

# TUESDAY, MAY 28<sup>th</sup>

## DO NOW

There are just over 1000 Watts in 1 kiloWatt and Intensity equals Power divided by Area. These are equations of the Sun!

**Know:**  $1000W = 1kW$

$$Intensity = \frac{Power}{Area}$$

**Asked:** What would be the Power in kiloWatts released by the Sun on an Area of  $10m^2$  with an Intensity of  $5000\frac{W}{m^2}$ ?

## TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
  - Today's **QP** = QP BOOK REVIEW = Using Pg. 48 of your book, LIST three possible CAUSES and EFFECTS of COMPETITION and then SKETCH the "Smiley Face" Diagram on Pg. 50!
2. Open books, **WORK** on today's **AO!**
3. \***HW** = Read & Do Pg. 62-65!

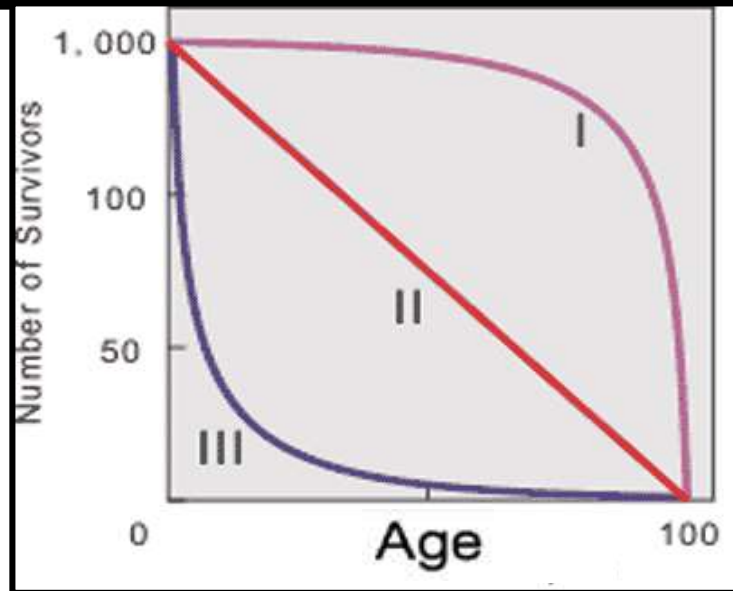
## TODAY'S ACADEMIC OBJECTIVE

Today you will **OBSERVE** the many **INTERACTIONS** between and within **SPECIES!**

# WEDNESDAY, MAY 29<sup>th</sup>

## DO NOW

Know:



**Asked:** Which line **most likely** shows a “Survivorship Curve” for humans?

**A:** III      **B:** II      **C:** I      **D:** V

## TODAY’S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
  - Today’s **QP** = QP BOOK REVIEW = REDEFINE the terms “Ecosystem” and “Biome” and then use Pg. 64-65 of your book to LIST 3 factors that can make one Biome DIFFERENT from another!
2. Open books, **WORK** on today’s **AO!**
3. \***HW** = Read & Do Pg. 66-73!

## TODAY’S ACADEMIC OBJECTIVE

Today you will **RESEARCH** the Biotic and Abiotic **FACTORS** unique to each **BIOME!**

# THURSDAY, MAY 30<sup>th</sup>

## DO NOW

There are 1000 grams in 1 kilogram and Density equals Mass divided by Volume. These are equations of Population Density!

**Know:**  $1000g = 1kg$

$$D = \frac{m}{V}$$

**Asked:** What would be the Mass in kilograms of a Yak with a Density of  $50 \frac{g}{m^3}$  and Volume of 3000 cubic meters ( $m^3$ )?

## TODAY'S PLAN

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
  - Today's **QP** = QP BOOK REVIEW = Using Pg. 67-71 LIST the SIX Major Land BIOMES and then SKETCH a PICTURE of each (you must include at least ONE Animal and PLANT in each!)
2. Open books, **WORK** on today's **AO**!
3. \***HW** = Read & Do Pg. 66-73 + Finish Tech Chex HW!

