MONDAY, JUNE 3rd

DO NOW

- In your notebooks, to be checked, solve this problem…

There are about 2.5 acres in 1 hectare, 100 hectares in 1 square kilometer, and almost 2.6 square kilometers in a square mile. These are units of Area!

Know: $2.5ac = 1ha$

$100ha = 1km^2$

$2.6km^2 = 1mi^2$

Asked: How many km^2 are in 140 acres?

TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
   - Today's **QP** = QP QUIZ PREP = Redefine the term ESTUARY and then use Pg. 77-83 to LIST 3 examples of FRESH WATER Ecosystems & 3 Examples of SALT WATER Ecosystems and then SKETCH a PICTURE of EACH (you must include 1 Animal/Plant!)
2. Open books, WORK on today's **AO!**
3. ***HW** = Read & Do Pg. 80-85!

TODAY'S ACADEMIC OBJECTIVE

Today you will SHARE your RESEARCH about the Biotic and Abiotic FACTORS unique to each BIOME!

TUESDAY, JUNE 4th

DO NOW

- In your notebooks, to be checked, solve this problem…

There are 19 kilograms in 3 stones and 2000 pounds in 1 ton. These are units of Mass & Weight!

Know:

$19kg = 3st \qquad 2000lb = 1ton$

Asked: How many stones are in 361 kilograms?

TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
   - Today's **QP** = QP QUIZ PREP = Using Pg. 67 & 76 LIST the main 6 LAND Biomes and 3 main AQUATIC Ecosystems and then SKETCH and LABEL a potential Ecological ISSUE 4 could face!
2. Open books, WORK on today's **AO!**
3. ***HW** = Work on Biome Games!

TODAY'S ACADEMIC OBJECTIVE

Today you will DESIGN a method to EDUCATE others about the ECOLOGICAL ISSUES in BIOMES!

WEDNESDAY, JUNE 5th

DO NOW

Know: The IPAT Equation is used to show how Humans IMPACT Environmental Degradation.

Asked: What does the variable "P" **most likely** not stand for?

A: Pollution **B:** Preservation

C: Population

TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
   - Today's **QP** = GRAPH this DATA!

YEAR	CARRYING CAP.	# of PIKA
1970	48	4
1980	48	16
1990	48	64
2000	48	8
2010	36	32
2020	36	28

2. Open books, WORK on today's **AO!**
3. ***HW** = Work on Biome Games!

TODAY'S ACADEMIC OBJECTIVE

Today you will DESIGN a method to EDUCATE others about the ECOLOGICAL ISSUES in BIOMES!

THURSDAY, JUNE 6th

DO NOW

There are 1000 grams in 1 kilogram, 29 kilograms in 2 slugs, and Mass Flow Rate equals Mass divided by Time. These are equations of Environmental Destruction!

Know: $1000g = 1kg \quad 29kg = 2slug$

$$MassFlow = \frac{Mass}{Time}$$

Asked: What Mass of trash in kilograms will flow into a river with a Mass Flow Rate of $527\frac{kg}{hr}$ after a Time of 17 hours?

TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
   - Today's **QP** = QP BOOK REVIEW = Using Pg. 207, 223, & 233 as a guide, LIST and SKETCH at least FOUR different types of ENVIRONMENTAL ISSUES and then WRITE how you'd solve ONE!
2. Open books, WORK on today's **AO!**
3. ***HW** = Work on Biome Games!

