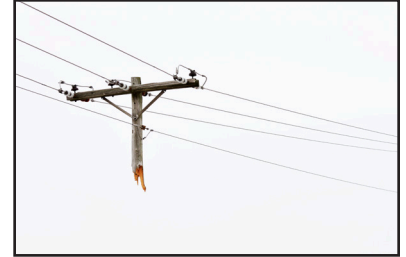


### Real or Photoshopped?

This game challenges players to carefully examine images and decide if they are real or manipulated.

#### Preparations:

- You will need some bingo markers or other tokens to give to players who answer correctly.
- Print the [answer sheet](#) for the AD/facilitator.
- Connect a [computer to a large display screen](#) or projector and set it up to display the [images](#).
- (Optional) Make full page prints of the images if you aren't able to display them on a screen.



**Note:** This game will play best with the images displayed on a large, bright television rather than using printouts of the images.

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#### Number of players:

This game can be played by any number of players as individuals or divided into two teams.

#### Object:

The object of the game is to collect the most tokens by properly identifying whether each image has been manipulated.

#### Playing the game:

1. Read this introduction to the group:

Since the invention of photography, image manipulation has been employed in order to fool the eyes and mind. In the past, this was achieved by drawing directly on film negatives or carefully cutting and collaging photographs together. Now, software like Photoshop makes image manipulation much easier. It can be difficult to tell when an image has been altered.

This game tests your ability to recognize the difference between altered and unaltered photographs. After each image, I will ask you to raise your hand to cast your vote on whether the image has been manipulated in Photoshop. Here is your first image.

2. Show the first image and prompt players/teams to decide whether it is photoshopped. If they are working in teams, encourage players to take a minute or two to discuss their thoughts as they decide on their answers.
3. Ask the group to raise their hands if they think the image is photoshopped.

4. Reveal the answer. Give a token to the team/players who guessed correctly.
5. If the image was photoshopped, show the next image in the sequence, which shows the unaltered original.
6. Using the notes in the [answer sheet](#), ask the follow-up questions and briefly discuss the image with the group.
7. Repeat steps until all images have been judged.
8. Ask each player/team to add up their tokens. Tally up the points and write each player's total score.

Although there will probably be a clear “winner,” the scoring does not need to be competitive. Players can be ranked individually based on their degree of success on the following list:

- 10–12 points: Eagle Eye. Have you considered becoming a detective?
- 8–10 points: Above average. Not much gets past you.
- 5–8 points: Average. You might be surprised by how many manipulated images fool you on a daily basis.
- 0–4 points: You could work on your perception skills. Don't trust everything you see!

**Extras:**

- Learn more about the history of photo manipulation [here](#).
  - Show this [trick image](#) and have the group consider how it was made. Is it one image or four images connected? Play this [time-lapse video](#) showing how it was set up.
  - For even more “real or photoshopped” challenges, check out this [quiz at Adobe's website](#).
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## Answer and Discussion Sheet

1. **Not photoshopped.** The reflections of the plane are naturally occurring in the water drops on a window.

**Discussion:** How do you think this picture was taken? (The view is looking up from beneath a passing plane through the sunroof of a car.)

2. **Photoshopped.** The horses were carefully selected and copied from the original corral image and placed into an image of an open field.

**Discussion:** Do you see any clues in the manipulated photo that could give it away? (The horse on the right still has a shadow from the fence on its rump.)

3. **Not photoshopped.** A wet tennis ball was spun into the air and photographed at a very high shutter speed, which results in a clear image of fast action that would look blurry in photos taken at normal speeds.

**Discussion:** How can you tell that the ball is spinning? (By the circular pattern of the water drops)

4. **Not photoshopped.** A car crashed into the pole and knocked it down. The cables did not break and were strong enough to suspend the top of the pole in place.

**Discussion:** If you thought it was photoshopped, what made you think so?

5. **Photoshopped.** The tightrope walker was tied in with safety straps that would catch him if he fell. The straps were erased with a technique called cloning. Areas of the tightrope and sky around the person were cloned to paint over the straps.

**Discussion:** Did you think other aspects of this image were manipulated? Why? (Some might have thought that the tightrope and climber were both added to the photo because it looks so dangerous.)

6. **Not photoshopped.** This is an actual image of the Julier Pass in Switzerland. It's a treacherous mountain road dating back to Roman times. The road requires a lot of serpentine curves due to the rough mountain terrain.

**Discussion:** Do you know what pictures taken from above are called? (Aerial photos. They used to be achievable only from airplanes or helicopters but are much cheaper now that small remote-controlled aerial drones are available to the general public.)

7. **Not photoshopped.** This is a photo of an actual thunderstorm at sea near Trieste, Italy. It was taken using a long shutter speed, which keeps the camera shutter open longer than usual, allowing a rapid succession of lightning strikes within a split second to be captured in a single exposure.

**Discussion:** If you guessed this was photoshopped, what made you think so? (It seems unlikely those ships would be out in that storm. It seems like extra lightning was added.)

8. **Photoshopped.** Many of the balloons have been duplicated using the Content-Aware Move tool. This tool allows moving or copying elements to a new location seamlessly. Photoshop uses artificial intelligence to detect the differences between the original and new location and can naturally blend the copied image into its new position.

**Discussion:** What clues give away that it was photoshopped? (Many of the balloons are exactly alike, but just different sized. The lighting seems exaggerated because it has been brightened to make the distant balloons stand out.)