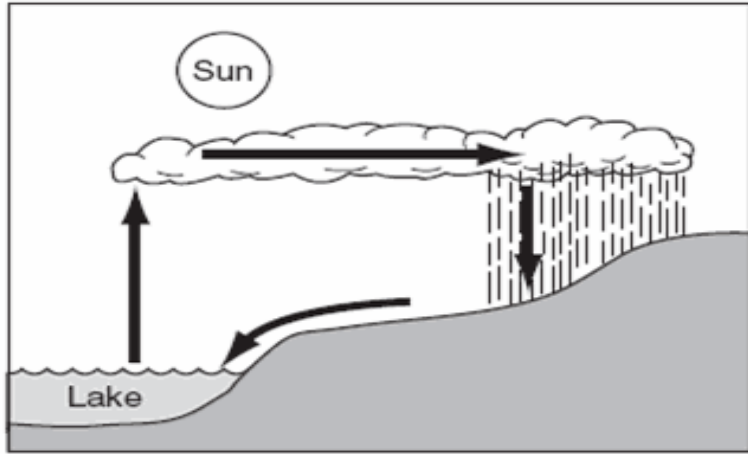
## TODAY'S ACADEMIC OBJECTIVE

Today you will **RESEARCH** the Biotic and Abiotic **FACTORS** unique to each **BIOME**!

**FRIDAY, MAY 31<sup>st</sup>**

**DO NOW**

**Know:**



**Asked:** Which process does this graphic **most likely** show?

- A:** The Sun Cycle      **D:** The Bicycle  
**B:** The Water Cycle  
**C:** The Rain Cycle

**TODAY'S PLAN**

1. Do and review the **DO NOW** and **Qualitative Prompt (QP)**!
  - Today's **QP** = DESCRIBE whether or not you'd rather be STRANDED on top of a MOUNTAIN or on a BOAT in Water and then CONTRAST 3 of the following; Rivers, Streams, Lakes, Ponds, Puddles, Bogs, Bays, Swamps, Marshes, Reefs, Seas, or Oceans!
2. Open books, **WORK** on today's **AO!**
3. \***HW** = Pg. 74-79 + Tech Chex HW!

**TODAY'S ACADEMIC OBJECTIVE**

Today you will **RESEARCH** the Biotic and Abiotic **FACTORS** unique to each **BIOME!**

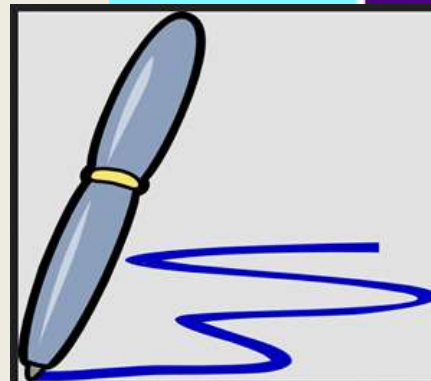
# Blue Mark Opportunity – End of Year EC

- STUDENTS, listen UP!
- SOME **BLUE** could be on the way to HELP your final quarter GRADES!
- To EARN some of this **BLUE** here is what ya gotta DO!




**SHADES OF BLUE**

Azure	Baby blue	Carolina Blue	Cornflower	Cyan
Indigo	Light blue	Midnight Blue	Navy	
Prussian blue	Powder blue	Prussian Blue	Royal blue	
Sky blue	Tiffany blue	True blue	Zaffre	



# Blue Mark Opportunity – End of Year EC

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- To EARN some of this **BLUE** here is what ya gotta DO!
  - Your MISSION is to head OUTSIDE and RECORD one of these SPECIES INTERACTIONS in REAL-TIME using your DEVICE!
  - DON'T FORGET that PLANTS interact with other Organisms as well though!



**HUNTING!**

The Most Interesting in the World

Lichens

What is **symbiosis**?

A relationship between two species.  
It may be **helpful** or **harmful**.

