**BIOLOGY 2022-23 April 17, 2023**

**Today’s Agenda (Day 145)**

1. HOUSEKEEPING ITEMS

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1. Homework Check:

🡪 ACTIVITY: Identify Bacteria

1. Class Activity:

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🡪BEGIN: Chapter 30 PPT Review

1. **Section 30.1 – Mammalian Characteristics**
2. Section 30.2 – Diversity of Mammals

HOMEWORK:

* READ: Chapter 30 - Mammals
* COMPLETE:
* **STUDY**: Chapter 30 - 31 Test

REMINDERS:

* **TEST: Ch 30 - 31 🡪April 20**
* **QUIZ: Ch 30 - 32 Vocabulary🡪 April 22**
* **TEST: Ch 32 🡪May 9**
* **TEST: Ch 33 🡪May 11**
* **QUIZ: Ch 33 & 34 Vocabulary🡪 May 18**
* **TEST: Ch 34 🡪May 25**
* **QUIZ: Ch 35 Vocabulary🡪 May 30**
* **TEST: Ch 35 🡪~~May 30~~ JUNE 1**
* **QUIZ: Ch 36 Vocabulary🡪 June 6**
* **TEST: Ch 36 🡪June 8**

Chapter 30 - Mammals

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| --- | --- | --- | --- | --- | --- |
| Cerebellum | Cerebral cortex | Diaphragm | Gestation | Gland | Mammary gland |
| Marsupial | Monotreme | Placenta | Placental mammal | Therapsid | uterus |

Chapter 31 – Animal Behavior

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| --- | --- | --- | --- | --- | --- |
| Agonistic behavior | Altruistic behavior | Behavior | Circadian rhythm | Classical conditioning | Cognitive behavior |
| Courting behavior | Dominance hierarchy | fixed action pattern | Foraging behavior | habituation | Imprinting |
| Innate behavior | Language | Learned behavior | Migratory behavior | Nurturing behavior | Operant conditioning |
| Territorial behavior |  |  |  |  |  |

Chapter 32 Integumentary, Skeletal and Muscular Systems

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| --- | --- | --- | --- | --- | --- |
| Actin | Appendicular skeleton | Axial skeleton | Cardiac muscle | Compact bone | Dermis |
| Epidermis | Hair follicle | Involuntary muscle | Keratin | Ligament | Melanin |
| Myofibril | Myosin | Ossification | Osteoblast | Osteoclast | Osteocyte |
| Red bone marrow | Sarcomere | Sebaceous gland | Skeletal muscle | Smooth muscle | Spongy bone |
| Tendon | Voluntary muscle | Yellow bone marrow |  |  |  |

**BIOLOGY 2022-23 READING GUIDE**

**Chapter 20 Reading Guide**

1. Describe characteristics shared by all fungi.  How many species of fungi are known today?
2. Compare and contrast multicellular fungi and unicellular fungi.
3. Describe two ways the physical structure of a fungi differs from that of a plant.
4. Compare and contrast the two types of hyphae shown below.

Diagram

Description automatically generated

1. Compare and contrast saprophytic fungi and mutualistic fungi.  Give one example of each type.
2. What is a fairy ring?  Why do fairy rings form?
3. List and describe three different methods fungi use to reproduce.
4. Describe three different adaptations fungi use for survival.
5. What is illustrated in the diagram below?

Diagram

Description automatically generated

1. Describe the life cycle of the common mold shown below.

Diagram

Description automatically generated

1. Describe the life cycle of sac fungi.
2. Describe the life cycle of club fungi.
3. What is mutualism?  Give an example.
4. What is a lichen?
5. How do lichens survive a severe drought?
6. What is a bioindicator?  Why are lichens considered to be bioindicators?
7. Describe two examples of beneficial fungi.
8. What role does fungi play in food production for humans?
9. What is bioremediation?  How are fungi useful in terms of bioremediation?
10. Describe two examples of harmful fungi.

