

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)

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.
CS.K-12.2.b	Create team norms, expectations, and equitable workloads to increase efficiency and effectiveness.
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

Declarative Knowledge

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

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

Alternative:

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

Benchmark:

Standards based through Pear Assessment

Formative Assessments

- Chapter 4 Study
Guide https://docs.google.com/document/d/1ZmaUrwaxJd_ri7nEFe8rwhqMSmyIxxgZ0Y81r5EpFY5M/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

- 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)

Slides notes- 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

VA.9-12.1.5.12prof.Cr1a

Use multiple approaches to begin creative endeavors.

Developing and Using Models

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.

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

SCI.HS.LS1.B

Growth and Development of Organisms

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

- 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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