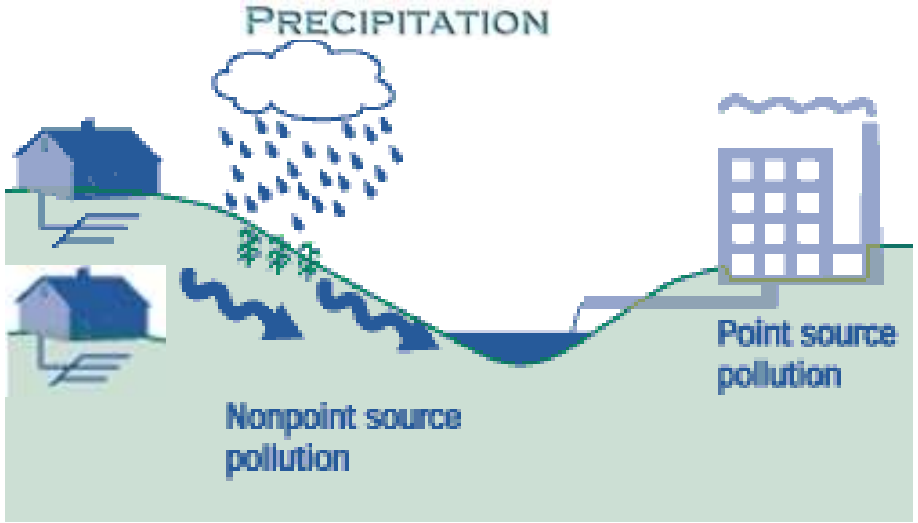
TODAY'S ACADEMIC OBJECTIVE

Today you will DESIGN a method to EDUCATE others about the ECOLOGICAL ISSUES in BIOMES!

FRIDAY, JUNE 7th

DO NOW

Know:



Asked: Which term **best** describes pollution that can be traced to a specific area?

A: Point Source Pollution **B:** Precipitation

C: Nonpoint Source Pollution

TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
   - Today's **QP** = SKETCH a possible effect of TOXIC POLLUTION on HUMAN HEALTH and then redefine ONE TERM from EACH of the following pages; 207, 222, 232, & 245!
2. Open books, WORK on today's **AO!**
3. ***HW** = FINISH Biome Games!

TODAY'S ACADEMIC OBJECTIVE

Today you will DESIGN a method to EDUCATE others about the ECOLOGICAL ISSUES in BIOMES!

The SGS - Study Guide Slide – Ecology Final

- **Students must KNOW:**

1. What is Ecology? What are the "levels of Ecological Organization" ordered from smallest to largest?
2. What is a Limiting Factor? What is Carrying Capacity? What are examples of Biotic and Abiotic Factors that could lead to Competition and/or reduced Population Growth?
3. What is a Producer, Consumer, Decomposer, Herbivore, Carnivore, and Omnivore?
4. What are examples of the four main Species Interactions (Cooperation, Competition, Predation, & Symbiosis) and the three types of Symbiosis (Mutualism, Commensalism, & Parasitism) and how are they different?

- **Students must be able to DO:**

1. Contrast a Habitat & Niche and the difference in reading a Food Chain & Food Web.
2. Identify and Graph Eco Graphs with 2 Y-Axes such as "Predator VS Prey".
3. Compare and Contrast "K" and "R" Species.
4. Describe the climate, location, **issues**, and other characteristics of the Major Land and Water Biomes.

The SGS - Study Guide Slide – Ecology Final

- **Students must KNOW:**

1. The study of Organisms and their Interactions with the Environment. Individual Organism/Species, Population, Community, Ecosystem, Biome, and Biosphere.
2. Factors that limit the growth of a Population (Less Births/Immigration or more Deaths/Emigration). The maximum number of individuals of a given Species that an area can support. See Pg. 6-7 & Pg. 34-38.
3. See Pg. 20-21.
4. See Pg. 38-39 and Pg. 44-50.

