

# F6: Sensation and Perception - Chapter 4

Content Area: **Social Studies**  
Course(s): **Psychology**  
Time Period: **Semester 1**  
Length: **2 weeks**  
Status: **Published**

## Standards

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SCI.9-12.B	Biopsychology
SCI.9-12.B.2	Sensation and Perception
SCI.9-12.B.2.1	The processes of sensation and perception
SCI.9-12.B.2.1.2	Explain the concepts of threshold and adaptation
SCI.9-12.B.2.2	The capabilities and limitations of sensory processes
SCI.9-12.B.2.2.1	List forms of physical energy for which humans and non-human animals do and do not have sensory receptors
SCI.9-12.B.2.2.3	Describe the auditory sensory system
SCI.9-12.B.2.3	Interaction of the person and the environment in determining perception
SCI.9-12.B.2.3.1	Explain Gestalt principles of perception
SCI.9-12.B.2.3.3	Describe the importance of perceptual constancies
SCI.9-12.B.2.3.5	Describe the nature of attention
SCI.9-12.B.2.3.6	Explain how experiences and expectations influence perception

## Enduring Understandings

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### **The students will understand that:**

- 1. The brain senses the world indirectly because the sense organs convert stimulation into the language of the nervous system: neural impulses.**
- 2. The senses all operate in much the same way, but each extracts different information and sends it to its own specialized processing region in the brain.**
- 3. Perception brings meaning to sensation.**
- 4. Perception produces an interpretation of the external world, not a perfect representation.**
- 5. Sensations are often flawed due to our subjective interpretation.**
- 6. Illusions succeed by taking advantage of the assortment of sensory short cuts our brains take in order to perceive our changing environments efficiently.**

## Essential Questions

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- 1. How can we trust our senses if our brain gets all of the sensory information**

**indirectly?**

- 2. How developed are humans senses when compared to other animals?**
- 3. When a person loses a sense, how do the other senses compensate?**
- 4. If a tree falls in the forest and no one is there to hear it, does it make a sound?**
- 5. How can our neural impulses be manipulated with in order to trigger a false sensation?**
- 6. Why is sensory stimuli like smell and taste interpreted so differently by different individuals?**
- 7. How is it possible to get used to or simply miss sensing something even though our sensory organs were stimulated?**
- 8. Would the ability to never feel the sensation of pain be more of a blessing or a curse?**
- 9. How is it possible for our brains to “mix up” our senses?**
- 10. Is perception universal?**
- 11. Can two people ever interpret a sensory stimulation the same exact way?**
- 12. How are the brains perceptual shortcuts a help and a hindrance?**
- 13. How are we influenced by subliminal messages?**

## **Knowledge and Skills**

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### **Learning Objectives (SWBAT)**

- Explain how each of the five senses receive and translate signals to the brain for processing?**
- Describe how does each of the senses affect behavior?**
- Analyze the limitations of each sense and how those limitations affect behavior?**
- Evaluate how sensation and perception differ?**
- Discuss how the brain processes sensory signals accurately? Inaccurately?**
- Determine the significance of signal detection theory in modern psychology.**

- Identify the major components of the visual system and the function of each.**
- Identify the major components of the auditory system and the function of each.**
- Identify the four basic tastes.**
- Discuss the differences among the senses of taste, smell, and flavor.**
- Identify the two body senses and contrast one with the other.**
- Identify the views of the Gestalt psychologists related to perceptual phenomena.**
- Understand how depth perception influences behavior.**

**Content:**

- 1. Thresholds and Signal Detection Theory**
- 2. Sensory Mechanisms**
- 3. Attention**
- 4. Perceptual Processes**

**Transfer Goals**

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**Students will be able to independently self-assess their own senses and understand the impact that perception has on how they interact with the environment.**

**Explain how individual differences (e.g., age, experience, cultural background, sensory disorders) can lead to variations in perception and adapt their interactions accordingly.**

**Resources**

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## **Textbook Reading:**

### **Primary Student Textbook: Myers Psychology for AP**

## **Course Resources:**

1. Benjamin, Ludy T. Jr., eds. *Favorite Activities for the Teaching of Psychology*. Washington, D.C.: American Psychological Association, 2008.
2. Bensley, D. Alan. *Critical Thinking in Psychology: A Unified Skills Approach*. Pacific Grove, Calif.: Brooks/Cole, 1998.
3. Hock, Roger R. *Forty Studies that Changed Psychology: Explorations into the History of Psychological Research*. 5th ed. Upper Saddle River, N.J.: Pearson/Prentice Hall, 2005.
4. Rolls, Geoff. *Classic Case Studies in Psychology*. London: Hodder Arnold, 2005.
5. Cog Labs
6. The Human Brain Book by Rita Carter
7. Optical Illusions: TED talk

Additional Resources from WH databases, and articles connected to the content, including primary readings, historiography, and secondary sources.

## **Links**

<http://psychcentral.com/>

<http://www.psychologytoday.com/>

<http://www.apa.org/>

<http://www.scientificamerican.com/section/lateststories/>

<http://www.psychologicalscience.org/>

<http://www.sciencedaily.com/news>

<http://www.alleydog.com/>

<http://www.apa.org/research/action/glossary.aspx>

<http://allpsych.com/psychology101/index.html>

<http://www.simplypsychology.org/perspective.html>

## **Assessments**

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<https://docs.google.com/document/d/1mKgdwpriGuRcVHIVCJUdBek7lih12Q0ckKSTC4TMUXs/edit>

## **Modifications**

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<https://docs.google.com/document/d/1ODqaPP69YkcFiyG72fIT8XsUle3K1VSG7nxuc4CpCec/edit?tab=t.0>