

AP Biology Supplemental – Homeostasis Review Video Review Sheet

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1. Define feedback loop:
2. Negative feedback (most common) loop when we dance...
3. Describe an example of negative feedback:
4. Positive feedback when we want to go in
5. Describe an example of positive feedback:
6. Response to External Stimuli: Behavioral
 - a. Behavioral response is when:
 - b. Describe an example:
7. Response to External Stimuli: Physiological
 - a. Describe a Physiological response:
 - b. Describe the Blood Glucose Example:
 - c. Describe the Thermoregulation Example:
 - d. Describe the Osmoregulation Example:
 - i. What were the two functions of the kidney
 - ii. Describe the example:

8. Differentiate between biotic and abiotic factors related to homeostasis:
- Example of responding biotic factors:
 - Example of responding to abiotic factors:
9. How does homeostasis reflect evolution?
- Describe an example relating to nitrogenous wastes:
 - Describe an example relating to acquiring oxygen:
10. Homeostatic Disruptions:
- Describe an invasive species example:
 - Describe a physiological example:
11. Homeostasis and plant and animal defenses:
- Plants have a _____ defense. No matter what the invader is...
 - Animals have:
 - Non-specific examples:
 - Specific response:
 - An antigen is an _____
 - We have an infinite number of _____
 - When infected, we sense the shape with T-helper cells, transmit the shape to the B-cells (antibodies and memory B cells), and we make killer _____ cells
12. Homeostasis and Development:
- Differentiation: when a cell becomes specific, it does that by _____ certain genes – they are methylated so they can't function.
How does that happen, using _____ specific proteins
 - Apoptosis: _____ of the cells is really important in development
 - Hox Genes: put body parts in the right _____. The Hox Genes found in fruit flies, mice and us – suggestion they are:

13. How do we sense our environment so we can maintain homeostasis? Timing and Control

a. Plants:

i. Phototropism is: when a plant grows _____ the light, because auxin is on the shady side, causing the cells on the dark side to grow towards the light. Day to day

ii. Photoperiodism is: plant is using phytochromes, how much _____ time important in flowering, knowing the season

b. Circadian Rhythms: _____ gland, secreting _____ so we can tell what time of the day it is

c. Quorum Sensing used by _____ for responding to each _____ and to their:

14. Behavior and Natural Selection:

a. Give an example in Photoperiodism:

b. Give an example in Courtship:

c. Give an example in Pollination: