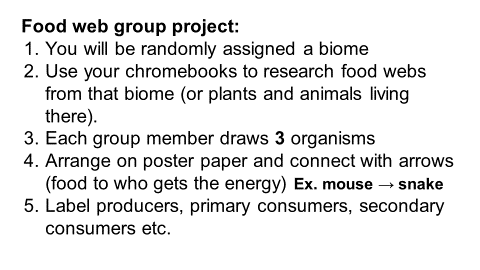
**Standard**: Ecology.

**Learning Target**: Collaboratively research, design and create a model of a food web representing a specific biome.

**Essential Question:**

**Agenda:**

1. Food web projects



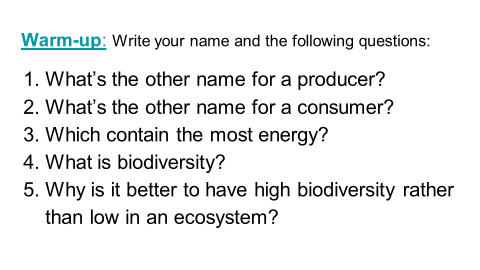
**Monday August 26, 2019**

Living Earth: Week 4 Day 14

**Standard**: Ecology.

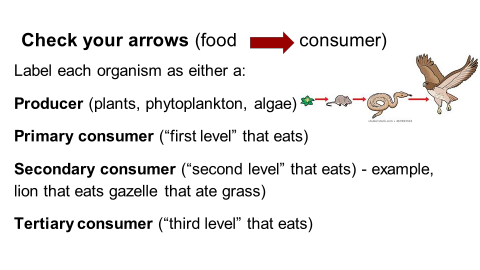
**Learning Target**: Watch a video and answer key questions related to biodiversity. Collaboratively research, design and create a model of a food web representing a specific biome.

**Essential Question:**

**Agenda:**

1. Biodiversity warm-up:

2. Food web projects:



**Tuesday August 27, 2019**

Living Earth: Week 4 Day 15

**Standard**: Ecology

**Learning Target**: Collaboratively research, design and create a model of a food web representing a specific biome.

**Essential Question:** Why is biodiversity important?

**Agenda:**

1. Finish food web projects

**Wednesday August 28, 2019**

Living Earth: Week 4 Day 16

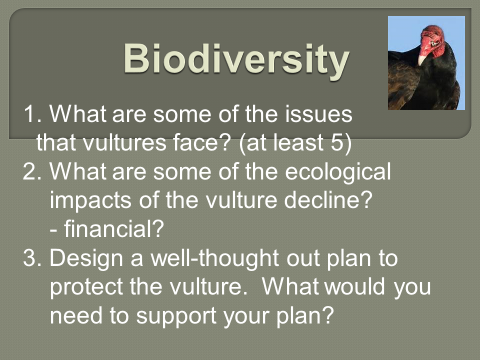
**Standard**: Ecology.

**Learning Target**: Read a scientific article and underline or highlight important ideas. Answer analysis questions to check for understanding.

**Essential Question:** What is biodiversity and why is it important?

**Agenda:**

1. Vulture Article (p. 6):



**Thursday August 29, 2019**

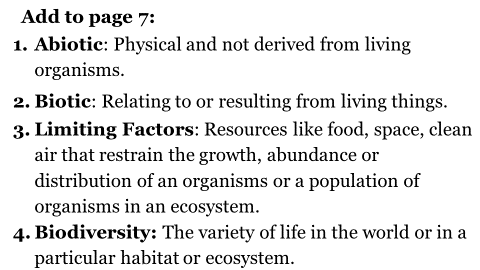
Living Earth: Week 4 Day 17

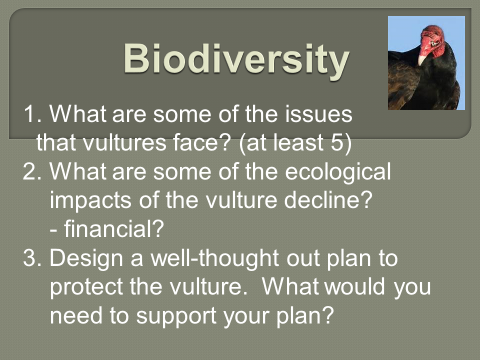
**Standard**: Ecology.

**Learning Target**: Create a detailed plan to protect the vultures and share out to the class.

**Essential Question:** What is biodiversity and why is it important?

**Agenda:**

1.

2. Vulture Article Plans – share out (p. 6):

3. Ted Talk (California Condors)

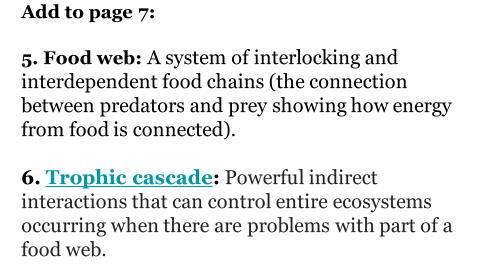
**Friday August 30, 2019**

Living Earth: Week 4 Day 18

**Standard**: Ecology.

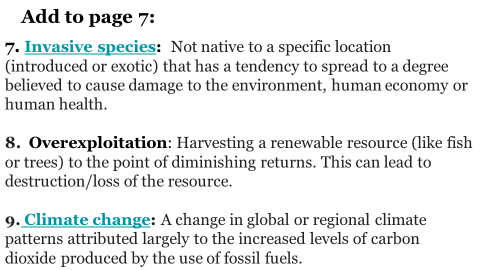
**Learning Target**: Write key vocabulary to study for a quiz, brainstorm impacts of humans on the environment and research invasive species.

