# Visual Perception

## Overview:

- Basic Processes in Perceptual Organization

- Perception of Location and Distance

- Perception of Motion

- Perceptual Constancy

# Basic Processes in Perceptual Organization

## How do we make sense of our world?

- Perceptual organization is the process by which order is imposed on the information received by our senses.

- Have you heard of <u>Gestalt principles</u> before? Here's where they come into play.

- According to Gestalt psychologists, we see figures via principles of grouping.

# Basic Processes in Perceptual Organization

The Gestalt principles include:

- Figure-ground
- Proximity
- Similarity

- Continuity
- Closure
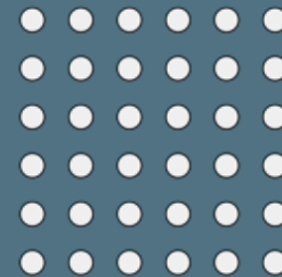- Common fate

- Symmetry
- Good gestalt



similarity

closure    proximity    continuation

figure and ground
(tree within the letter "A")
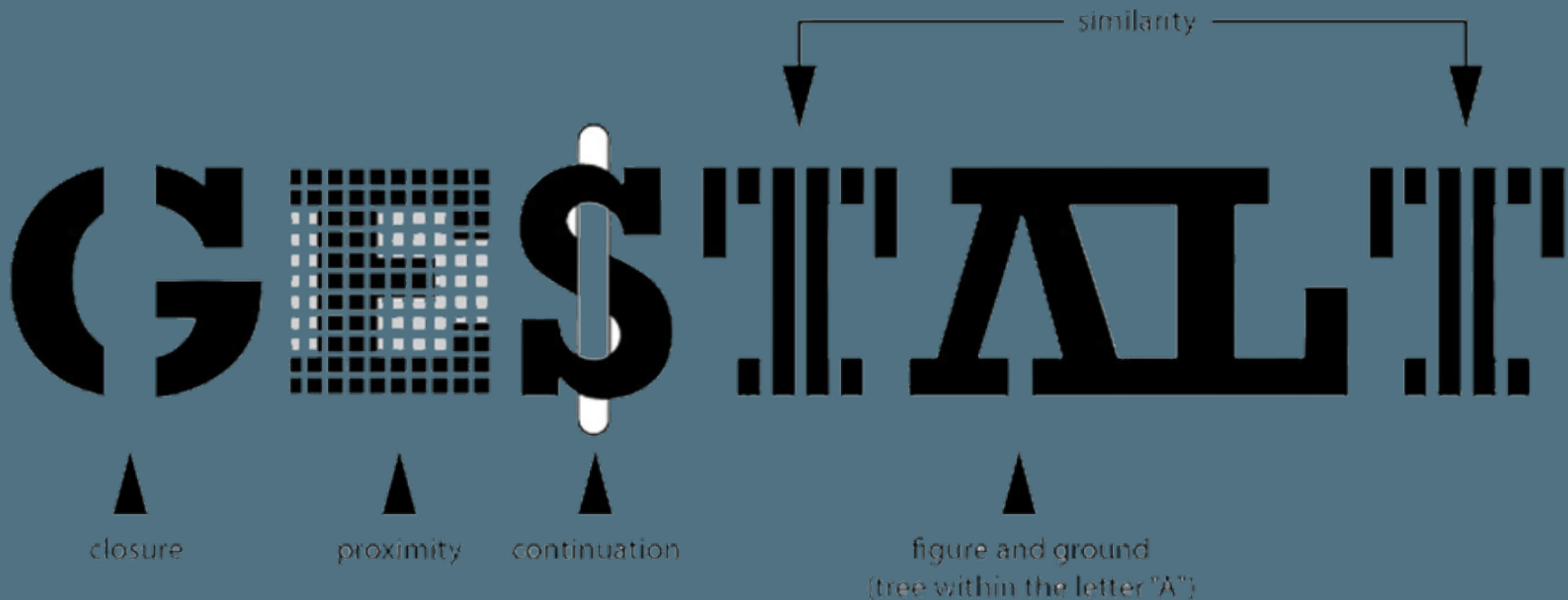
## Gestalt: Law of Proximity

Objects are grouped because they are close to one another.

*Possible UX Response*:

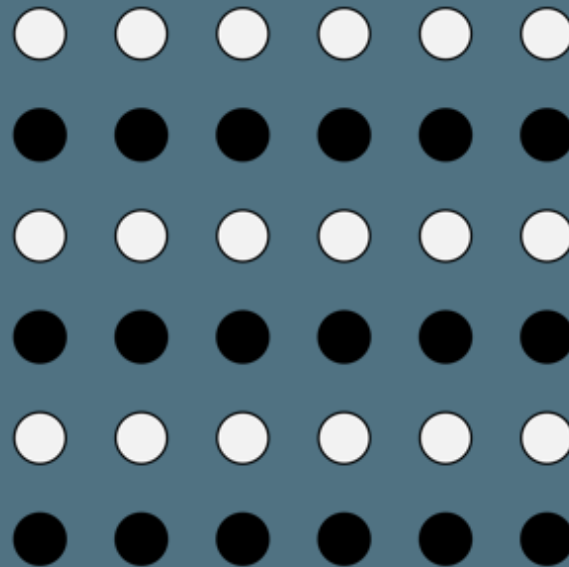Place associated items adjacent to each other.