- **Students must be able to DO:**

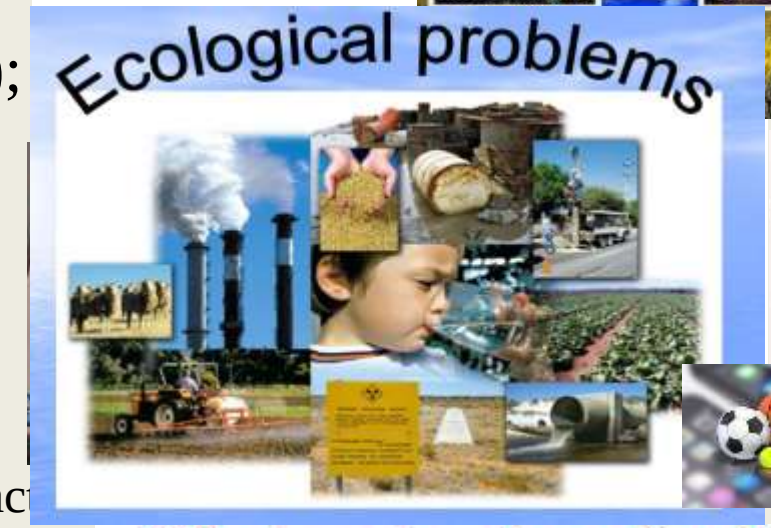
1. Habitat = an Organism's Home, Niche = an Organism's Role/Job aka how they SURVIVE in their Ecosystem. Both Food Chains and Food Webs show the TRANSFER of energy in an Ecosystem via feeding relations, and both USUALLY start with the Sun. Food Chains only show one path while Food Webs are more complex and show many paths/relationships.
2. See QP 5-13, 5-14, 5-15, 5-16, and 6-5.
3. "K" Species (Ex: Chimps) are larger, have fewer offspring, and live longer. "R" Species (Ex: Snails) are smaller, have many offspring, but live shorter lives.
4. See Pg. 62-85 + the Tech Chex HW.

Yesterday's Homework Review

- ***HW** = WORK on BIOME GAMES!!!
  - Let's make some HALL OF FAME GAMES!

Quick Lab Steps – BioM Board Games

1. Using the Biome you researched in our TECH CHEX from yesterday, your job is to DESIGN a GAME (it need not be a Board Game!) that conveys information about your BIOME when PLAYED!
2. Your Game MUST somehow incorporate **5** of the **7** following factors (**the last two are MANDATORY!**);
    1. The GEOLOGIC Features in your BIOME!
    2. A MAP showing where your Biome is LOCATED!
    3. Some DATA about the Abiotic Factors (Temperature, Light, Rainfall, and OTHER conditions) within the BIOME!
    4. The ORGANISMS found in your Biome!
    5. How HUMANS survived there/how HUMAN ACTIVITIY impact the BIOME!
    6. **A "Punny" name!**
    7. **One significant Ecological DANGER/PROBLEM/ISSUE found within your BIOME!**
3. Finally, answer any HW Problems/Questions!



Quick Lab Steps – BioM Board Games

1. Using the Biome you researched in our TECH CHEX from yesterday, your job is to DESIGN a GAME (it need not be a Board Game!) that conveys information about your BIOME when PLAYED!