## Species Interactions

sapling learning Types of Interactions

• Predation	😊	☹️
• Commensalism	😊	😐
• Parasitism	😊	☹️
• Mutualism	😊	😊
• Competition	☹️	☹️
• Cooperation	😊	😊

# 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:

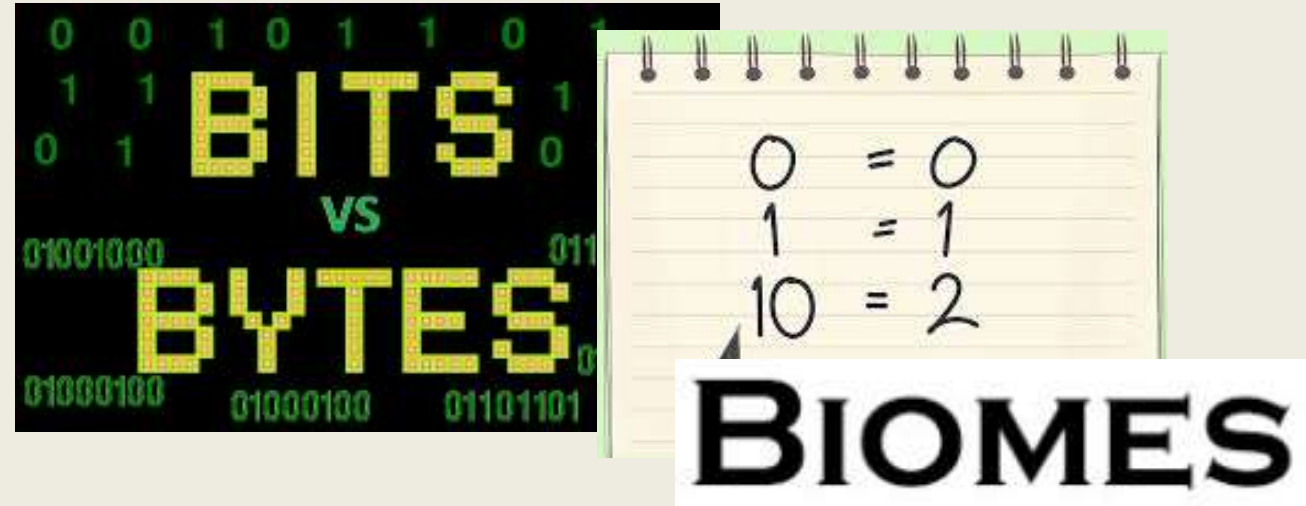
1. Habitat = an Organism's Home, Niche = an Organism's Role/Job aka how they SURVIVE in their Ecosystem. Both Food Chains and Food Webs show the TRANSFER of energy in an Ecosystem via feeding relations, and both USUALLY start with the Sun. Food Chains only show one path while Food Webs are more complex 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.





# Tech Chex – Bits & Bytes to Biomes

• Today's edition of Tech Chex is called "Bits & Bytes to Biomes" and in it we are going use our **Devices** to research more about the **PROPERTIES** of each Earthen **BIOME!**



## Terrestrial vs. Aquatic Biomes

- Terrestrial biomes are ones located on land
- In your group list the 6 terrestrial biomes you've learned about on the white board.



## Terrestrial vs. Aquatic Biomes

- Aquatic biomes are located in water
- What are the two main types of water on the earth?



# Tech Chex Steps – Bits & Bytes to Biomes

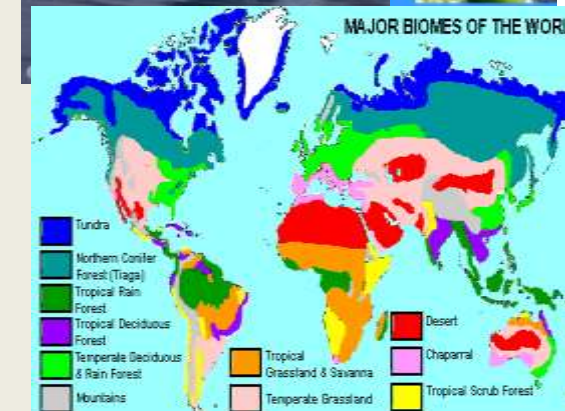
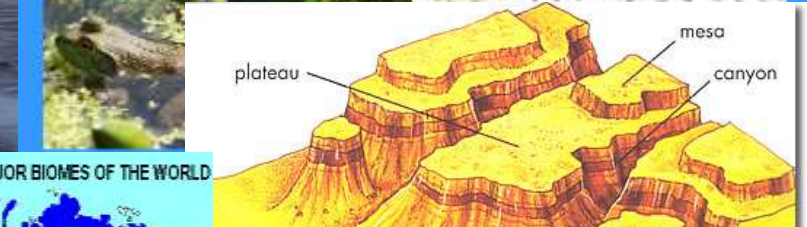
1. FIRST, take out your DEVICE, and head on over to the following website!