**Essential Question:** How do humans impact the environment?

**Agenda:**

1. Write vocab 5 and 6:

2. Human impacts activity



3. Write vocab 7-9:

**Tuesday September 3, 2019**

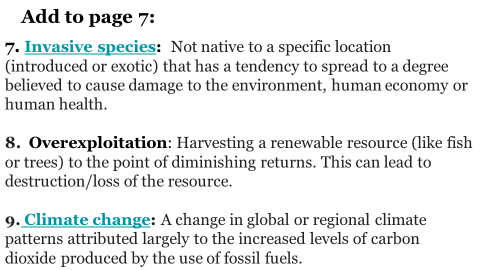
Living Earth: Week 5 Day 19

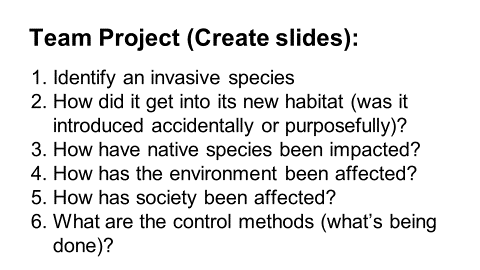
**Standard**: Ecology.

**Learning Target**: Watch video clips related to ecology vocab and research an invasive species. Collaboratively create a slideshow to share with classmates.

**Essential Question:** What is an invasive species and how can they affect the environment?

**Agenda:**

1. Video clips:

2. Start Invasive Species Projects:

**Wednesday September 4, 2019**

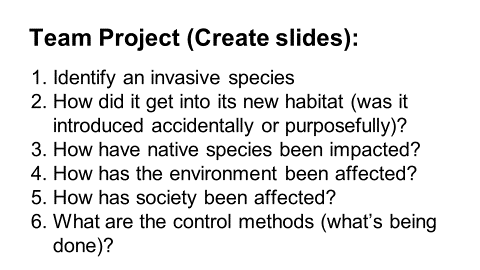
Living Earth: Week 5 Day 20

**Standard**: Ecology.

**Learning Target**: Collaboratively create a slideshow to teach classmates about an invasive species.

**Essential Question:** What is an invasive species and how can they affect the environment?

**Agenda:**

1. Invasive Species Projects:

**Thursday September 5, 2019**

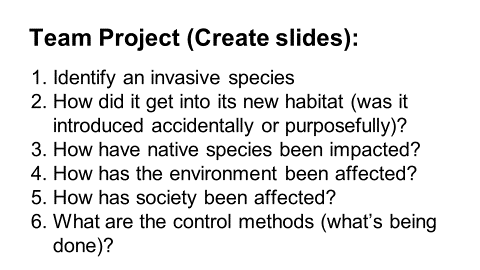
Living Earth: Week 5 Day 21

**Standard**: Ecology

**Learning Target**: Collaboratively create a slideshow to teach classmates about an invasive species. Present to the class to teach them about an invasive species and their effects on the environment.

**Essential Question:** What is an invasive species and how can they affect the environment?

**Agenda:**

1. Invasive Species Projects:

2. Presentations

**Friday September 6, 2019**

Living Earth: Week 5 Day 22

**Standard**: Ecology

**Learning Target**: Present to the class to teach them about an invasive species and their effects on the environment. Write vocabulary to study for the test.

**Essential Question:** What is an invasive species and how can they affect the environment?

**Agenda:**

1. Presentations

2. Vocabulary

**Monday September 9, 2019**

Living Earth: Week 6 Day 23

**Standard**: Ecology

**Learning Target**: Write and discuss ecology specific vocabulary and watch video clips to solidify concepts. Collaboratively review by matching words to definitions.

**Essential Question:** What types of relationships can species have with each other in shared habitats?

**Agenda:**

1. Finish ecology vocab (p. 7) + video clips

2. “Matching review”

**Tuesday September 10, 2019**

Living Earth: Week 6 Day 24

**Standard**: Ecology

**Learning Target**: Watch a video clip of an example of a mutualistic relationship. Categorize symbiotic relationships by collaboratively matching cards with organisms and information. Explain two examples for each relationship and summarize.

**Essential Question:** What types of relationships can species have with each other in shared habitats?

**Agenda:**

1. Acacia tree and acacia ant video clip

2. “Symbiosis matching activity”

3. Page 8: explain 2 of each and summarize

**Wednesday September 11, 2019**

Living Earth: Week 6 Day 25

**Standard**: Ecology

**Learning Target**: Collaboratively review for quiz. Demonstrate knowledge of ecological concepts by scoring well on a quiz. .