# Gestalt: Law of Similarity

Objects are grouped because they are alike in color, shape, or texture.

*Possible UX Response*:

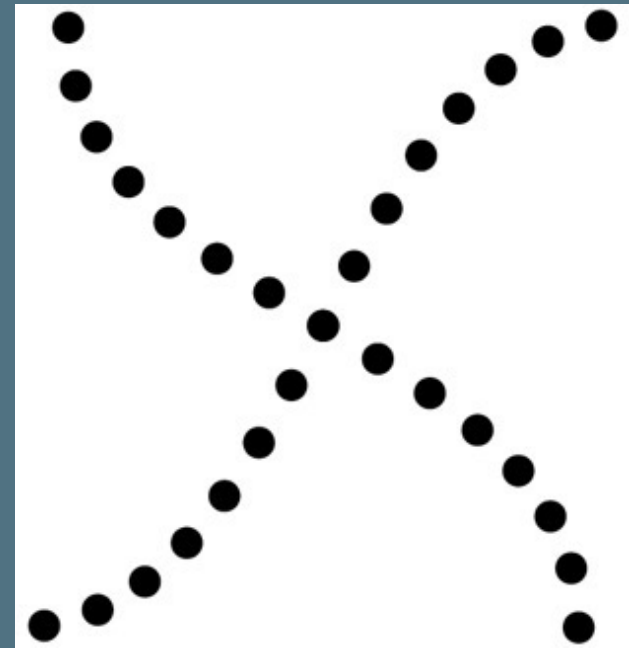Ensure associated items are from the same color family.

# Gestalt: Law of Continuity

When objects overlap and lines dramatically change direction, individuals perceive these objects to be distinct and interrupted.

*Possible UX Response*:

Ensure related website content flows together by reducing the amount of directional change.

# Gestalt: Law of Closure

Incomplete objects are
perceived as a whole image
rather than a collection of
lines and curves.

*Possible UX Response*:
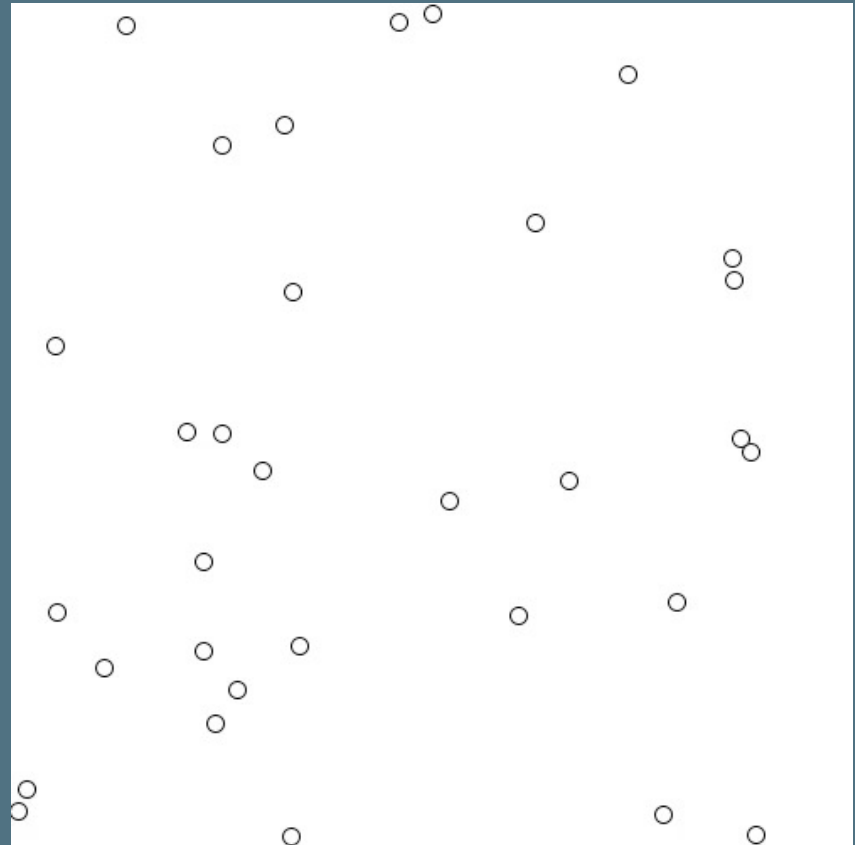
Use negative space for visual
interest.