9. **Photoshopped.** The diver's reflection was removed from the water using the Content-Aware Fill tool. In the past, this kind of photo manipulation would require hand-painting by a skilled artist. Photoshop uses artificial intelligence to determine the difference between an object and its background and then fills the object in with colors that match the background.

**Discussion:** What clue gave away that this was manipulated? (We can see the reflection of everything but the diver.)

10. **Not photoshopped.** This is the natural camouflage of the pallid scops owl. Scientific studies show that the owls choose to nest near backgrounds that enhance their camouflage.

**Discussion:** If you thought this was photoshopped, what aspect of the image did you think had been altered?

11. **Not photoshopped.** Starlings' natural flight patterns often result in interesting shifting shapes as they flock together and prepare to roost for the night.

**Discussion:** What makes you think this image was not altered? Did you know it was a flock of birds, or did you think it was something else?

12. **Not photoshopped.** This is a single photograph taken from a carefully selected vantage point that makes it appear like multiple images were combined.

**Discussion:** Do you have any guesses as to what this image is and how you can tell it is a real photo and not photoshopped? (It is a photo of two buildings and the trees and lamp post behind them. In the top right, we see the awning of the building closest to us. The left side is taken up by a brick building that is farther away. The bottom right shows the trees and lamp posts that are behind both buildings.)

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# Photo #1





## Photo #2



Photo by Atsme



## Photo #2 Original





## Photo #3

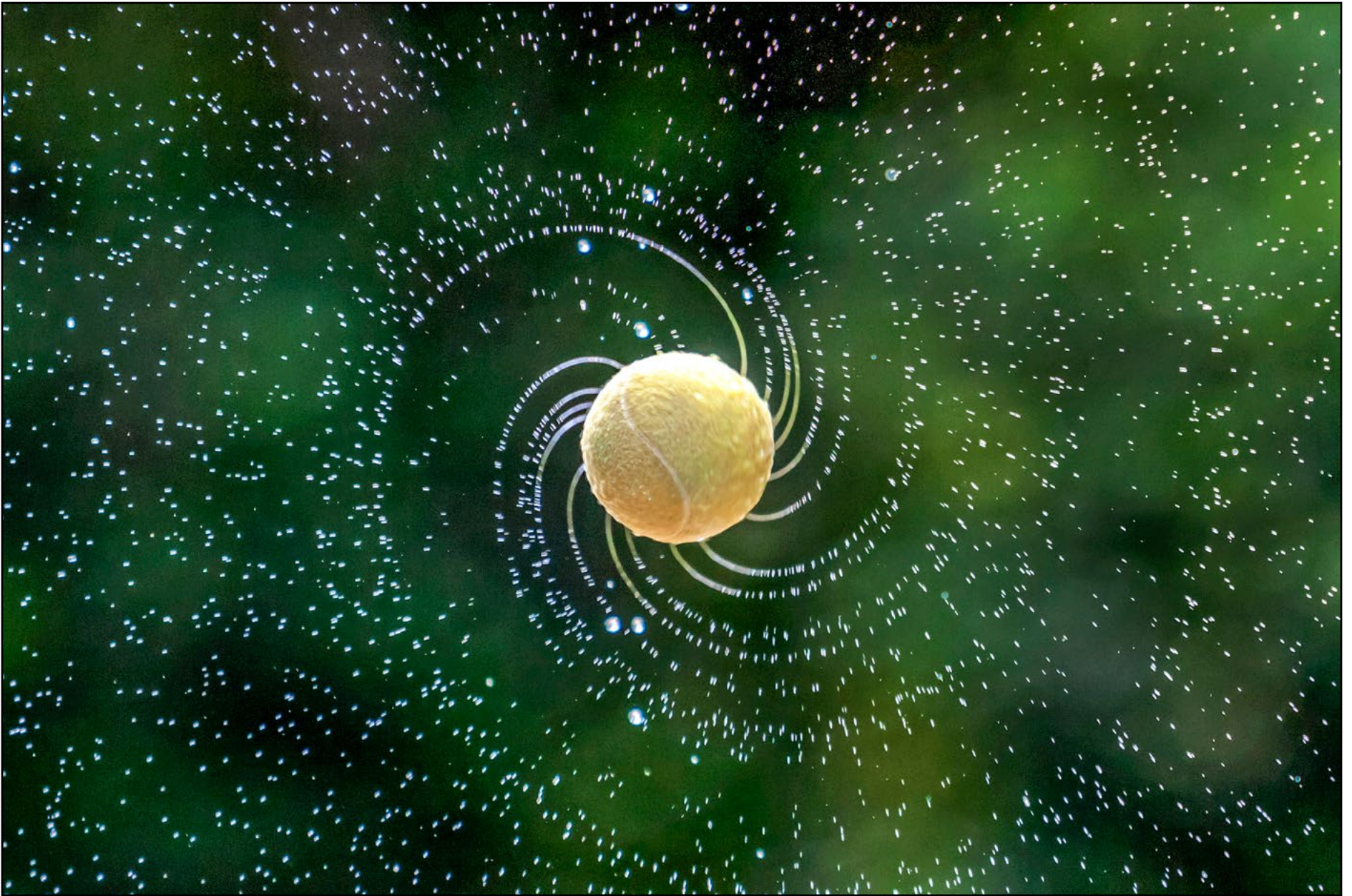




Photo #4



## Photo #5





## Photo #5 Original





Photo #6





## Photo #7



## Photo #8





## Photo #8 Original



## Photo #9





## Photo #9 Original





Photo #10





# Photo #11



## Photo #12

