

# Unit 05: Sensation and Perception

Content Area: **Social Studies**  
Course(s):  
Time Period: **Semester**  
Length: **1.5 weeks**  
Status: **Published**

## General Overview, Course Description or Course Philosophy

### OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

#### **Objective:**

Students will understand the human body is a complex, highly-integrated system that is developed from biological factors and experience.

#### **Essential Question:**

How does the interaction between our different biological processes influence our thought and behavior?

### CONTENT AREA STANDARDS

|                  |  |
|------------------|--|
| SCI.9-12.B.2.1   | The processes of sensation and perception  |
| SCI.9-12.B.2.1.1 | Discuss processes of sensation and perception and how they interact  |
| 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.2.2.2 | Describe the visual sensory system   |
| SCI.9-12.B.2.2.3 | Describe the auditory sensory system   |
| SCI.9-12.B.2.2.4 | Describe other sensory systems, such as olfaction, gustation, and somesthesia (e.g., skin senses, kinesthesia, and vestibular sense) |
| 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.2.3.2 | Describe binocular and monocular depth cues  |
| SCI.9-12.B.2.3.3 | Describe the importance of perceptual constancies  |
| SCI.9-12.B.2.3.4 | Describe perceptual illusions  |
| 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  |

## **RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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|-----------------|--|
| CS.K-12.2.b     | Create team norms, expectations, and equitable workloads to increase efficiency and effectiveness.   |
| LA.RST.11-12.2  | Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. |
| LA.WHST.11-12.9 | Draw evidence from informational texts to support analysis, reflection, and research.  |
| TECH.9.4.12.CI  | Creativity and Innovation  |
| TECH.K-12.P.1   | Act as a responsible and contributing community members and employee.  |

## **STUDENT LEARNING TARGETS**

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### **Declarative Knowledge**

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After concluding this unit, students understand:

1. The processes of sensation and perception
2. The capabilities and limitations of sensory processes
3. Interaction of the person and the environment in determining perception

### **Procedural Knowledge**

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Students will be able to:

- Identify, discuss, assess, and apply concepts related to sensation and perception such as:
  - The processes of sensation and perception and how they interact.
  - Concepts of threshold and adaptation.
  - Forms of physical energy for which humans and nonhuman animals do and do not have sensory receptors.
  - The visual sensory system.
  - The auditory sensory system.

- Other sensory systems, such as olfaction, gustation, and somesthesia (e.g., skin senses, kinesthesia, and vestibular sense).
- Gestalt principles of perception.
- Binocular and monocular depth cues.
- The importance of perceptual constancies.
- Perceptual illusions.
- The nature of attention.
- How experiences and expectations influence perception, and other important concepts.

## **EVIDENCE OF LEARNING**

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Alternative:

- Portfolios
- Verbal Assessment (instead of written)
- Multiple choice
- Modified Rubrics
- Performance Based Assessments

Benchmark:

Standards based through Pear Assessment

## **Formative Assessments**

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- Chapter 4 Study  
Guide [https://docs.google.com/document/d/1ZmaUrwxJd\\_ri7nEFe8rwhqMSmyIxxZ0Y81r5EpFY5M/copy](https://docs.google.com/document/d/1ZmaUrwxJd_ri7nEFe8rwhqMSmyIxxZ0Y81r5EpFY5M/copy)
- Questioning:
  - How does the interaction between our different biological processes influence our thought and behavior?
  - How are our perceptions influenced by environmental variables, motivation, past experiences, culture, and expectations?
- Research and determine the newest research in sensation and perception in the areas of Glial cells, blind-sight, and taste sensation.
- Gallery Walk- Students will walk around to see the images at different stations and make judgments

about what they are seeing. What evidence from recent studies suggests that subliminal advertising is a real phenomenon? Should we be concerned about subliminal adv? Cite evidence from the text

- Optional: Sensation and Perception Lab demonstration/simulation: Tasting the “sweet” water. Volunteers will be asked to drink the glasses of water and if they detect sugar, then they mark it on their sheet. Afterwards, the results will be compared, and a debriefing will take place

## **Summative Assessments**

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- Combined Biological Bases of the Brain and Sensation and Perception multiple choice/true false test.
- Presentations: Tommy’s Project- Sensation Tommy goes “Trick or Treating”. The class will rate the presentations and state what five or more categories the groups presented examples of at the conclusion of each presentation. Basic principles (thresholds), vision, hearing, taste, touch, smell, body position/movement, selective attention/perceptual illusions, perceptual organization, perceptual interpretation, is there ESP? other teacher approved topics.

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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Slides notes- [https://docs.google.com/presentation/d/1Bi0MPa3\\_qmIZWXft1Q8N-Lsd-kGEgHDVA4P2IEXF7rI/copy?usp=sharing](https://docs.google.com/presentation/d/1Bi0MPa3_qmIZWXft1Q8N-Lsd-kGEgHDVA4P2IEXF7rI/copy?usp=sharing)

Resources:

[The Chemical Mind - Crash Course Psychology #3](#)

[Meet Your Master: Getting to Know Your Brain - Crash Course Psychology #4](#)

[Sensation & Perception - Crash Course Psychology #5](#)

[Perceiving is Believing - Crash Course Psychology #7](#)

## **INTERDISCIPLINARY CONNECTIONS**

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VA.9-12.1.5.12prof.Cr1a

Use multiple approaches to begin creative endeavors.

SCI.HS.LS1.B

Growth and Development of Organisms

Developing and Using Models

Use a model based on evidence to illustrate the relationships between systems or between components of a system.

Modeling in 9–12 builds on K–8 experiences and progresses to using, synthesizing, and developing models to predict and show relationships among variables between systems and their components in the natural and designed worlds.

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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- Provide enrichment activities that include more advanced material
- Use of Higher Level Questioning Techniques
- Extended time to complete assignments
- Extended time on classroom tests and quizzes
- Restate, reread, and clarify directions/questions
- Establish procedures for accommodations /modifications for assessments
- Provide oral reminders and check student work during independent work time
- Extended time to complete assignments: Student requires more complex assignments to be broken up and explained in smaller units, with work to be submitted in phases
- Provide enrichment activities that include more advanced material
- Pair visual prompts with verbal presentations

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