- <http://kids.nceas.ucsb.edu/biomes/>
- <https://onlinedegrees.kent.edu/geography/geographic-information-science/community/biomes-types-and-human-impact>
- If you do not have a DEVICE, don't worry! You can borrow one of these LAPTOPS!

2. Next, **SELECT** one **AQUATIC** and one **TERRESTRIAL** Biome, **LOOK UP** the **FOLLOWING** about it, and then **WRITE** what you find into your **SCIENCE NOTEBOOK!**

1. Organisms
2. Landforms
3. Map showing where Biome is found (**Sketch!**)
4. Abiotic Factor Data (Temperature, Sunlight, Rainfall, Humidity, etc.) (**Tabulate!**)
5. Dangers/Problems/Issues (**THIS IS THE MOST IMPORTANT THING YOU NEED!!!**)

3. Finally, **ANSWER** any HW Problems!



BIOME	MEAN TEMPERATURE	MEAN PRECIPITATION
Desert	-4 to 38 C	less than 25cm
Savanna/grassland	-16 to 34 C	50 - 130 cm
Taiga/conif. forest	-40 to 20 C	30 - 90 cm
Temperate Deciduous Forest	-30 to 30 C	75 - 150 cm
Tropical Rain Forest	20 to 25 C	200 - 1000cm
Tundra	-40 to 18 C	less than 25cm

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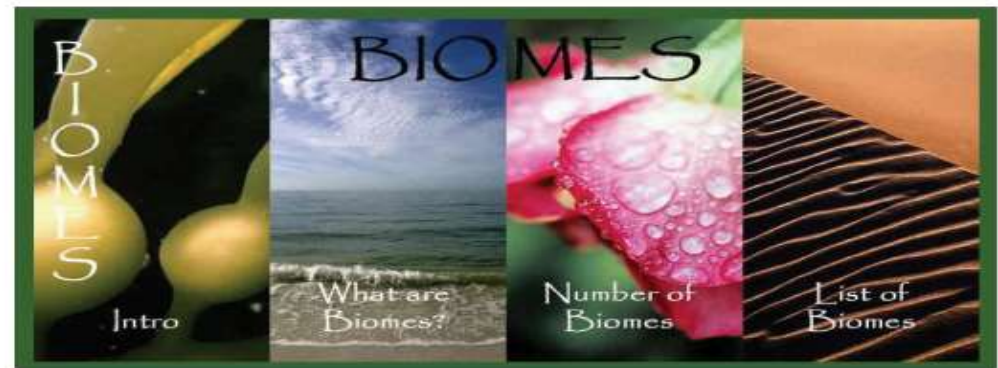


**Kids Do Ecology Home**

- Learn about Ecology
- Data and Science
- World Biomes
- Marine Mammals
- Classroom Projects
- EcoLinks
- For Teachers
- NCEAS
- Contact



**World Biomes**



Welcome to the Kids Do Ecology Biomes Pages!  
[Aquatic Biomes](#) | [Terrestrial Biomes](#) | [GAMES!](#)

**What are biomes?**  
Biomes are regions of the world with similar climate (weather, temperature) animals and plants. There are **terrestrial biomes** (land) and **aquatic biomes**, both freshwater and marine.

Would you like to know what the weather is like in different biomes around the world? How about the types of plants and animals that live in these biomes? Here you will find all sorts of information about the world's biomes.

**How many biomes are there?**  
There is really no completely right answer to this question. Some people say there are only 5 major types of biomes: aquatic, desert, forest, grassland, and tundra. Others split biomes further. Forests are separated into rainforest, temperate forest, chaparral, and taiga; grasslands are divided into savanna and temperate grasslands; and the aquatic biome is split into freshwater and marine.