2. Your Game MUST somehow incorporate **5** of the **7** following factors **(the last two are MANDATORY!)**:

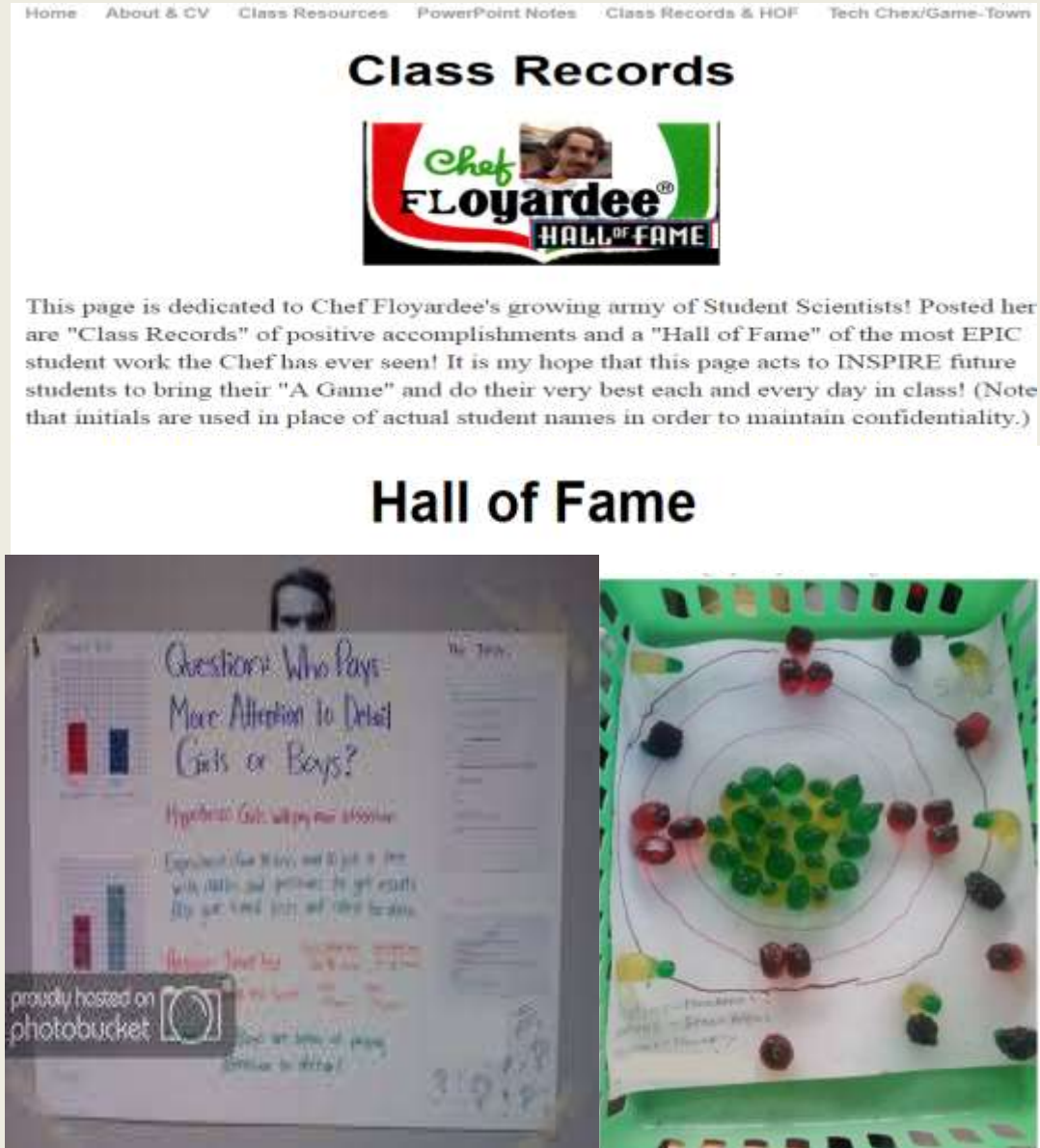
You MUST make a REAL-LIFE representation/MODEL of your GAME with RULES explaining how it works!

1. The GEO
2. A MAP sh
3. Some DA Rainfall, and OTHER conditions) within the BIOME!
4. The ORGANISMS found in your Biom
5. How HUMANS survived there/how HU ac the BIOME!
6. **A "Punny" name!**
7. **One significant Ecological DANGER nd within your BIOME!**

3. Finally, answer any HW Problems/Questions!

Class Records and HOF – Mr. Floyd's Website

- In order to further cultivate student motivation, positivity, and our class culture the Chef made a page DEDICATED to his Student Scientists Accomplishments!
- Here I will list "Class Records" and a "Hall of Fame" of the most EPIC projects and student work I have ever seen!
- If you believe that your work is "worthy of the hall" PLEASE let me know and we can showcase it on our website!
- **Link: https://cheffloyardee.github.io/Class%20Records%20&%20HOF**



Quick Lab Steps – BioM Board Games

1. Using the Biome you researched in our TECH CHEX

2.

