Summary

The hypothalamus keeps your hormones in a state of balance, and when alcohol is introduced, those hormones become out of sync, producing a wide range of physical effects on the body. This lesson is intended to teach students about the endocrine system, the dangers of underage drinking, and the importance of protecting your body and setting personal health goals.

Objectives

- Identify the functions of the hypothalamus
- Conceptualize the relationship between the endocrine and nervous systems, as well as hormone production
- Recognize the effects of alcohol on hormones
- Demonstrate the ability to use goal-setting skills to enhance health

Vocabulary

- Endocrine system
- Pituitary
- Stimulate
- Gland
- Hormone
- Metabolism

What you’ll need

- Hypothalamus Comprehension Questions
- Hypothalamus Vocabulary Cards
- Protect Your Body Reading
- Goal Setting Worksheet
- Poster boards or construction paper
- Markers

Comprehension Questions

- What is the hypothalamus’ job?
- What increases when the hypothalamus is impaired by alcohol?
- What decreases?
1. Introduce the unit by playing the video, “How Alcohol Affects Your Hypothalamus”. Have the “class neurotransmitter” (one student chosen at random) pass out the comprehension questions to all students (neurons).
   - 2 minutes

2. When the video is over, have the students get into groups to discuss the questions.
   - 3 minutes

3. Ask the class what they learned about alcohol and the body from the video.
   - 2 minutes

4. Have students read the resource below in small groups. When everyone has finished, lead a discussion on the endocrine system and hormones.
   - 5 minutes

5. Pass out the “Protect Your Body” reading and have students read to themselves or out loud as a class taking turns reading after every sentence.
   - 5 minutes

6. Write the following 5 categories on the board and have student volunteers come up to the board and write how each part is impacted by alcohol, citing specifically from the text.
   - 8 minutes
   - Brain
   - Heart
   - Liver
   - Stomach
   - Immune System

7. Activity: Design Your Own Infographic
   - 8 minutes

8. Transition: discuss the importance of making healthy decisions for yourself and setting goals. Choose a goal-setting video to show to the class http://www.classroomchampions.org/lessons/3/Goal-Setting
   - 3 minutes

9. Activity: Goal Setting
   - 5 minutes

10. Have new “class neurotransmitter” pass out the vocabulary cards. For homework, ask the students to rewrite definitions for the vocabulary in their own words, and draw a picture to help them remember.

11. Pass out index cards and ask students to write down two things they learned and one thing they would like to learn more about.
ACTIVITY IDEAS

**Design Your Own Infographic** (8 minutes)

- In small groups, have the students use a poster board or paper to create an infographic describing how each body part is impacted by alcohol, citing specifically from the text and video. Students should get creative in the design of their posters and use colorful drawings that clearly demonstrate their understanding of how each body part is impacted by alcohol.
- Have the students write a paragraph on the back of their infographics explaining how they would persuade a peer not to drink underage.

**Goal Setting** (5 minutes)

Pass out the Goal Setting worksheet and have students work individually.

- What is your goal?
- Why do you want to achieve that?
- How much time do you have to reach your goal?
- What steps are you going to take to make sure you reach your goal?