AQUATIC BIOMES	TERRESTRIAL BIOMES:
<ul style="list-style-type: none"><li>• <b>Freshwater</b></li><li>• <b>Freshwater wetlands</b></li><li>• <b>Marine</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Tundra</b></li><li>• <b>Rainforest</b></li><li>• <b>Savanna</b></li></ul>

## Tech Chex Steps – Bits & Bytes to Biomes

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Geographic Information Science

Master's Certificate Courses Faculty Admissions Careers Online Experience Community

Community > Human Interference and Its Effect on Biomes

UNDERSTANDING THE DIFFERENT TYPES OF BIOMES 11 SEP

### HUMAN INTERFERENCE AND ITS EFFECT ON BIOMES

Although various fields of science may differ in how they use the word, a "biome" can generally be defined as a geographically large ecosystem with a shared physical climate. Earth's biomes can be classified broadly into two overarching categories, terrestrial and aquatic. These are further divided based on climate and on the dominant plants and animals that have evolved to thrive in their specific environmental conditions.

Biomes are not restricted to specific geographic regions, and they may not be exclusively inhabited by the same plant or animal species; thus, an individual biome type may appear on multiple continents and feature similar but not identical plants and animals.

GET A PROGRAM BROCHURE

Cyber Master's

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Email Address \*

Phone Number \*

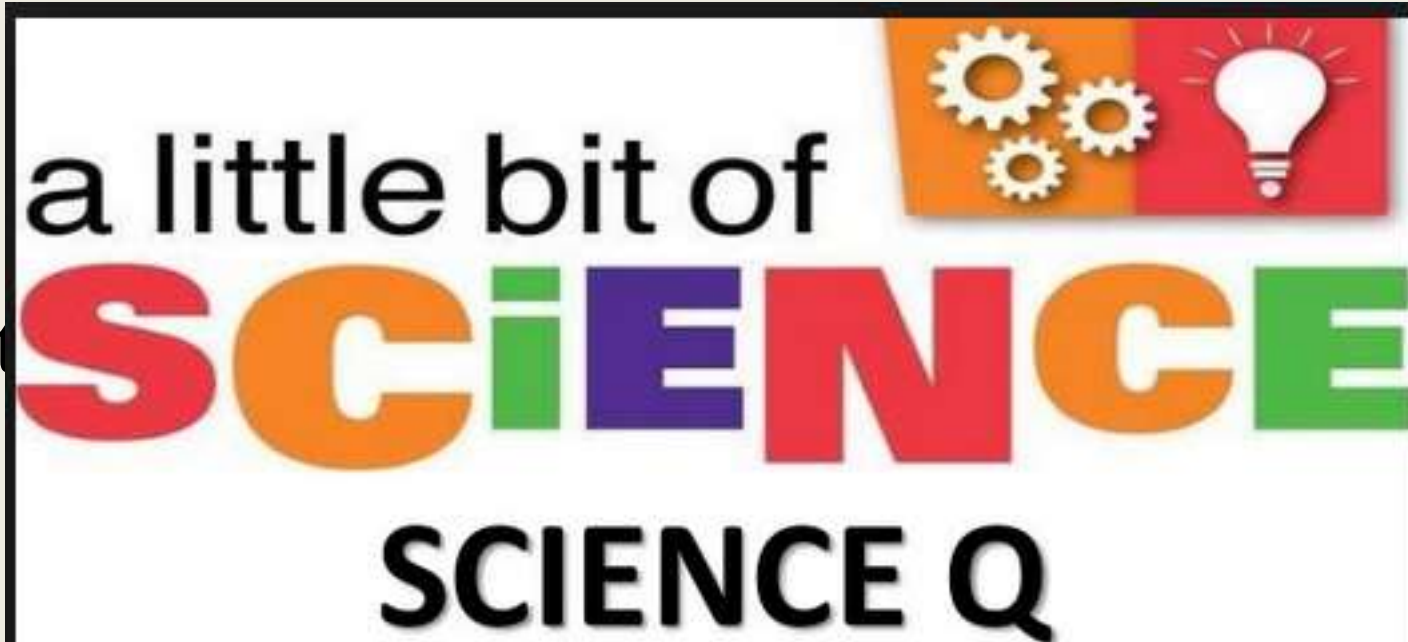
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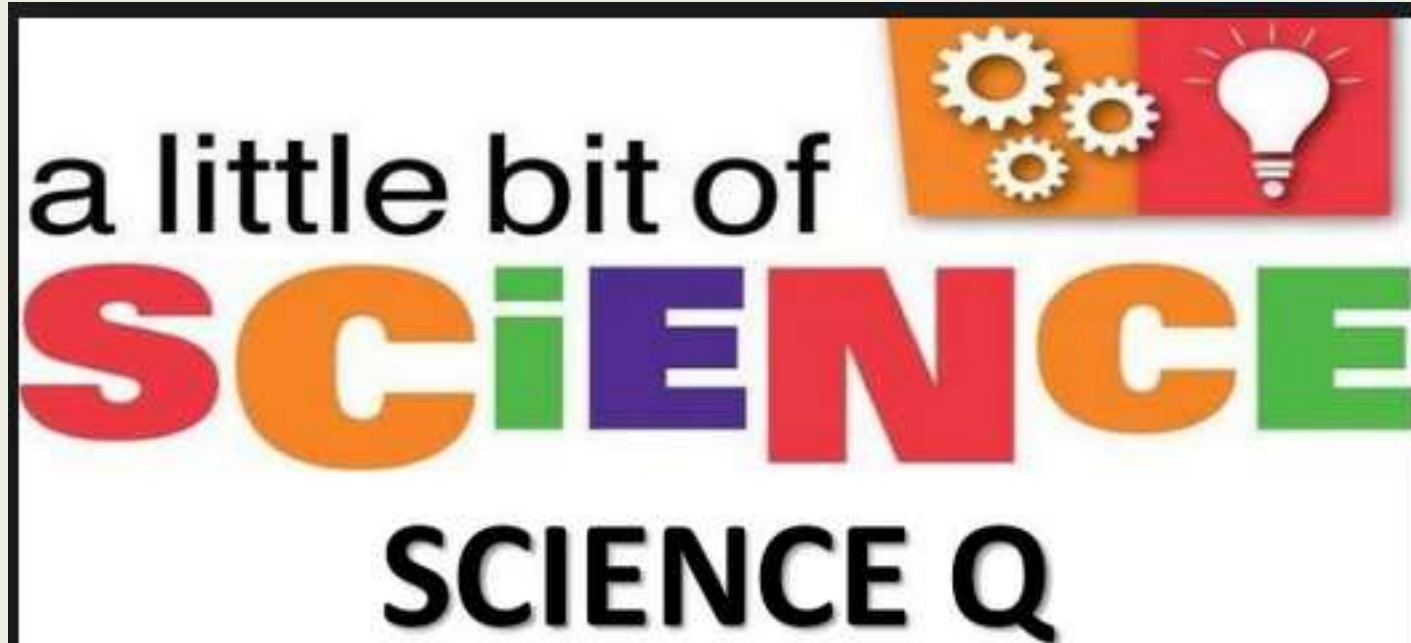
# Bell 2 Bell

