

**Topic:** Homeostasis Worksheet

**Summary:** Students will answer questions on positive and negative feedback loops.

**Goals & Objectives:** Students will be able to differentiate between positive and negative feedback loops. Students will be able to describe how feedback mechanisms help to maintain homeostasis.

**Standards:** CA Biology 9c. *Students know* how feedback loops in the nervous and endocrine systems regulate conditions in the body. 9i. *Students know* how hormones (including digestive, reproductive, and osmoregulatory) provide internal feedback mechanisms for homeostasis at the cellular level and in whole organisms.

**Time Length:** 30 minutes

**Prerequisite Knowledge:** Students have been introduced to the concept of feedback mechanisms and homeostasis.

**Materials:**

- Photocopied handouts
- Biology textbook

**Accommodations:** Students with an IEP can take the handout home if they need extra time, work with a partner, and/or answer the odd questions.

**Evaluation:**

Questions 1-6 are worth 2 points each, for a total of 12 points. Question 7-12 are worth 1 point each, for a total of 6 points. The assignment is worth a total of 18 points.

## Homeostasis Worksheet

1. Define homeostasis in your own words. \_\_\_\_\_

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2. Explain, in your own words, about negative feedback mechanisms. \_\_\_\_\_

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3. Explain, in your own words, about negative feedback mechanisms. \_\_\_\_\_

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4. Would you use a positive or negative feedback mechanism for clotting blood when you get a cut on your skin or blood vessel? Describe why. \_\_\_\_\_

\_\_\_\_\_

5. Would you use a positive or negative feedback mechanism for regulating body temperature? Describe why. \_\_\_\_\_

6. Does a positive or negative feedback mechanism cause the body to have a fever?

Describe why. \_\_\_\_\_

\_\_\_\_\_

Identify questions 7-12 as an example of Positive or Negative feedback.

7. \_\_\_\_\_ feedback tries to maintain homeostasis.

8. \_\_\_\_\_ feedback continues to disrupt homeostasis.

9. \_\_\_\_\_ feedback inhibits hormones.

10. \_\_\_\_\_ feedback continues to strengthen the stimulus.

11. \_\_\_\_\_ feedback is used when the hormone oxytocin is released to intensify the contractions that take place during childbirth.

12. \_\_\_\_\_ feedback is used when the kidneys remove H<sup>+</sup> ion from the blood when the pH of the blood becomes too acidic.