**Essential Question:** What types of relationships can species have with each other in shared habitats?

**Agenda:**

1. Vocab matching review

2. Vocab quiz

3. Symbiosis video clips: cowbird, jewel wasp etc.

4. Update notebooks

**Thursday September 12, 2019**

Living Earth: Week 6 Day 26

**Standard**: Earth History

**Learning Target**: Brainstorm ideas to explain the phenomena that early insects were larger than insects today. Review what’s known about earth’s history.

**Essential Question:** Why were prehistoric insects larger than insects today?

**Agenda:**

1. “Insect size phenomenon” – whiteboards

2. History of earth background info (video clip)

3. Intro timeline project

**Friday September 13, 2019**

Living Earth: Week 6 Day 27

**Standard**: Earth History

**Learning Target**: Model earth’s history by constructing a timeline with key atmospheric, geological and biological events.

**Essential Question:** How was early earth different from earth today?

**Agenda:**

1. Earth History Timelines

**Monday September 16, 2019**

Living Earth: Week 7 Day 28

**Standard**: Earth History

**Learning Target**: Model earth’s history by constructing a timeline with key atmospheric, geological and biological events.

**Essential Question:** How was early earth different from earth today?

**Agenda:**

1. Earth History Timelines

**Tuesday September 17, 2019**

Living Earth: Week 7 Day 29

**Standard**: Earth History

**Learning Target**: Model earth’s history by constructing a timeline with key atmospheric, geological and biological events. Research a time period to make a poster to present to the class.

**Essential Question:** How was early earth different from earth today?

**Agenda:**

1. Earth History Timelines

2. Start Partner Earth History Period posters

**Wednesday September 17, 2019**

Living Earth: Week 7 Day 30

**Standard**: Earth History

**Learning Target**: Model earth’s history by constructing a timeline with key atmospheric, geological and biological events. Research a time period to make a poster to present to the class.

**Essential Question:** How was early earth different from earth today?

**Agenda:**

1. Earth History Timelines – finish

2. Earth History Period posters

**Thursday September 18, 2019**

Living Earth: Week 7 Day 31

**Standard**: Earth History

**Learning Target**: Research a time period to make a poster to present to the class. Brainstorm prediction for future earth and summarize a video on the sixth mass extinction.

**Essential Question:** How was early earth different from earth today?

**Agenda:**

1. Earth History Period posters

2. Brainstorm: predictions for earth (p. 9)

3. Extinction video (plus summary) page 9

**Friday September 19, 2019**

Living Earth: Week 7 Day 32

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Watch a video clip and summarize information about the 6th mass extinction, Discuss upcoming biome projects and write Cornell notes.

**Essential Question:** How do we have oxygen in our atmosphere?

**Agenda:**

1. Pers. 2 and 6: Watch video and summarize, Periods 4 and 5: discuss summaries.

2. “Biome in a Bottle” discussion

3. Photosynthesis notes (p. 10)

**Monday September 23, 2019**

Living Earth: Week 8 Day 33

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Compete in an exercise to review photosynthesis, write Cornell notes about photosynthesis and summarize.

**Essential Question:** How do we have oxygen in our atmosphere?

**Agenda:**

1. Photosynthesis competition.

2. Photosynthesis notes (p. 10)

3. Summary

**Tuesday September 24, 2019**

Living Earth: Week 8 Day 34

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Collaboratively plan and research for the biome in a bottle project. Complete a proposal to document which group member is responsible for which portion.

**Essential Question:** How will you set up your biome in a bottle?

**Agenda:**

1. Biome Planning

Period 2 had HERO TRAINING

**Wednesday September 25, 2019**

Living Earth: Week 8 Day 35

**SUB DAY**

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: LIFE: Plants video

**Essential Question:**

**Agenda:**

1. Life “Plants” with video guide

**Thursday September 26, 2019**

Living Earth: Week 8 Day 36

**SUB DAY**

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: COSMOS: “Lost Worlds”

**Essential Question:**

**Agenda:**

1. Cosmos: “Lost Worlds” episode with video guide

**Friday September 27, 2019**

Living Earth: Week 8 Day 37

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: HERO TRAINING

**Essential Question:**

**Agenda:**

1. Periods 2 and 6 researched biome planning

2. Periods 4 and 5 had HERO training.

**Monday September 30, 2019**

Living Earth: Week 9 Day 38

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Summarize Cornell notes and read and analyze a scientific article about glucose.

**Essential Question:** How and why does glucose turn into cellulose and starch?

**Agenda:**

1. Finish notes (p. 10)

2. Summarize

3. Glucose Article

4. Article analysis

**Tuesday October 1, 2019**

Living Earth: Week 9 Day 39

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Model photosynthesis using Froot Loops, answer analysis questions and summarize.

**Essential Question:** *How do plants use photosynthesis to create a source of macromolecules for themselves and other organisms?*

**Agenda:**

1. Photosynthesis Model

2. Analysis Questions

3. Summary

**Wednesday October 2, 2019**

Living Earth: Week 9 Day 40

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Model photosynthesis using Froot Loops, answer analysis questions and summarize.

**Essential Question:** *How do plants use photosynthesis to create a source of macromolecules for themselves and other organisms?*

**Agenda:**

1. Finish analysis and summary

2. Notebook “pre-check”

**Thursday October 3, 2019**

Living Earth: Week 9 Day 41

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Cut out and organize reactants and products to represent photosynthesis and collaboratively plan a model.

**Essential Question:** *What are the reactants and products of photosynthesis?*

**Agenda:**

1. Photosynthesis “Cut-outs” (p. 13)

2. Biome project (check-in)

3. Macromolecule Reading

**Friday October 4, 2019**

Living Earth: Week 9 Day 42

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Read a scientific article and mark for specific information. Use the information to classify information into a grid to compare and contrast the different macromolecules.

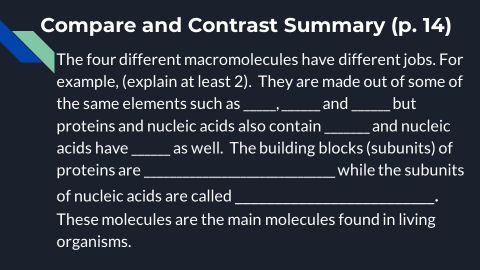
**Essential Question:** *What are similarities and differences between the 4 groups of macromolecules?*

**Agenda:**

1. Macromolecule reading

2. “Macromolecule Study Guide” p. 14

3. Summary:



**Tuesday October 8, 2019**

Living Earth: Week 10 Day 43

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Build models to demonstrate the connection between photosynthesis and cellular respiration.

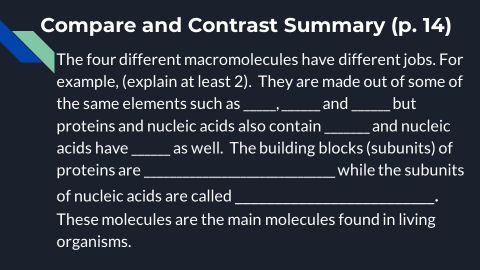
**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Biome Building

2. “Macromolecule Study Guide” p. 14

3. Summary:



**Wednesday October 9, 2019**

Living Earth: Week 10 Day 44

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Build models to demonstrate the connection between photosynthesis and cellular respiration.

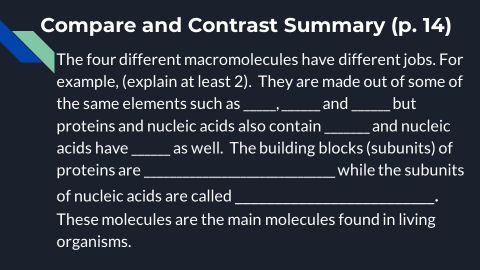
**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Biome Building

2. “Macromolecule Study Guide” p. 14

3. Summary:



4. Join Google Classroom and begin Lab reports

**Thursday October 10, 2019**

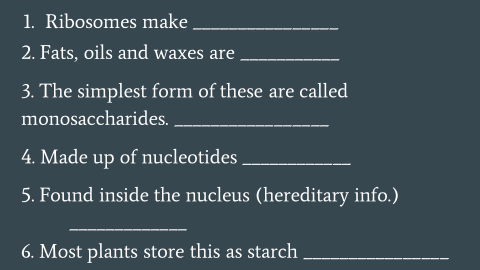
Living Earth: Week 10 Day 45

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Answer questions to prepare for quiz, watch a video clip to review and write Cornell notes about Cellular Respiration.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Macromolecule Warmup:

2. Amoeba Sisters

3. Share-out summary (p. 14)

4. Cell Respiration notes (p. 15)

**Friday October 11, 2019**

Living Earth: Week 10 Day 46

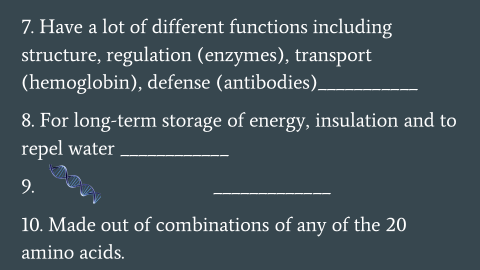
**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Answer questions to prepare for quiz, and write Cornell notes about Cellular Respiration.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Macromolecule Warmup #2:



2. Cell Respiration notes (p. 15)

**Monday October 14, 2019**

Living Earth: Week 11 Day 47

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Answer a question to prepare for quiz, and write Cornell notes about Cellular Respiration. Summarize your notes and write two questions.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Macromolecule Test Practice #3:    Which macromolecule can be made by adipose cells?

