

If you only have 15 minutes ...

15-Minute Activity

Analyze how M. C. Escher combines identical images in interlocking patterns to create optical illusions.

Discuss the following questions:

1. Observe (3 minutes)

Study these Escher works:

- “Day and Night” (black/white bird reversal)
- “Circle Limit III” (fish tessellation)
- “Procession in a Crypt” (archway patterns)

2. Discuss (10 minutes)

Mirror Opposites:

- How does Escher use identical shapes to create contrast?¹

Converging Patterns:

- Compare the triangle patterns in, “Circle Limit III,” and “Procession in a Crypt.” What creates their sense of infinity?²

Flat Yet Round:

- How do the curved white lines in, “Circle Limit III,” trick your eye into seeing depth?³

3. Reflect (2 minutes)

Which illusion surprises you most? Why?

Common Core Standard(s) Met:

CCRA.L.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCRA.L.2 Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas

1 Answers will vary. Images are identical in shape and size, but they are reversed and colored in black and white. Example: “Day and Night.”

2 Answers will vary but should include differences: “Procession of a Crypt,” is in black and white and looks realistic and, “Circle Limit III,” is in color. Similarities: Each creates a 3D image using triangles that are less than 180 degrees.

3 Curved white lines bend around the circle, creating a 3-D ball illusion.