

Unit Four

Sensation and Perception

Directions: As an introduction to the unit, this is a quote to give you the chance to think about the concepts we are about to discuss. Determine which letter from the choices above is the correct one and fits into the spaces below. When you are finished fill in the quote below.

A quote from Albert Einstein:

	E			E			T	I	O										
L	O			U	L	H	G	I	O	N			L	N	M	I	S	A	T
I	Y	N	S	A	P	E	U	M	E	L	E	C	A	D	S	I	T	T	S
M	O	F	R	O	F	I	R	H	B	R	U	N	O	I	M	I	R	A	B


who reveals Himself in the slight details we are able to perceive with our frail and feeble minds.

DISCOVERING PSYCHOLOGY

SENSATION AND PERCEPTION

Directions: This will be due at the end of this film. You are to answer the following questions. The concepts are presented chronologically during the film.

1. What is it about the "Ames Room" that causes Dr. Zimbardo to appear to grow as he walks from the left side of the room to the right?
2. Our sensory abilities are usually measured by the \_\_\_\_\_, or the weakest level that a stimulus can be accurately detected at least half of the time.
3. Sensory receptors are designed to detect certain types of \_\_\_\_\_.
4. An object in the environment that one attempts to focus on is called the \_\_\_\_\_.
5. The image, as it appears and is "sensed" on the retina is called the \_\_\_\_\_.
6. What did David Hubel's research focus on...no pun intended?
7. According to the film, how many nerve cell, or fibers exist in the retina?
8. According to the film, how many nerve cell, or fibers exist in the optic nerve?
9. Pavel Misha's research seems to suggest that the perceptual system of the brain searches for \_\_\_\_\_ in order to make sense of what it senses.
10. What does the brain of a football player need to do in order to adapt to new sensory information?
11. What is perceptual constancy?
12. How does context influence what a person sees?

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Directions: match each concept to the appropriate statement, and write the corresponding letter in the space provided. Be ready to justify your answers.

1. \_\_\_\_\_ carries impulses from the retina to the brain
2. \_\_\_\_\_ The \_\_\_\_\_ contains the light-sensitive receptor cells that allow us to see light and color.
3. \_\_\_\_\_ Proximity, \_\_\_\_\_, similarity, simplicity, and closure are the basic principles of perceptual organization.
4. \_\_\_\_\_ Loudness is measured in \_\_\_\_\_.
5. \_\_\_\_\_ The organization of sensory information into meaningful experiences is called \_\_\_\_\_.
6. \_\_\_\_\_ The \_\_\_\_\_ threshold is the minimum amount of difference a person can detect between two stimuli.
7. \_\_\_\_\_ People perceive objects as the same size, whether they are far or near. This is an example of perceptual \_\_\_\_\_.
8. \_\_\_\_\_ Studies show that \_\_\_\_\_ primary sensory experiences make up taste.
9. \_\_\_\_\_ perceptions that misrepresent physical stimuli
10. \_\_\_\_\_ The combination of the two images from our eyes into one is called \_\_\_\_\_.
11. \_\_\_\_\_ studies people's tendencies to make correct judgments in detecting the presence of stimuli
12. \_\_\_\_\_ studies the relationship between sensory experience and physical stimuli
13. \_\_\_\_\_ gaining information by means other than ordinary senses
14. \_\_\_\_\_ sense of movement and body position
15. \_\_\_\_\_ regulates the body's sense of balance
16. \_\_\_\_\_ differences between the images stimulating each eye
17. \_\_\_\_\_ According to the \_\_\_\_\_ theory of pain we can lessen some pains by shifting our attention away from the pain impulses.
18. \_\_\_\_\_ a procedure that considers only one part of the stimuli presented at a time
19. \_\_\_\_\_ smallest increase or decrease in the intensity of a stimulus a person can detect
20. \_\_\_\_\_ carries impulses from the inner ear to the brain

Concepts

- |                      |                   |                            |                 |
|----------------------|-------------------|----------------------------|-----------------|
| a. ATTENTIVE PROCESS | b. AUDITORY NERVE | c. BINOCULAR FUSION        | d. CONSTANCY    |
| e. CONTINUITY        | f. DECIBELS       | g. DIFFERENCE              | h. ESP          |
| i. FOUR              | j. J.N.D.         | k. KINESTHESIS             | l. OPTIC NERVE  |
| m. PERCEPTION        | n. PSYCHOPHYSICS  | o. SIGNAL-DETECTION THEORY | p. VESTIBULAR   |
| q. RETINA            | r. ILLUSION       | s. RETINAL DISPARITY       | t. GATE CONTROL |
| u. CONSTANCY         | v. OLFATORY NERVE | w. PREATTENTIVE PROCESS    | x. WEBER        |

Unit Four

Sensation and Perception

DIRECTIONS: Define or explain the significance of each of the following concepts. These concepts are directly taken from the Chapter Test.

ABSOLUTE THRESHOLD

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AFTERIMAGE

-----

AIR PRESSURE

-----

AUDITORY NERVE

-----

BALANCE

-----

BINOCULAR

-----

BINOCULAR CUE

-----

BINOCULAR FUSION

-----

CHEMICAL SENSE

-----

CLOSURE

-----

COCHLEA

-----

COLOR BLIND

-----

COLOR CIRCLE

-----

COLORS OF THE VISIBLE SPECTRUM

-----

CONES

-----

CONTINUITY

-----

DECIBEL

-----

DIFFERENCE THRESHOLD

-----

EARDRUM

-----

ELECTROMAGNETIC SPECTRUM

-----

GESTALT

-----

HEIGHT OR AMPLITUDE

-----

KINESTHESIS

-----

LENS

-----

MIDDLE EAR

---

MONOCULAR CUE

---

MOTION

---

OLFACTORY NERVE

---

PARALLAX

---

PHOTORECEPTOR

---

PROSTAGLANDINS

---

PROXIMITY

---

PUPIL

---

RETINA

---

RHINE, J.B.