2. Cell Respiration notes (p. 15)

3. Summary

4. Two questions (add to p. 15)

**Tuesday October 15, 2019**

Living Earth: Week 11 Day 48

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Demonstrate knowledge of macromolecules by scoring well on a quiz. Write a lab report about your biome projects.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Macromolecule Test

2. Lab report (biomes)

**Wednesday October 16, 2019**

Living Earth: Week 11 Day 49

**College Prep Day**

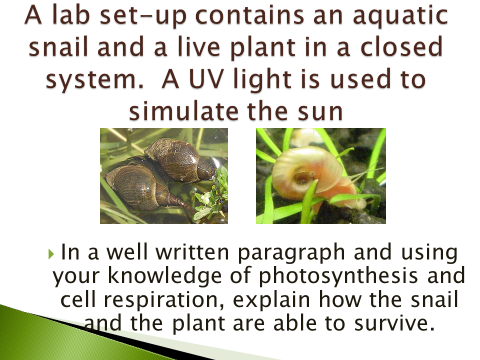
**Thursday October 17, 2019**

Living Earth: Week 11 Day 50

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Write a paragraph that explains the connection between photosynthesis and cellular respiration to practice for the exam. Revise slides 18 of the lab reports.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Practice Paragraph:

2. Finish cut-outs on page 16

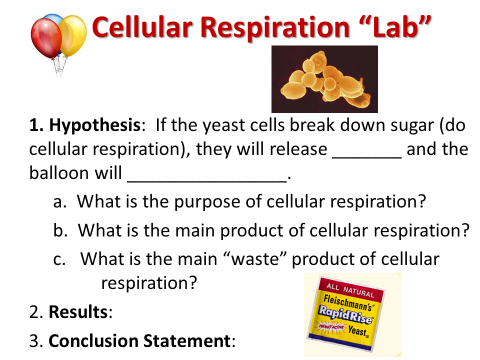
**Friday October 18, 2019**

Living Earth: Week 11 Day 51

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Write a hypothesis about what will happen if yeast cells undergo cellular respiration. Write data and conclusions in a ‘mini-lab report.’ Revise slides 1-8 of the biome lab reports and review your group for slide 8.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. “Cell respiration Demo” – set up and write hypothesis:

2. Revise lab reports (add slide 8)

3. Write conclusions for lab report

**Monday October 21, 2019**

Living Earth: Week 12 Day 52

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Review photosynthesis and cellular respiration through reading text and answering questions, interpreting graphs and drawing a model.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Read “Lesson 19”

2. Answer questions (p. 18)

3. Analyze graphs (p. 18)

4. Draw model

**Tuesday October 22, 2019**

Living Earth: Week 12 Day 53

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Review the connection between cellular respiration and photosynthesis by using the whiteboards and collaboratively modeling. Review cellular respiration through reading an article and answering questions.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Whiteboard review

2. Cell Respiration (exercise) article (p. 19)

**Wednesday October 23, 2019**

Living Earth: Week 12 Day 54

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

**Learning Target**: Demonstrate understanding of photosynthesis and cellular respiration by scoring well on an exam.

**Essential Question:** *How are photosynthesis and cellular respiration connected?*

**Agenda:**

1. Exam (model and questions)

**Thursday October 24, 2019**

Living Earth: Week 12 Day 55

**Standard**: Cell Energy (Photosynthesis and Cellular Respiration)

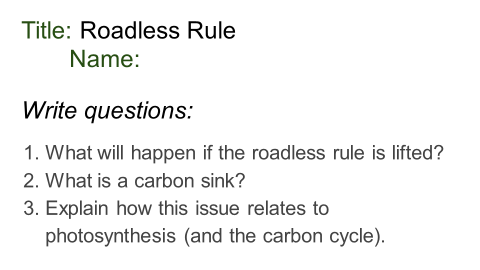
**Learning Target**: Listen to an NPR podcast about the Roadless rule and answer questions. Organize and complete notebooks.

**Essential Question:** *What consequences would there be of lifting the Roadless Rule?*

**Agenda:**

1. Podcast and questions

2. Organize notebooks (catch up)



**Friday October 25, 2019**

Living Earth: Week 12 Day 56

**Standard**: DNA

**Learning Target**: Gather evidence to support a claim for the structure of DNA and build a model that represents your claim.

**Essential Question:** *What is the structure of DNA?*

**Agenda:**

1. DNA evidence

2. Build model (claim)

3. Explain reasoning (column 2)

4. Paragraph

**Monday October 28, 2019**

Living Earth: Week 13 Day 57

**Standard**: DNA

**Learning Target**: Gather evidence to support a claim for the structure of DNA and build a model that represents your claim.

**Essential Question:** *What is the structure of DNA?*

**Agenda:**

1. Finish models (claims)

2. Explain reasoning (column 2)

3. Paragraph (p. 20) (evidence – reasoning – claim)

4. “Twisting Tale of DNA”

5. “DNA replication”

**Tuesday October 29, 2019**

Living Earth: Week 13 Day 58

**Standard**: Mutations (DNA)

**Learning Target**: Write Cornell notes to distinguish between the different types of chromosomal and gene mutations.

**Essential Question:** *What can happen if there are mistakes in the DNA?*

**Agenda:**

1. Attach DNA model “claims” to p. 20

2. Mutation notes (p. 21)

3. Summary

4. Mutation video clip (Amoeba sisters)

**Wednesday October 30, 2019**

Living Earth: Week 13 Day 59

**Standard**: Mutations

**Learning Target**: Mark and highlight Cornell notes and share out summaries. Match mutation “stories” to definitions and discuss. Answer analysis questions.