- 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 RESEARCH the Biotic and Abiotic FACTORS unique to each BIOME!
- \*HW = Finish Tech Chex HW!



1. What is a biome?

- A large region characterized by a specific type of climate and certain types of plants and animal communities.

Biomes of North America

Tundra, Taiga, Grasslands, Desert, Tropical Rainforest, Temperate Rainforest, Temperate Deciduous Forest

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0 1 1 1 0 1 0 1  
0 1 0 0 1 0 0 0  
0 1 0 0 0 1 0 0  
0 1 1 0 1 1 0 1

**BITS**  
VS  
**BYTES**

0 = 0  
1 = 1  
10 = 2

**BIOMES**

Terrestrial vs. Aquatic Biomes

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Terrestrial vs. Aquatic Biomes

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0 1 1 0 1 1 0 1

# Tomorrow's Academic Objective and Plan

- Tomorrow you will RESEARCH the Biotic and Abiotic FACTORS unique to each BIOME!
- \*HW = Read & Complete Pg. 74-79!

## Aquatic Biomes

- There are 2 types of aquatic biomes:

### 1) Freshwater

(lakes, streams, rivers)



### 2) Marine

(oceans, coral reef, estuaries)



## 1. What is a biome?

- A large region characterized by a specific type of climate and certain types of plants and animal communities.



## Ecology and the Environment