# Gestalt: Law of Common Fate

Objects with the same direction, motion, or speed are perceived as a group.

*Possible UX Response:*

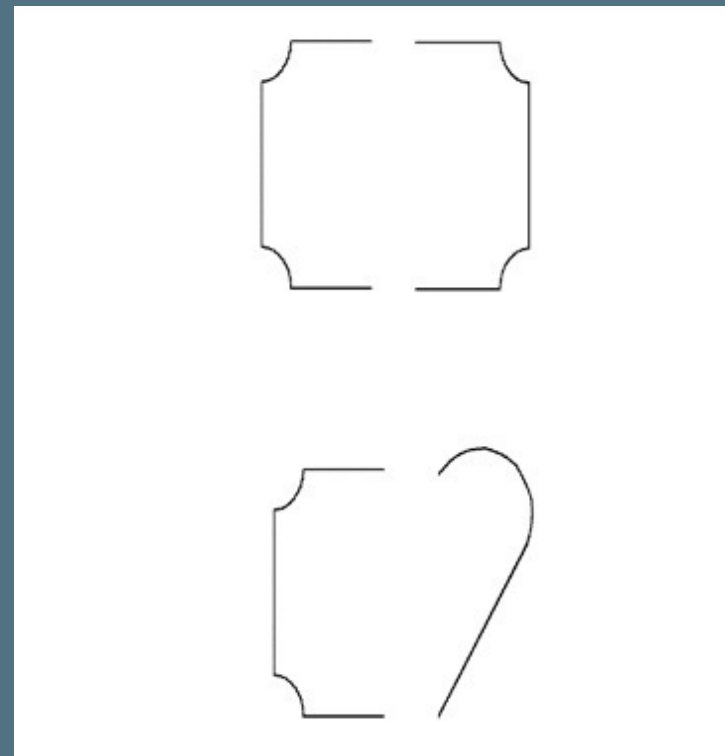Ensure nested menus open in the same direction.

# Gestalt: Law of Symmetry

Objects in symmetrical parts will be perceived as a single image. Asymmetrical objects will not.

*Possible UX Response*:

Group content symmetrically and use asymmetry to demonstrate a disruption in content.
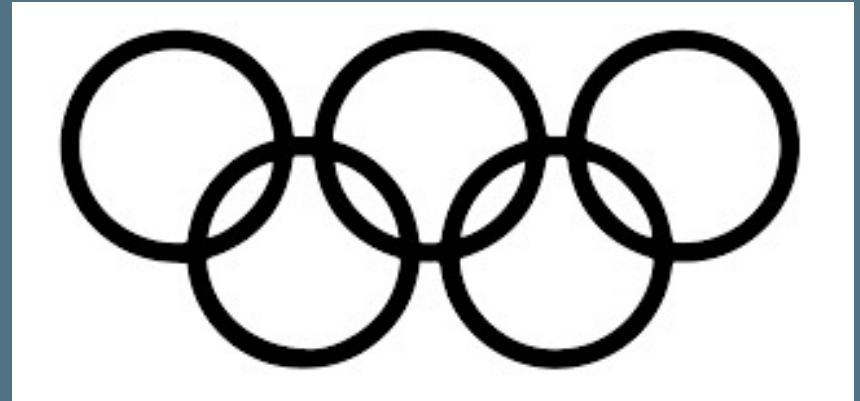
# Gestalt: Law of Good Gestalt

A complex group of objects is perceived as a single, simpler object.

*Possible UX Response*:

The wireframe for a website should be concise to avoid issues of clarity.
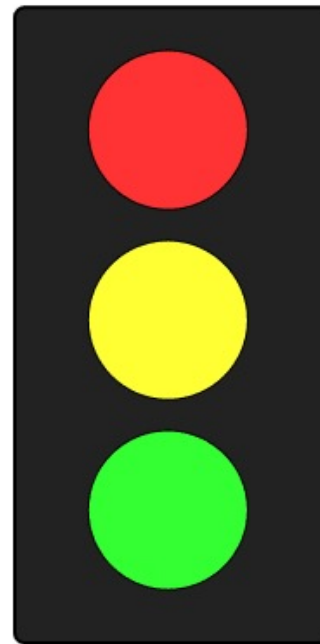
# Gestalt: Law of Past Experience

Objects may be grouped together based on previous experience, if an individual frequently sees those items paired together in time and space.

*Possible UX Response*:

Ensure visual messages are consistent for different user audiences.

# Perception of Location and Distance

**Two dimensional location**:
This ability lets us determine
whether a stimulus is coming
from the left or right / from
above or below.

**Depth perception**: This
ability allows us to
experience the world in
three dimensions based on
depth cues.

# Depth and Visual Cues