**Essential Question:** What are the different types of mutations?

**Agenda:**

1. Mark notes (p. 21)

2. Summary share-out

3. “Mutation Stations” (p. 22)

4. Analysis questions

**Thursday October 31, 2019**

Living Earth: Week 13 Day 60

**Standard**: Mutations

**Learning Target**: Read scientific information online to complete a “Webquest” discussing various examples of mutations.

**Essential Question:** What are the different types of mutations? Are they harmful, beneficial or neither?

**Agenda:**

1. “Mutation Exploration” (p. 23)

**Friday November 1, 2019**

Living Earth: Week 13 Day 61

**Standard**: Mutations

**Learning Target**: Read a scientific article, annotate, evaluate and discuss. Watch a video clip about albinism and summarize and write a reflection about a second video clip.

**Essential Question:** What can go wrong with DNA? Are the effects harmful or beneficial?

**Agenda:**

1. Brainstorm
2. Read article
3. Annotate
4. Analyze
5. Video 1 (summary)
6. Video 2 (reflection)

**Monday November 4, 2019**

Living Earth: Week 14 Day 62

**Standard**: Mutations

**Learning Target**: Write a reflection about a second video clip following a boy with albinism. Watch a video clip on adaptations and brainstorm a possible adaptation. Categorize into structural or behavioral and write notes about natural selection.

**Essential Question:** What are adaptations?

**Agenda:**

1. Video 2 (reflection) – p. 24
2. Adaptations (sticky notes)
3. Natural selection PPT (p. 25)

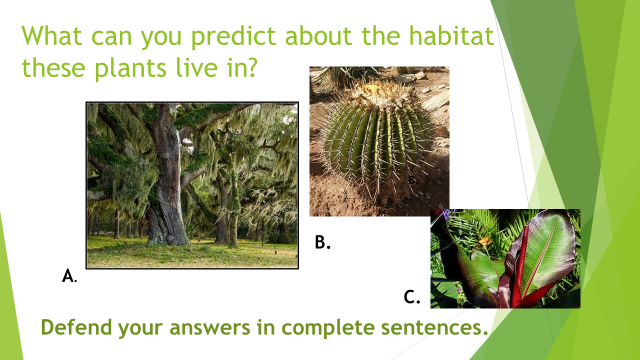
**Tuesday November 5, 2019**

Living Earth: Week 14 Day 63

**Standard**: Adaptations

**Learning Target**: Write predictions about plant adaptations. Write key facts about natural selection, watch video clips, sketch and summarize.

**Essential Question:** What are adaptations?

**Agenda:**

1. Plant adaptation warm-up:
2. Natural selection PPT (p. 25)
3. Summary

**Wednesday November 6, 2019**

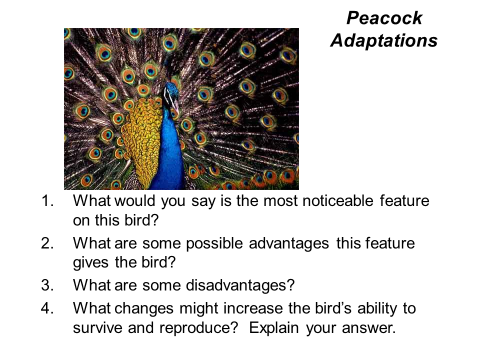
Living Earth: Week 14 Day 64

**Standard**: Adaptations

**Learning Target**: Write predictions about peacock adaptations. Write key facts about natural selection, watch video clips, sketch and summarize.

**Essential Question:** What are adaptations?

**Agenda:**

1. Peacock adaptation warm-up (just discuss):
2. Natural selection PPT (p. 25)

**Thursday November 7, 2019**

Living Earth: Week 14 Day 65

**Standard**: Adaptations/Evolution

**Learning Target**: Read, analyze and discuss a scientific article about the evolution of squid eyes.

**Essential Question:** How has the Sperm Whale influenced the evolution of Giant Squid eyes?

**Agenda:**

1. Read article
2. Mark/annotate (p. 26)
3. Analysis questions (p. 26)

**Friday November 8, 2019**

Living Earth: Week 14 Day 66

**Standard**: Adaptations/Evolution

**Learning Target**: Explore the anatomy of the squid and focus on what adaptations it has that would help it survive in the ocean.

**Essential Question:** How are squid adapted to survive in the ocean?

**Agenda:**

1. Squid Exploration

2. Adaptation Chart

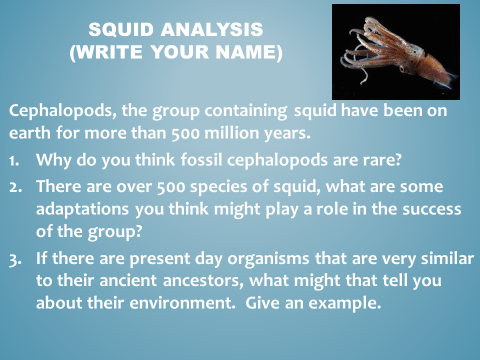
**Tuesday November 12, 2019**

Living Earth: Week 15 Day 67

**Standard**: Adaptations/Evolution

**Learning Target**: Consider how adaptations might affect the survival of species and draw examples of the principles of natural selection.

