

Unit 3: Sensation and Perception

Topic 3.1 Principles of Sensation

1. What is the difference between sensation and perception?

2. Complete the table below.

| Gestalt Principle | Description | Example |
|-------------------|-------------|---------|
| Figure & Ground | | |
| Continuation | | |
| Closure | | |
| Similarity | | |
| Proximity | | |
| Symmetry | | |

3. What is the difference between binocular cues and monocular cues?

4. Compare convergence and retinal disparity.

5. Complete the table below.

| Monocular Cues | Description | Example |
|-----------------|-------------|---------|
| Relative Size | | |
| Interposition | | |
| Relative height | | |

Topic 3.1 Principles of Sensation (Continued)

5. Complete the table below. (Continued)

| Monocular Cues | Description | Example |
|--------------------|-------------|---------|
| Shading & contour | | |
| Texture & gradient | | |
| Linear perspective | | |
| Motion parallax | | |

6. Define sensory transduction.

7. What is the absolute threshold?

8. Complete the table below.

| | Respond Yes | Responds No |
|----------------|-------------|-------------|
| Signal present | | |
| Signal absent | | |

9. Compare sensory adaptation and habituation.

10. Define the difference threshold.

11. Explain Weber-Fechner law.

Topic 3.2 Principles of Perception

1. What is perceptual constancy?

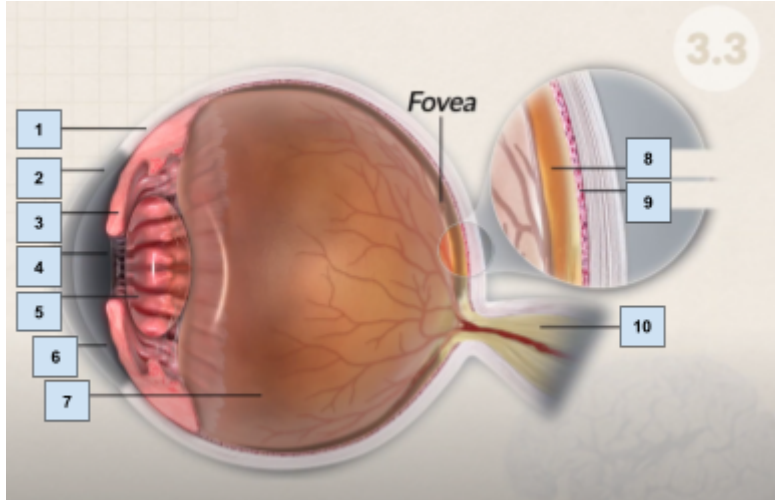
2. Complete the table below.

| Perceptual Constancy | Description |
|----------------------|-------------|
| Size constancy | |
| Color constancy | |
| Shape constancy | |
| Lightness constancy | |

Topic 3.2 Principles of Perception (Continued)

3. How does a perceptual set impact information we process?
4. Identify an example of how perceptual sets can influence an individual's perception.
5. Define schema.
6. Identify an example of a schema you have.
7. Identify two ways in which culture, experiences, or an individual's emotions impact an individual's perceptual process.
8. Describe the Muller-Lyer illusion.

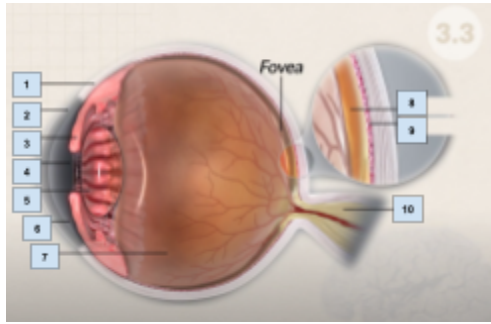
Topic 3.3 Visual Anatomy



1. Complete the table below using the diagram above.

| Part of the Eye | # | Description |
|-----------------|---|-------------|
| Sclera | | |
| Cornea | | |
| Aqueous Humor | | |
| Iris | | |
| Pupil | | |
| Lens | | |

Topic 3.3 Visual Anatomy (Continued)



