

Exercise #3: Image Interpretation Test

Instructions:

1. Please read through all of the instructions for this exercise **before** beginning!
2. This exercise uses pattern recognition to identify specific objects on aerial imagery. When you interpret or deduce the significance of objects on an aerial image, you are using the elements of image interpretation. These elements include:
 - Size
 - Site - location in the world
 - Texture
 - Pattern
 - Shape
 - Shadow
 - Tone or color

When these elements are combined it is called the confluence of evidence. In other words, if only one element or characteristic leads you to determine the identity of an object, you may not feel very confident about your decision. However, if many elements (size, shape, pattern, and texture – for example) all lead you to the same answer then you have a “confluence of evidence” and feel confident about your decision. Image interpretation combines many of the components of spatial thinking that we have been learning about.

3. Read the instructions on the first page of the Image Interpretation Test (separate pdf). It will provide some examples of how to conduct this exercise. Make sure to understand that you need to be as specific as possible with your answers.
4. Number a piece of paper from 1-36
5. Record your time and begin by looking at each numbered image and identifying the principal object in the image.
 - a. Please record how long it takes you to complete the exercise.
6. Using the answer sheet provided (separate pdf), grade your answers to see how you did.
 - a. Make sure to note how many you got right out of 36
 - b. You may learn as much by comparing your answer to the actual answer and thinking about how you could have used spatial thinking to deduce the answer
7. Here are some questions for you to consider:

How long did the exercise take:

Number correct: ____ / 36

- 1- **Think about what you got correct and what you got wrong. Note any patterns of error that you made, challenges, and/or questions that you have.**
- 2- **What spatial thinking techniques/skills do you think were addressed in this exercise?**
- 3- **Do you think practicing this particular exercise would help you improve your spatial thinking skills? Why? Again, dig in here and think specifically about this exercise.**
- 4- **Would these skills transfer to any other aspects of your life/studies. This question is hard, but key to you really connecting what you are learning to your life. Please provide a specific example.**

Aerial Image Identification Exercise

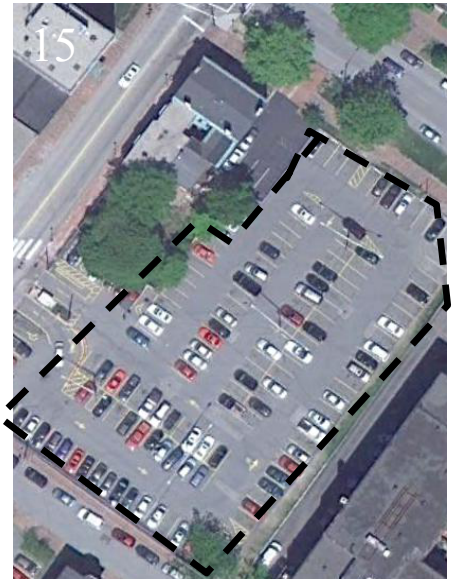
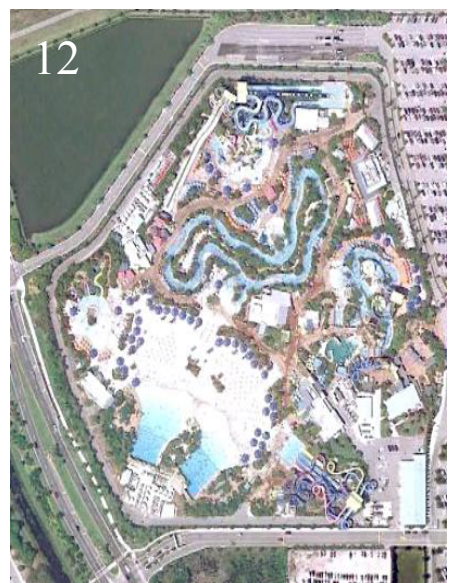
This is a series of tests designed to evaluate the potential ability of persons to be trained in the spatial ability of interpretation of aerial images. There are 36 images included, each requiring one principal identification. All images are overhead or near-vertical views of familiar urban and rural features in the United States. All examples are from images obtained using Google Earth.

The three images below provide examples to demonstrate the process. For each example, please consider what the central object is on that image. Example 1 (easy) is a picture of a Drive-in Movie Theater and the pattern on the image helps you determine this. Example 2 (difficult) shows a wood preserving or creosoting plant, with untreated wood at (A), treated material at (B) and pressure tanks at (C). The identification of Example 2 as simply a lumber yard or sawmill would be only partially correct, because an explanation is needed to explain why some stacks of wood are darker than others. The element that most aids in this interpretation is color/tone. Example 3 (easy) is an image of the Pentagon and the element that most aids in the interpretation is shape. The more complex the object, the more the confluence of evidence of multiple elements of image interpretation is needed. If it is difficult to pick the most important factor aiding in the interpretation, then just list one of the most important factors.

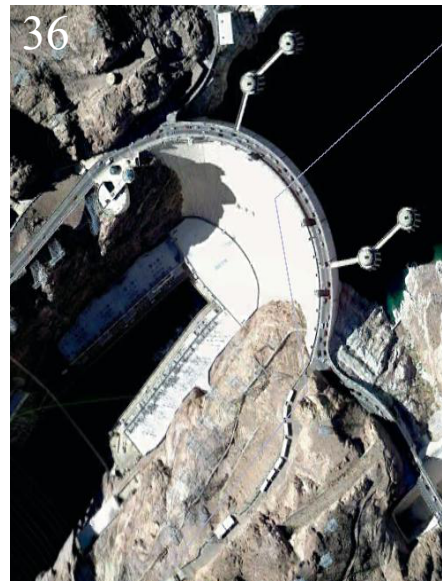


Specific answers are required in all cases. Thus “athletic field” will not suffice for a baseball diamond, nor with “buildings” correctly describe a hospital, shopping center or industrial complex. Do the easy ones first to get warmed up and save the harder ones for last that require additional study and deductive/spatial reasoning.









Aerial Image Identification Test Answer Sheet

1. Soccer Field
2. Air Field
3. Go Kart Track
4. Farm
5. Cemetery (actually
Arlington National
Cemetery)
6. Glacier
7. Orchard
8. Hospital - why is this not a
school - no athletic fields
9. Country Club
10. Green Houses
11. Rail Road Bridge
12. Water Park
13. Junk Yard
14. Switching Station
15. Parking Lot
16. Football Field
17. Trailer Park
18. Crops
19. Amusement Park
20. Gravel Pit
21. Apartments
22. Ski Resort
23. Beach
24. Golf Course
25. Car dealership - note cars in
more than 2 rows so not a
parking lot
26. Vineyard
27. High School
28. New Orleans Cemetery -
above ground burial
because of high water table
29. Oil Drill
30. Buses
31. Tanks
32. Lighthouse
33. Chicken Coop
34. Gated Community
35. Nuclear Power Plant
36. Dam (Hoover Dam)