**Essential Question:** What adaptations might have allowed squid to survive for 500 million years?

**Agenda:**

1. Cephalopod Warm-up:

2. Finish p. 25 (Natural Selection PPT)

**Wednesday November 13, 2019**

Living Earth: Week 15 Day 68

**Standard**: Adaptations/Evolution

**Learning Target**: Watch video clips and discuss the different types of fossils. Take key notes from a video about the evolution of eyes in different species.

**Essential Question:** How are organisms fossilized?

**Agenda:**

1. “How fossils are made”

2. Started Evolve “Eyes” (p. 27)

**Thursday November 14, 2019**

Living Earth: Week 15 Day 69

**Standard**: Adaptations/Evolution

**Learning Target**: Take key notes from a video about the evolution of eyes in different species.

**Essential Question:** How have eyes evolved over time?

**Agenda:**

1. Evolve “Eyes” (p. 27)

**Friday November 15, 2019**

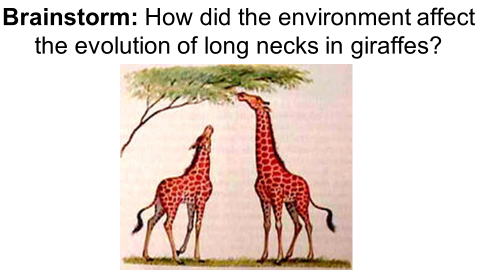
Living Earth: Week 15 Day 70

**Standard**: Adaptations/Evolution

**Learning Target**: Brainstorm natural selection and then randomly determine characteristics of an environment to create an organism with adaptations that would help it survive in its situation.

**Essential Question:** How is your creature adapted to its environment?

**Agenda:**

1.

2. “Design a creature”

**Monday November 18, 2019**

Living Earth: Week 16 Day 71

**Standard**: Adaptations/Evolution

**Learning Target**: Organize notebooks and watch a video clip about the evidence for evolution. Analyze amino acids to look for relatedness in species.

**Essential Question:** How do organisms evolve?

**Agenda:**

1. Finish and turn in “creatures”

2. Check organization of notebooks (add new “Table of Contents” page)

3. “Stated Clearly” evidence of evolution

4. Amino Acid comparisons (p. 29)

**Tuesday November 19, 2019**

Living Earth: Week 16 Day 72

**Standard**: Adaptations/Evolution

**Learning Target**: Watch a video clip on the speciation of finches in the Galapagos and discuss the evolution of the pepper moths. Understand how speciation occurs by writing key facts from a PowerPoint.

**Essential Question:** How do new species arise?

**Agenda:**

1. “Beak of the Finch” (HHMI) video clip

2. Speciation PPT (p. 30)

**Wednesday November 20, 2019**

Living Earth: Week 16 Day 73

**Standard**: Adaptations/Evolution

**Learning Target**: Watch a video clip about evolution and write about something that you learned. Understand how speciation occurs by writing key facts from a PowerPoint.

**Essential Question:** How do new species arise?

**Agenda:**

1. “12 days of evolution” video clip

2. Speciation PPT (p. 30)

**Thursday November 21, 2019**

Living Earth: Week 16 Day 74

**Standard**: Adaptations/Evolution

**Learning Target**: Watch a video clip about evolution and discuss the evolution of the pepper moths. Understand how speciation occurs by writing key facts from a PowerPoint.

**Essential Question:** How do new species arise?

**Agenda:**

1. “Science of skin color” (Ted Ed) video clip

2. Pepper Moth Practice

2. Speciation PPT (p. 30)

**Friday November 22, 2019**

Living Earth: Week 16 Day 75

**Standard**: Evolution

**Learning Target**: Watch a video and answer questions about the evolution of dogs.

**Essential Question:** What is evidence that dogs co-evolved with humans?

**Agenda**

1) “Dogs Decoded” (with guide)

**Monday December 2, 2019**

Living Earth: Week 17 Day 76

**Standard**: Evolution

**Learning Target**: Understand convergent evolution by matching organisms with analogous structures in similar niches. Write key facts from a PowerPoint on speciation.

**Essential Question:** How do organisms have analogous structures in similar environments?

**Agenda**

1) Convergent Evolution Chart (p. 31)

2) Speciation PowerPoint (p. 30)

**Tuesday December 3, 2019**

Living Earth: Week 17 Day 77

**Standard**: Evolution

**Learning Target**: Read and analyze an article about the evolution of lizards in a white sand environment. Discuss and interpret each paragraph with a partner and summarize.