1. Complete the table below using the diagram above (Continued)

| Part of the Eye | # | Description |
|-----------------|---|-------------|
| Vitreous Humor | | |
| Retina | | |
| Choroid | | |
| Optic Nerve | | |

2. Explain the difference between rods and cones.

3. Identify what is located in front of the rods and cones and describe their function.

4. Compare astigmatism and cataracts.

5. Explain the trichromatic theory and opponent-processing theory.

6. What colors have a shorter wavelength and which ones have a longer?

7. Complete the table below.

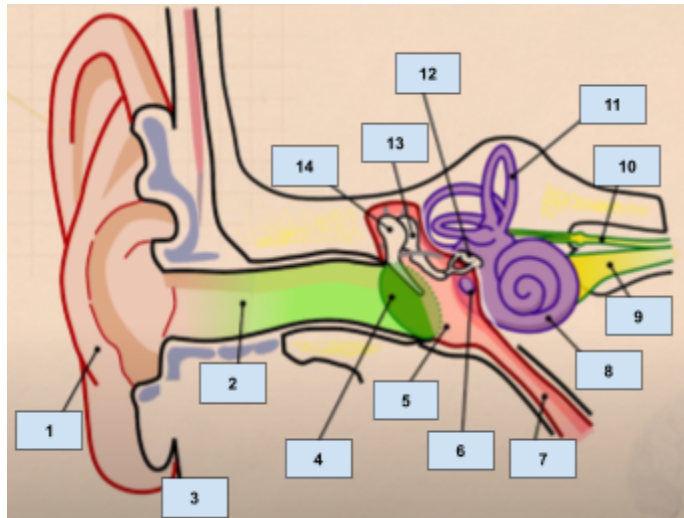
| Color blindness | Description |
|-----------------|-------------|
| Achromatism | |
| Dichromatism | |
| Trichromatism | |

8. Describe how synesthesia impacts a person.

Topic 3.4 Visual Perception

1. What is the difference between top-down and bottom-up processing?
2. How can perceptual sets influence top-down processing?
3. Identify an example of an individual using bottom-up processing.
4. Identify an example of an individual using top-down processing.
5. Explain how top-down processing and proofreaders illusion impact your ability to proofread a paper you wrote.

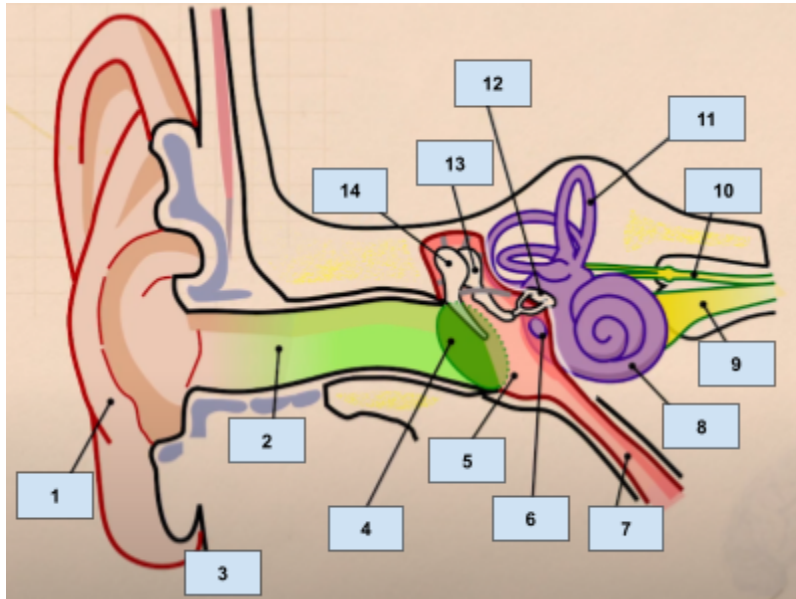
Topic 3.5 Auditory Sensation and Perception



1. Complete the table using the following diagram.

| Part of Ear | # | Description |
|----------------|---|-------------|
| Pinna | | |
| Auditory Canal | | |
| Eardrum | | |
| Malleus | | |
| Incus | | |
| Stapes | | |

Topic 3.5 Auditory Sensation and Perception (Continued)



