Class Activities

# Chapter 3: Perception: Recognizing Patterns and Objects

## 1. Beiderman’s Geons

The purpose of this exercise is for students to learn more about Beiderman’s Recognition by Components Theory. First, begin by cutting several of Beiderman’s geons from cardstock. Then, give each student or group one set of geons. Have the students use the geons to create as many objects as they are able to in a given amount of time.

## 2.Bottom-Up and Top-Down Approach to Perception

To illustrate the bottom-up approach to processing, present students with bits of information piece by piece until they can identify the complete percept. After each piece of evidence, ask students to guess what the percept is. A few examples you may want to use are

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| Percept: | Evidence, presented bit-by-bit: |
| Dog | Eyes, legs, nose, ears, tongue, fur, tail, paw, bark |
| School bus | Kids, windows, roof, wheels, yellow, school |
| Aaron Rodgers | Fall, stadium, ball, helmet, NFL, quarterback, Olivia Munn, Green Bay |

Next, to demonstrate top-down approach to processing, present students with the following words and ask them to say the very first word that comes to mind:

Animal

Mode of transportation

Athlete

Given the bottom-up exercise they competed previously, their answers should be dog, bus, and Aaron Rodgers. Discuss how this is an example of how context affects perception.

## 3. Top-Down Processing and Context

Top-down processing is contextually driven and the following figures illustrating the Muller-Lyer illusions can be presented to students to demonstrate this concept. Using these examples, have students create illusions created by contextual cues.