**BIOLOGY 2022-23 READING GUIDE**

**CH 30 Mammals Reading Guide**

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| Review pages 880 – 897 in the Glencoe Science *Biology*Textbookand answer the following questions.   1. List and describe two characteristics that distinguish members of class Mammalia. 2. Describe six different functions of hair. 3. List five other characteristics shared by mammals (other than the ones from the first question). 4. Explain what is depicted below.   A picture containing text  Description automatically generated   1. List, describe, AND give an example of four trophic categories that mammals fit into. 2. Describe digestion in ruminant herbivores. 3. Describe how mammalian teeth are indicative of their diet. 4. Explain the picture below.      1. Explain the image below.      1. Describe the functions of the cerebral cortex and the cerebellum. 2. Define the term gland AND give two different examples of unique mammalian glands.      1. Describe the role of the uterus and placenta in mammalian reproduction.      1. Compare the gestation period of a Virginian opossum and an African elephant.      1. Describe general characteristics shared by monotremes.      1. Describe general characteristics shared by marsupials.      1. Describe general characteristics shared by placental mammals.      1. Compare and contrast order Insectivora and order Chiroptera AND give an example of each.      1. What order do each of the following mammals belong to?   a.        Seals  b.      Humans  c.       Rabbits  d.      Sheep  e.       Elephants  f.       Rhinos  g.       Dolphins  h.      Manatees  i.        Bears  j.        Anteaters     1. Describe what is illustrated below.   Diagram  Description automatically generated with medium confidence   1. Describe what scientists think the first mammals were like. |

**BIOLOGY 2022-23 READING GUIDE**

**CH 31 Animal Behavior Reading Guide**

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| Review pages 908 – 923 in the Glencoe Science *Biology*Textbookand answer the following questions.   1. Define behavior (include the definition of stimulus in your answer). 2. What do most scientists agree upon as the cause of most behaviors? 3. Describe the two general questions asked when studying behavior. 4. Describe an example of how a behavior can be naturally selected (evolve). 5. What are innate behaviors?  Give an example. 6. What type of behavior is shown below?  Describe why the goose does this.   A picture containing bird  Description automatically generated  A picture containing bird, aquatic bird  Description automatically generated   1. What is the purpose of the mother bird’s behavior shown below?   A picture containing plant  Description automatically generated   1. How do learned behaviors differ from innate behaviors? 2. Explain habituation.  Give an example. 3. Compare and contrast classical conditioning and operant conditioning. 4. Explain the experiment shown below.   A picture containing dog, black, indoor, standing  Description automatically generated   1. Give an example of operant conditioning. 2. Explain imprinting and give an example. 3. What are cognitive behaviors?  Name two animals that exhibit cognitive behaviors. 4. List AND describe three types of competitive behaviors. 5. What are foraging behaviors?  Give an example. 6. How do migratory behaviors increase the likelihood of survival? 7. What are circadian rhythms?  Explain what influences these rhythms. 8. Explain the diagram below.   Chart  Description automatically generated   1. List and describe two types of communication behaviors used by animals. 2. What are courting behaviors?  Give an example. 3. What are nurturing behaviors?  Give an example. 4. What are altruistic behaviors?  Give an example. 5. Describe one theory that explains altruistic behavior. |
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**BIOLOGY 2022-23 READING GUIDE**

**CH 32 Integumentary, Skeletal, & Muscular System**

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| Review pages 936 – 951 in the Glencoe Science *Biology*Textbookand answer the following questions.     1. What four types of tissue make up the integumentary system? 2. List AND describe the two layers of skin shown in the picture below.   Diagram  Description automatically generated   1. Describe the structure of the epidermis. 2. Explain the role of keratin in the epidermis. 3. Describe the structure of the dermis. 4. Explain how hair grows. 5. Explain what happens in the picture below if oil, dirt, and/or bacteria become trapped in the follicles.   Diagram  Description automatically generated   1. List AND describe three functions of the integumentary system. 2. Describe how skin heals from cuts and scrapes. 3. Describe how skin cancer is caused. 4. Explain the difference between the axial skeleton and the appendicular skeleton. 5. Compare and contrast compact bone and spongy bone. 6. Compare and contrast red and yellow bone marrow. 7. Describe how bones are formed. 8. Describe how bones are remodeled. 9. Explain what is happening in the fractured bone below.      1. Explain the role of ligaments in our skeletal system. 2. List AND describe five functions of the skeletal system. 3. List AND describe the three types of muscle. 4. Explain the function of tendons in our muscular system. 5. What is the relationship between the following terms: myofibrils, myosin, actin, and sarcomere? 6. Explain what is illustrated below.   Diagram  Description automatically generated   1. Where does the energy for muscle contraction come from? 2. Compare and contrast slow-twitch and fast-twitch muscles. |