1. Complete the table using the following diagram.

| Part of Ear | # | Description |
|---------------------|---|-------------|
| Oval Window | | |
| Cochlea | | |
| Organ of Corti | | |
| Semicircular Canals | | |

2. Explain what the stereocilia do.

3. Describe the difference between frequency and amplitude of a sound wave.

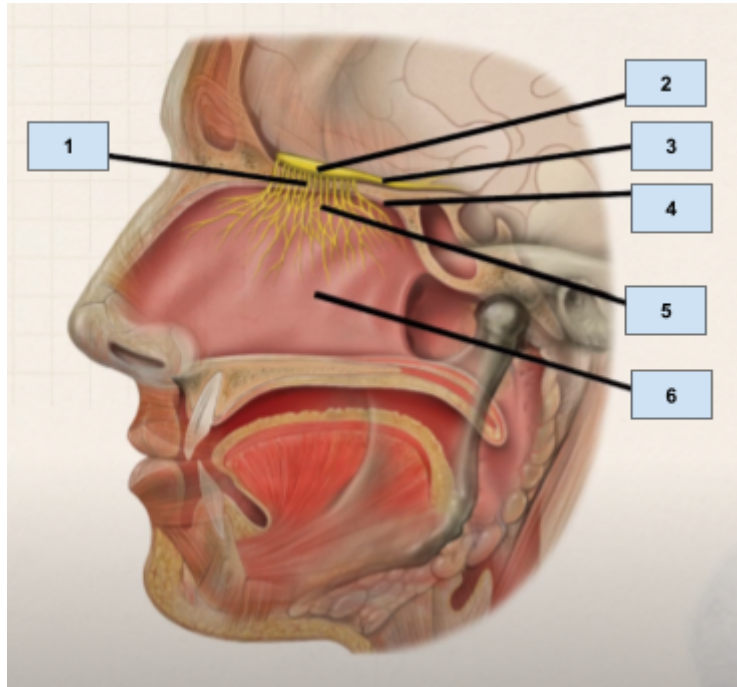
4. Describe place theory.

5. What is sensorineural hearing loss?

6. What is conductive hearing loss?

7. Describe the difference between a cochlear implant and a hearing aid.

Topic 3.6 Chemical Senses



1. Complete the table below.

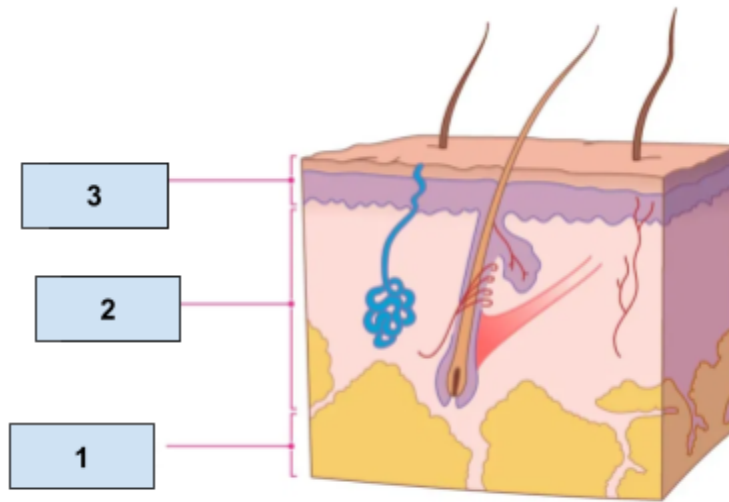
| Part of the Nose | # | Description |
|--------------------------|---|-------------|
| Olfactory epithelium | | |
| Olfactory receptor cells | | |
| Olfactory bulb | | |
| Olfactory nerve | | |

2. What does gustation mean?

3. What is the papillae?

4. Explain what happens when you eat food.

Topic 3.7 Body Senses



1. Complete the table below.

| Layer of Skin | # | Description |
|---------------|---|-------------|
| Epidermis | | |
| Dermis | | |
| Nociceptors | | |
| Hypodermis | | |

2. What is phantom limb sensation?

3. What is kinesthesia?

4. What are proprioceptors?

5. Describe what vestibular sense is.

6. Explain sensory interaction.