

Guided Reading Activity

8-1

Sensation

For use with textbook pages 207-213

Directions: Filling in the Blanks Use your textbook to fill in the blanks using the words in the box.

absolute	detection	receptors
adaptation	difference	senses
change	perception	stimulus
competing	reality	

Sepia - can't feel pain

What is Sensation?

Any aspect of or change in the environment to which an organism responds is called a

1 stimulus. A sensation occurs any time a stimulus activates one of your

2 receptors. A sensation may be combined with other sensations and your past experience

to yield a 3 perception.

hot/cold, pain, alarm, electric light

p. 210

Threshold

The weakest amount of a stimulus required to produce a sensation is the 4 absolute threshold. Humans use a limited sense of the physical world known as 5 reality.

sound, taste, pressure, scent, pain

compare to dogs, bats, hawks, bloodhounds

Sensory Differences and Ratios

A just noticeable 6 difference is the smallest increase or decrease in the intensity of a stimulus that a person can detect. According to Weber's law, the larger or stronger the stimulus, the larger the

7 change required for a person to notice it.

running at higher altitudes

Sensory Adaptation

8 Senses are most responsive to increases and decreases, to new events rather than ongoing, unchanging stimulation. Without sensory 9 adaptation, you would feel the constant pressure of the clothes on your body.

Ex. - dark rooms (vision gradually increases) - hot bath (get used to it)

Signal-Detection Theory

10 Detection thresholds involve recognizing some stimulus against a background of competing stimuli. Signal-detection theory is based on the notion that the stimulus must be detected in the presence of 11 competing stimuli.

Savants?

p. 213

* Preattentive - extracting info. simultaneously and automatically
Attentive - extracting only part of stimuli

Vision - optic nerve

Hearing - auditory nerve

Smell - olfactory nerve

Touch - pressure, warmth, cold, pain

7 Senses

- Visual
- Auditory
- Olfactory
- Tactile
- Taste
- Vestibular
- Kinesthetic