**Essential Question:** How did the lizards adapt to their environment?

**Agenda**

1) Lizard article reading activity (p. 32)

2) Lizard summary (p. 32)

3) Speciation PowerPoint (p. 30)

**Wednesday December 4, 2019**

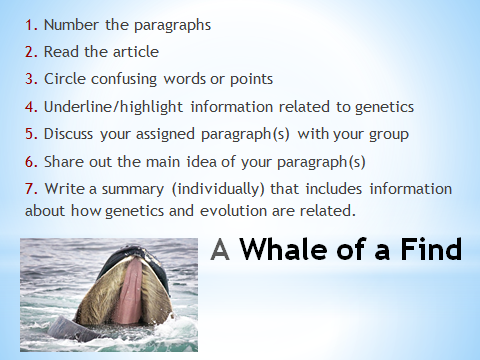
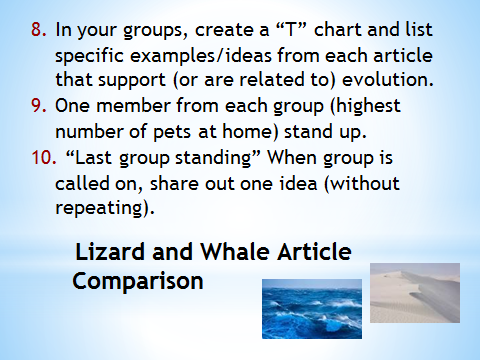
Living Earth: Week 17 Day 78

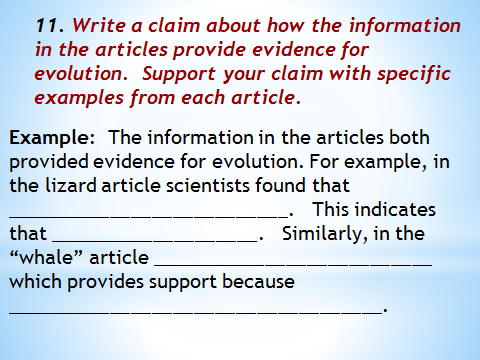
**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Read and analyze a scientific article on the evolution of baleen in whales. Compare the evolutionary aspects of the whale article to the lizard article analyzed yesterday and write a comparison summary.

**Essential Questions:** How are genes related to evolution?

**Agenda:**

1. Whale article
2. Lizard and Whale article comparison



**Thursday December 5, 2019**

Living Earth: Week 17 Day 79

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Discuss claims comparing the evolutionary evidence in whales and lizards. Review patterns of evolution by answering questions and writing key facts from a PowerPoint.

**Essential Questions:** How are genes related to evolution?

**Agenda:**

1. Share out claim paragraphs (p. 33)
2. Finish PowerPoint (p. 30)
3. Patterns of Evolution (p. 34)

**Friday December 6, 2019**

Living Earth: Week 17 Day 80

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Discuss claims comparing the evolutionary evidence in whales and lizards. Review patterns of evolution by answering questions and writing key facts from a PowerPoint.

**Essential Questions:** How are genes related to evolution?

**Agenda:**

1. **Honors** (Prep Escape Boxes – decide teams)
2. Moth Practice (#2)
3. Start Human Evolution (cladograms) – p. 35

1. CP: Human Evolution (p. 35)

**Monday December 9, 2019**

Living Earth: Week 18 Day 81

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Watch video clips and write answers to questions about evolution. Practice interpreting cladograms.

**Essential Questions:** How have humans evolved?

**Agenda:**

1. **Honors** (Escape Boxes – Media Center)
2. **CP**: Human Evolution – p. 35

**Tuesday December 10, 2019**

Living Earth: Week 18 Day 82

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Watch video clips and write answers to questions about evolution. Practice interpreting cladograms.

**Essential Questions:** How have humans evolved?

**Agenda:**

1. **Honors** (Escape Boxes – Media Center) – Day 2
2. **CP**: Human Evolution – p. 35
3. Moth Practice: Quiz tomorrow
4. Skull lab intro (page 36)

**Wednesday December 11, 2019**

Living Earth: Week 18 Day 83

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Demonstrate understanding of natural selection by scoring well on a quiz.

**Essential Questions:** How did Pepper Moths evolve?

**Agenda:**

1. Natural Selection (Pepper Moth) quiz
2. Discuss, practice for “Mystery of the Skulls” lab

**Thursday December 12, 2019**

Living Earth: Week 18 Day 84

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Determine the relatedness of hominins.

**Essential Questions:** How did humans evolve?

**Agenda:**

1. Skull Lab

**Friday December 13, 2019**

Living Earth: Week 18 Day 85

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Determine the relatedness of hominins.

**Essential Questions:** How did humans evolve?

**Agenda:**

1. Skull Lab

**Monday December 16, 2019**

Living Earth: Week 19 Day 86

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Demonstrate understanding of evolution by scoring well on an exam.

**Essential Questions:** How well did you organize your notebook?

**Agenda:**

1. Evolution Test (Notebook #5)

**Tuesday December 17-Thurs. Dec. 19, 2019**

Living Earth: Week 19 Day 87-89

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Demonstrate understanding of natural selection through creating a scenario artistically and in writing to model natural selection.

**Essential Questions:** What is evolution and how does it happen?

**Agenda:**

1. Natural Selection Posters

**Friday December 20, 2019**

Living Earth: Week 19 Day 90

**Standard**: Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

**Learning Target**: Demonstrate understanding of natural selection through creating a scenario artistically and in writing to model natural selection.

**Essential Questions:** What is evolution and how does it happen?

**Agenda:**

1. Natural Selection Poster Gallery Walk
2. Class Reflection