THE STANDARD

Stimuli & Sensory Receptors

Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

DCI
DISCIPLINARY CORE IDEA

LS1.D · Information Processing

> *Each sense receptor responds to different inputs (electromagnetic, mechanical, chemical), transmitting them as signals that travel along nerve cells to the brain. The signals are then processed in the brain, resulting in immediate behaviors or memories.*

Your senses are not generalists. Each receptor is built to respond to one kind of input. Eye receptors react to light. Ear receptors react to vibrations. Tongue and nose receptors react to specific chemicals. Skin receptors react to pressure, temperature, and damage. The receptor catches the signal. Nerves carry it to the brain. **The brain decides: act now, or store it as a memory.**

SEP
SCIENCE & ENGINEERING PRACTICE

Obtaining, Evaluating, and Communicating Information

> *Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence.*

Students are not designing an experiment here. They are gathering information from multiple sources, checking whether those sources hold up, and pulling the pieces into one clear story about how the body senses and responds. **The skill is sorting good evidence from sloppy claims, then communicating what they found.**

CCC
CROSSCUTTING CONCEPT

Cause and Effect

> *Cause and effect relationships may be used to predict phenomena in natural systems.*

This standard runs on cause and effect. A specific stimulus causes a specific receptor to fire. That signal causes a specific brain response. Change the stimulus, the response changes. Damage the receptor, the response stops. **Students trace those chains and use them to predict what will happen next.**