**BIOLOGY 2022-23 September 30, 2022**

**Today’s Agenda (Day 32)**

1. HOUSEKEEPING ITEMS

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1. Homework Check:

🡪 LAB: Design your own Biome [final]

🡪 Chapter 5 Vocabulary

🡪 LAB: Population Ecology

🡪 Chemistry Table

1. Class Activity:

🡪DAY 3: Chapter 5 PPT Review

1. **Section 5.2 – Threats to Biodiversity**
2. **Section 5.3 – Conserving Biodiversity**

HOMEWORK:

* READ: Chapter 5 – Biodiversity and Conservation
* COMPLETE: Ch 5 Reading Guide
* **STUDY**: Chapter 5 Test, Ch 5 & 6 Vocabulary Quiz

CHAPTER 5 – Biodiversity and Conservation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Background extinction | Biological augmentation | Biological magnification | Bioremediation | Ecosystem diversity | Edge effect |
| Endemic | Eutrophication | Extinction biodiversity | Genetic diversity | Habitat fragmentation | Introduced species |
| Mass extinction | Natural resource | Overexploitation | Renewable resource | Species diversity | Sustainable use |

CHAPTER 6 – Chemistry in Biology

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Acid | Activation energy | Active site | Amino acid | Atoms | Base |
| Buffer | Carbohydrate | Catalyst | Chemical reaction | Compound | Covalent bond |
| Electron  | Element | Enzyme | Hydrogen bond | Ion | Ionic bond |
| Isotope  | Lipid | Macromolecule | Mixture | Molecule | Neutron  |
| Nucleic acid | Nucleotide | Nucleus | pH | Polymer | Polar molecule |
| Product | Protein | Proton | Reactant | Solute | Solution |
| Solvent | Substrate | Van der Waals force |  |  |  |

ELEMENTS AND SYMBOLS

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hydrogen -  | Helium -  | Lithium -  | Beryllium -  | Boron - | Carbon - | Nitrogen - | Oxygen - | Fluorine - |
| Neon -  | Sodium -  | Magnesium - | Aluminum -  | Silicon - | Phosphorus- | Sulfur - | Chlorine - | Argon - |
| Potassium- | Calcium -  | Chromium -  | Manganese - | Iron - | Cobalt - | Nickel - | Copper - | Zinc - |
| Arsenic -  | Selenium -  | Bromine -  | Krypton -  | Palladium - | Silver - | Cadmium - | Tin - | Iodine - |
| Xenon -  | Cesium -  | Barium -  | Platinum -  | Gold - | Mercury - | Lead - | Radon - | Radium - |

POLYATOMIC IONS & COMMON ACIDS

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Acetate | Acetate | Ammonium | Bromate | Carbonate | Chlorate | Chlorite | Chromate | Cyanate |
| Cyanide | Dichromate | dihydrogen phosphate | hydrogen carbonate / bicarbonate | hydrogen phosphate | hydrogen sulfate / bisulfate | Hydroxide | Hypochlorite | Iodate |
| Nitrate | Nitrite | Oxalate | Perchlorate | Permanganate | Peroxide | Phosphate | Phosphite | Sulfate |
| Sulfite | Thiocyanate | Thiosulfate |  |  |  |  |  |  |
| Acetic | Bromic | Chloric | Chlorous | Hydrobromic | Hydrochloric | Nitric | Phosphoric | Sulfuric |

REMINDERS:

* ~~CHEMISTRY TABLE – Polyatomic Ions & Acids – Sept. 30~~
* **QUIZ: Chemicals and Symbols [elements, polyatomic ions, acids] 🡪 Oct. 11**
* Chapter 5 Reading Guide – Oct. 11
* **TEST: Ch 5 🡪 Oct. 13**
* **QUIZ: Ch 5 & 6 Vocabulary – Oct. 18**
* **TEST: Ch 6 🡪 Oct. 20**

**BIOLOGY 2022-23 CHEMISTRY REINFORCEMENT**

**Chemicals and Symbols**

INSTRUCTIONS: Please complete the table below with the appropriate chemical symbols (and ionic charge)for each common polyatomic ions and acids listed.

POLYATOMIC IONS & COMMON ACIDS

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Acetate | Acetate | Ammonium | Bromate | Carbonate | Chlorate | Chlorite | Chromate | Cyanate |
| Cyanide | Dichromate | dihydrogen phosphate | hydrogen carbonate / bicarbonate | hydrogen phosphate | hydrogen sulfate / bisulfate | Hydroxide | Hypochlorite | Iodate |
| Nitrate | Nitrite | Oxalate | Perchlorate | Permanganate | Peroxide | Phosphate | Phosphite | Sulfate |
| Sulfite | Thiocyanate | Thiosulfate |  |  |  |  |  |  |
| Acetic | Bromic | Chloric | Chlorous | Hydrobromic | Hydrochloric | Nitric | Phosphoric | Sulfuric |

**BIOLOGY 2022-23 READING GUIDE**

**Chapter 5 Biodiversity & Conservation**

Review pages 116 – 135 in the Glencoe Science *Biology*Textbookand answer the following questions.

1. How do extinctions affect biodiversity?
2. List and describe three types of **biodiversity**.
3. Give an example of the three types of biodiversity you listed in number 2.
4. Why does maintaining biodiversity have a direct economic value to humans?
5. Differentiate between the direct and indirect economic value of biodiversity.
6. What types of events can lead to **extinction**?
7. According to the table, which of these groups has suffered the largest percentage loss due to extinction?



1. According to the table above, which of these groups has suffered the smallest percentage loss due to extinction?
2. Why are **non-native species** introductions potentially so dangerous to island organisms?
3. How are today’s high rates of extinction different from past **mass extinction** events?
4. What normally happens after a mass extinction?  Why might this not happen after this mass extinction?
5. What is **overexploitation**?  How does it affect biodiversity?
6. How can disruption of a habitat be as harmful as destruction of a habitat?

1. Describe how **habitat fragmentation** can lead to edge effects (describe **edge effects** as part of your answer).
2. What causes **eutrophication**?  What are the problems associated with eutrophication?
3. Why are **introduced species** a threat to biodiversity in their new habitat, but not their original habitat?
4. What conclusion can be made based on this graph?



1. What is the difference between **renewable** and **nonrenewable resources**?  Give two examples of each.
2. Based on the graph below, how long does it take an area to recover from a landslide?

  

1. Based on the graph above, what has the greatest influence on disaster recovery time?
2. Choose a human-caused disaster from the graph above.  Discuss the methods that could be used to restore biodiversity.
3. Read the article on page 136 and what Wangari Maathai did in Kenya and how it has positively impacted her country.