Possible DANGERS/PROBLEMS/ISSUES your Biome could face:

- ***Resource Abuse***
- ***Eutrophication***
- ***Lack of Biodiversity***
- ***Overpopulation***
- ***Ozone Layer Hole leading to too much UV Radiation***
- ***Greenhouse Gas Effect***
- ***Water Pollution***
- ***Thermal Pollution***
- ***Land Degradation***
- ***Over-Farming***
- ***Nuclear Waste***
- ***Electronic Device Waste***
- ***Landfills***
- ***Endangered Species***
- ***Wasting Water/Food***
- ***Sewage***
- ***Mercury in Water***
- ***Overfishing/ Overhunting***
- ***Urbanization***
- ***Air Pollution***
- ***Acid Rain***
- ***Acid Mine Runoff/Strip Mining***
- ***Forest Fires***
- ***Diesases***
- ***Plastic Pollution***
- ***Invasive Species***
- ***Glacial Ice Melt***
- ***Oil Spills/Oil Dumping***
- ***Chemical Pollution***
- ***Lead Pollution***
- ***Biological Pollution***
- ***Nanoparticle Pollution***
- ***Vehicle Exhaust***
- ***Deforestation***
- ***Desertification***

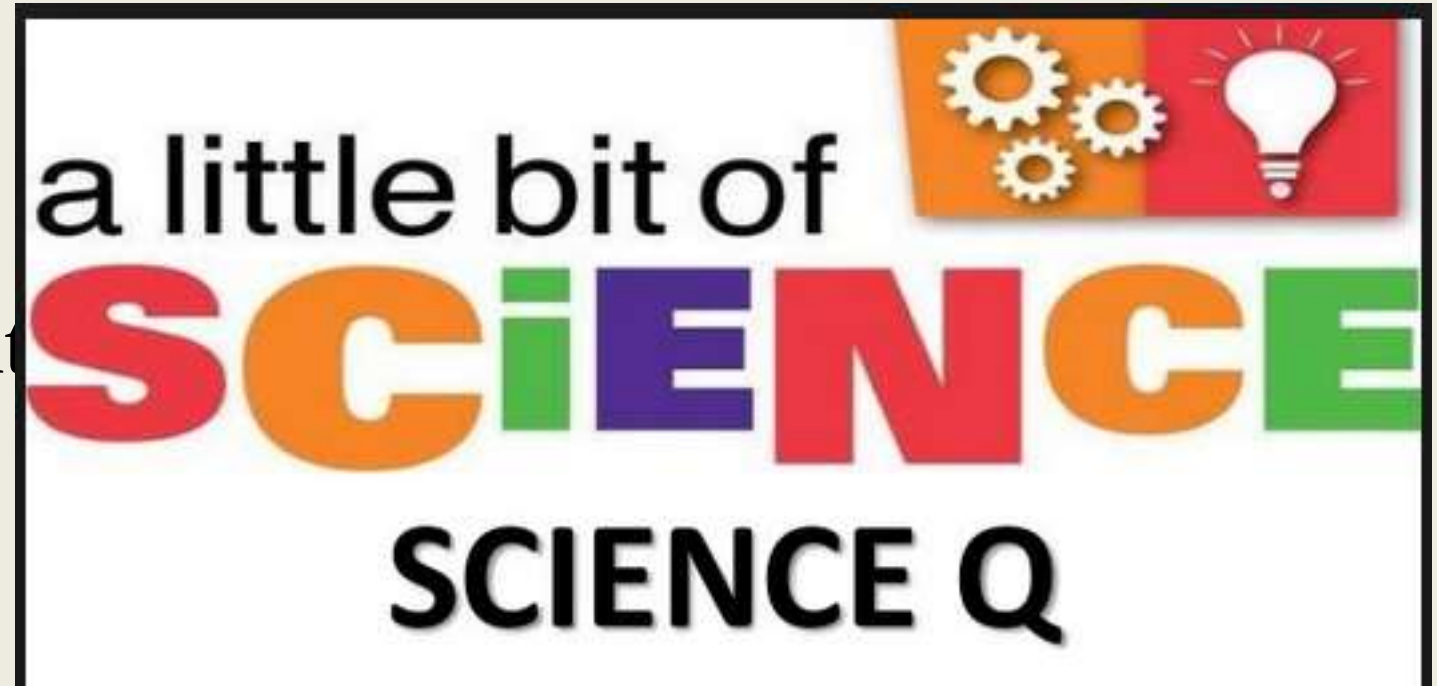
3.

Quick Lab– Future Notice!