---

RODS

---

RUBBING A SORE AREA

---

SENSE OF SMELL

---

SENSE OF TASTE CAN BE DISRUPTED BY

---

SENSORINEURAL DEAFNESS

---

SENSORY ADAPTATION

---

SHAPE CONSTANCY

---

SIGNAL-DETECTION THEORY

---

SKIN

---

SOUND

---

STROBOSCOPIC MOTION

---

THE WAY WE PERCEIVE OBJECTS

---

VESTIBULAR SENSE

---

VIBRATIONS

---

VISUAL ACUITY

---

Unit Four  
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A crossword puzzle grid with 38 numbered starting points for words. The grid is composed of white squares for letters and black squares for empty space. The numbers are as follows:

- 1: Down, top right
- 2: Across, top right
- 3: Down, upper middle
- 4: Across, upper right
- 5: Down, left side
- 6: Across, upper left
- 7: Across, upper right
- 8: Across, middle right
- 9: Down, middle
- 10: Across, middle
- 11: Across, middle left
- 12: Down, right side
- 13: Across, middle
- 14: Down, lower left
- 15: Down, lower middle
- 16: Down, lower middle
- 17: Across, lower left
- 18: Across, lower middle
- 19: Down, lower middle
- 20: Across, lower middle
- 21: Across, lower right
- 22: Across, lower middle
- 23: Down, lower right
- 24: Across, lower right
- 25: Across, lower right
- 26: Across, lower left
- 27: Across, lower middle
- 28: Across, lower right
- 29: Down, lower left
- 30: Across, lower right
- 31: Down, right side
- 32: Across, lower left
- 33: Across, lower right
- 34: Across, lower middle
- 35: Across, lower right
- 36: Across, lower middle
- 37: Across, bottom right
- 38: Across, bottom left

## Across

2. A person's interpretation of what an incoming sensory message means is \_\_\_\_\_.
4. The opening in the eye is \_\_\_\_\_.
6. Body senses alert us to our posture and \_\_\_\_\_.
7. The part of the eye that focuses an object on the back of the eye is the \_\_\_\_\_.
8. The receptors send information about the odors to the brain via the \_\_\_\_\_ nerve.
10. The process by which we become more sensitive to weak stimuli and less sensitive to unchanging stimuli is called sensory \_\_\_\_\_.
11. In \_\_\_\_\_ motion, the illusion of movement is produced by showing the rapid progression of images or objects that are not moving at all.
13. The difference between what the left and the right eye sees is called retinal \_\_\_\_\_.
15. A visual receptor most sensitive to violet-purple wavelengths is a \_\_\_\_\_.
17. Weber's \_\_\_\_\_ says that the stronger a stimulus is, the larger the amount of change will be needed to detect that change.
18. Signal \_\_\_\_\_ theory studies the influences that cause a person to be able to sense a stimulus in the environment.
20. Deafness may be inherited or caused by injury, old age, or \_\_\_\_\_.
21. In hearing, the smallest amount of a particular stimulus is called the \_\_\_\_\_ threshold.
22. Finger tips are more \_\_\_\_\_ populated with sensory receptors than the back of the leg.
24. The minimum amount of difference that can be detected between two stimuli is known as the \_\_\_\_\_ threshold.
26. Many things like cold, heat, pressure and punctures can cause \_\_\_\_\_.
27. The sense of body movement and position is called \_\_\_\_\_.
28. In the eye, point where the optic nerve leaves the eye and the eye registers nothing because that area lacks photoreceptors is called the blind \_\_\_\_\_.
32. The \_\_\_\_\_ is the part of the ear that is filled with fluid and small hairs that vibrate to incoming sound.
33. The combining of two images into one image is called binocular \_\_\_\_\_.
34. There are two kinds of deafness, sensorineural and \_\_\_\_\_.
35. In the ear, the \_\_\_\_\_ nerve transmits neural impulses to the brain.
36. The \_\_\_\_\_ theory suggest that only a certain amount of information can be processed by the nervous system at a time.
37. The perceptual tendency to group stimuli into continuous patterns is \_\_\_\_\_.
38. Taste is sensed through receptor neurons located on taste \_\_\_\_\_ on the tongue.

## Down

1. A perceptual cue in which we group like things together is \_\_\_\_\_.
3. The loss of hearing is called \_\_\_\_\_.
4. The study of the relationship of sensory apparatus and the process of sensation is called \_\_\_\_\_.
5. The process of receiving information from the environment is \_\_\_\_\_.
9. The process of filling in missing details of what is viewed is \_\_\_\_\_.
12. Neurons in the eye that are sensitive to light are called \_\_\_\_\_.
14. Light is described in \_\_\_\_\_.
16. The loudness of a sound is measured in \_\_\_\_\_.
19. The firing of the cones not used after viewing something steadily in order to bring the visual system back in balance is an \_\_\_\_\_.
23. The \_\_\_\_\_ sense tells you whether you are physically upright without having to use your eyes.
25. The back of the eye, which contains millions of receptors for light is then \_\_\_\_\_.
29. A visual receptor that responds during daylight is \_\_\_\_\_.
30. The sense of hearing is \_\_\_\_\_.
31. The perceptual tendency to group together visual and auditory events that are near each other is \_\_\_\_\_.
34. The semicircular \_\_\_\_\_ are used in vestibular sense.