

AP Psychology – Unit 3 Assignment

Sensation and Perception

Big Question: How do we construct our representation of the external world?

Sensation and Perception Objectives:

- Contrast the processes of sensation and perception.
- Distinguish between absolute and difference thresholds and discuss research findings on subliminal stimulation.
- Describe the phenomenon of sensory adaptation and show how it focuses our attention on changing stimulation.
- Explain the visual process, including the stimulus input, the structure of the eye, and the transduction of light energy
- Discuss the value of parallel processing, especially regarding vision.
- Explain the trichromatic and opponent process theories of color vision.
- Explain the auditory process, including the stimulus input and the structure and function of the ear.
- Discuss the nature and causes of hearing loss and describe the effects of noise on hearing and behavior.
- Describe the sense of touch and explain the basis of pain.
- Describe the senses of taste, smell, kinesthesia, and equilibrium.
- Discuss the effects of sensory restriction.
- Describe the debate over the role of nature and nurture in perception and explain how illusions help us to understand perception.
- Discuss Gestalt psychology's contribution to our understanding of perception
- Discuss research on depth perception involving the use of the visual cliff.
- Describe the binocular and monocular cues in depth perception.
- Discuss the concept of the adaptability of perception.
- State the claims of ESP and explain why most research psychologists remain skeptical.
- Discuss the effect of assumptions, expectations, schemas, and contexts on our perception.

Sensation and Perception Overview

Sensation refers to the process by which we detect physical energy from the environment and encode it as neural signals. This chapter describes the senses of vision, hearing, taste, touch, smell, kinesthesia, and the vestibular sense. It also presents research findings from studies of sensory restriction and subliminal stimulation.

In this chapter there are many terms and several theories you must understand. Many of the terms are related to the structure of the eye, ear, and other sensory receptors. Labeling diagrams and rehearsing the material frequently will help you memorize these structures and their functions. The theories discussed include signal detection, Young-Helmholtz three-color and opponent-process theories of color vision, and the frequency and place theories of pitch. As you study these theories, concentrate on understanding the strengths and weaknesses (if any) of each.

The Perception unit explores how we select, organize, and interpret our sensations into meaningful perceptions. The chapter introduces a wide range of terminology, especially in the Perceptual Organization section. Each of the two sections that follow deals with an important issue. The first issue is the role of experience, as opposed to heredity, in perception. Make sure you understand the results of studies of recovery from blindness, early sensory restriction, adoption to distorted environments, and perceptual set. The second is the possible existence of ESP, or perception without sensation. You should be able to discuss both the claims made for ESP and the criticisms of these claims.

Unit 3 Reading Assignment(s)

You are responsible for the reading listed below; it is meant to supplement the material discussed in class and there may be a pop quiz at any point.

- **OpenStax Psychology Textbook:** Chapter 5 (Posted on Class Website)

Unit 3 Vocabulary Terms & Flip Book

Psychology is a term heavy course; you are responsible for the terms below. You will have a vocabulary quiz every other unit. For the quiz I will pull terms from the Unit vocabulary lists.

IMPORTANT: 10 points of your Unit Test grade are devoted only to Vocabulary!

Unit 3 Flip Book: Each term should be on its own card. Each card will have the term thoroughly and clearly defined on the back. Each card will be taped into a manila folder and turned in the day of the unit test.

1. Sensation
2. Perception
3. Bottom-Up Processing
4. Top-Down Processing
5. Selective Attention
6. Change Blindness
7. Psychophysics
8. Absolute Threshold
9. Signal Detection Theory
10. Subliminal
11. Priming
12. Difference Threshold
13. Weber's Law
14. Sensory Adaptation
15. Transduction
16. Wavelength
17. Intensity
18. Pupil
19. Iris
20. Lens
21. Retina
22. Rods
23. Cones
24. Optic Nerve
25. Blind Spot
26. Fovea
27. Parallel Processing
28. Young-Helmholtz/Trichromatic Theory
29. Opponent-Process Theory
30. Audition
31. Frequency
32. Pitch
33. Middle Ear
34. Cochlea
35. Inner Ear
36. Place Theory
37. Frequency Theory
38. Conduction Hearing Loss
39. Sensorineural/Nerve Hearing Loss
40. Kinesthesia
41. Vestibular Sense
42. Gate-Control Theory
43. Sensory Interaction
44. Depth Perception
45. Binocular Cues
46. Retinal Disparity
47. Monocular Cues
48. Perceptual Constancy
49. Color Constancy
50. Perceptual Adaptation
51. Perceptual Set
52. Extrasensory Perception (ESP)
53. Parapsychology

Part II – Unit One-Pager

One-Pager Directions:

- Use **UNLINED** White Paper.
- Use **Colored Pens, Pencils, or Markers**.
 - The more visually appealing it is the more you will learn and remember.
 - Why? - It will be stored by and in different parts of your brain by using different colors, physically writing on it, physically drawing picture, etc.
- **YOUR CONTENT MUST FILL THE ENTIRE PAGE.**
- Be purposeful about the arrangement of your content.
 - For example, have a reason for using a certain color or for placing an object in a certain place.
- Write **TWO** Quotations from the reading, activities, notes, or class lectures about this unit or part of the unit.
 - Quotations **MUST** be in complete sentences.
- Use **THREE** hand drawn visual images to create a central focus to your One-Pager.
 - These images should be in big, bold, and colorful!
 - **THREE** is the minimum required, you can always have more.
 - They should be related to the unit or part of unit, the more personal, funny, gross, etc. the better you will remember it.
- Place what you feel are the **FIVE Most Essential Vocabulary Words/Phrases/People** around each image.
 - **FIVE** is the minimum required, but you can always have more.
 - These words/phrases/people should express the main ideas, your impressions, feelings, or thoughts about what you have seen, read, or learned in the unit or part of the unit.
- Title the One-Pager as the **Main Idea** of the One-Pager making it the biggest and boldest words on the page.
 - It does not have to be one word, or the word that we use to describe it in class, it can be something unique that helps you remember this unit or part of the unit the best.
- Write **TWO** AP Questions on the front of your One-Pager (these are essentially short answer questions needing to be answered in multiple sentences)
- Answer **BOTH** of these questions on the back of the One-Pager using complete thoughts and sentences.
- **WRITE YOUR NAME ON THE BACK!**