1. <u>NOTE! Upon finishing your Quick Lab GAME, you will have the OPTIONAL OPTION to earn a little **BLUE** if you either PRESENT your chosen BIOME or INCLUDE relevant “BIOME Materials” inside!</u>

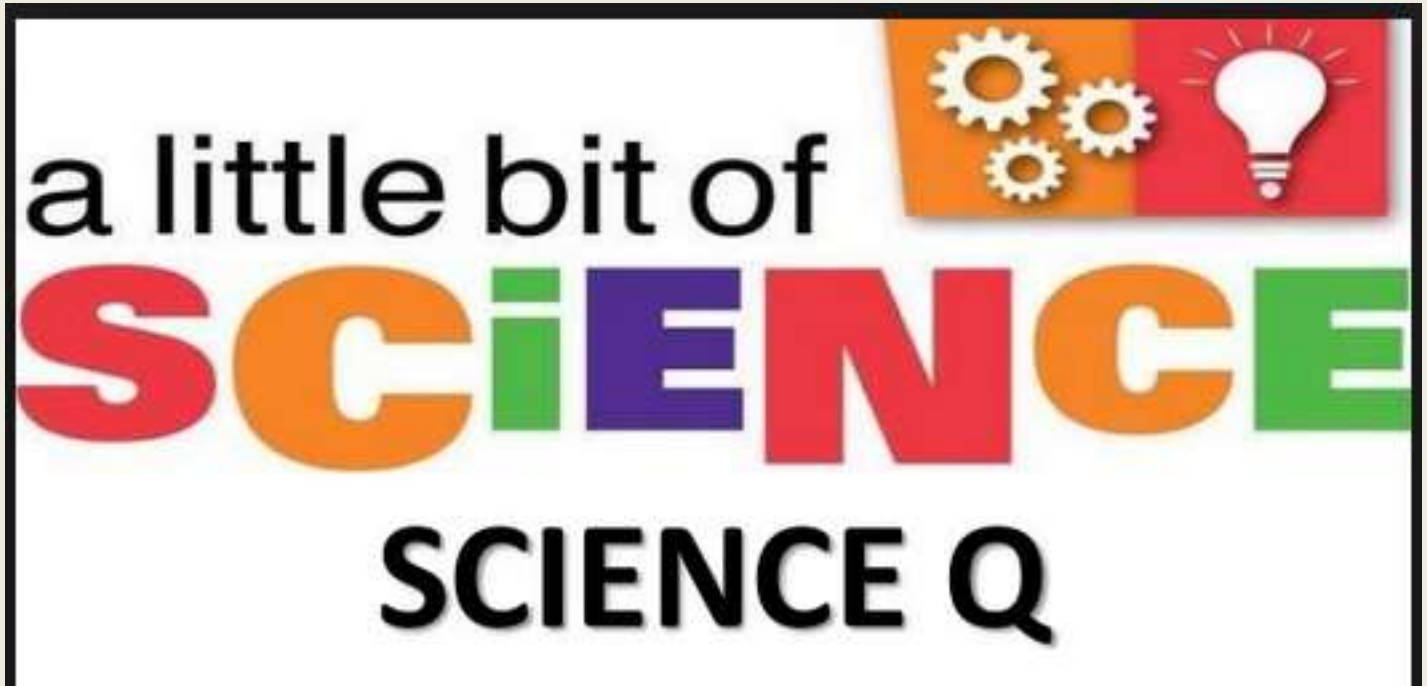
Bell 2 Bell

- We work what in this class?!?!?!
  - **BELL 2 BELL**
- Every single precious SECOND of academic instructional time is thus utilized in this classroom!
- You students will thus be vocally quizzed EVERY DAY until I DISMISS you at the end of class (with a positive greeting and a thank-you of course!).



Bell 2 Bell

- We work **BELL 2 BELL** in Mr. Floyd's class!
- I will thus quiz you about the science we learned today until the very end!
- Let us begin!



Tomorrow's Academic Objective and Plan

- Tomorrow you will SHARE your method to EDUCATE others about the ECOLOGICAL ISSUES in BIOMES!
- *HW = FINISH on Biome Games!