In this challenge, students will create an accordion illusion inspired by OK Go’s video “The Writing’s on the Wall.” Students will explore the process of how an illusion is constructed.

**Grade Levels:** 2-4  
**Content Area:** Visual Art  
**Context for Learning:** Before starting this lesson, students will need to know how to use a ruler and scissors.

**TOPICS**  
Illusion  
Presentation  

**ACADEMIC LANGUAGE**  
Parallel  
Illusion  
Accordion Fold
Math: Common Core State Standards

2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Art: National Core Arts Standards

VA:Cr2.1.4a Explore and invent art-making techniques and approaches.
VA:Re.7.1.3a Speculate about processes an artist uses to create a work of art.

Note: This lesson plan may align with other sets of standards not included here.

LEARNING OBJECTIVES

Students will be able to:

Construct an accordion illusion with supplied materials

Present their illusion to a small group or to the class

Explain why or how their illusion works
MATERIALS

Printer paper or cardstock  Ruler
Markers, crayons, or colored pencils  Glue
Scissors

OPENING ACTIVITIES/MOTIVATION

Play the “The Writing's on the Wall” music video for the students. Ask students if they can figure out how the band created their illusions. Then, discuss with students what illusions are and how some of them work. Next, play the “Triangle” illusion video from OK Go Sandbox. This video offers a more complex overview of what the students will complete, but shows the band engaging in a similar structured activity. Explain to them that they will make a small-scale accordion fold illusion, while the band uses mainly large-scale illusions throughout the video. An illusion can be scaled up or scaled down to make it bigger or smaller than the original version. Next, it may be helpful to review the academic language for this lesson.

Parallel: Two lines that never intersect are called parallel lines.

Illusion: An illusion is an image that surprises us when we look at it from a specific point of view because from all other points of view, it appears distorted or looks like something else.

Accordion Fold: An accordion fold is a way of folding paper forward one way and then back the other so that the edge of the paper looks like a zig-zag.
PART ONE: SMALL-SCALE ILLUSIONS

Students will create a personal, small-scale illusion using an accordion fold.

In order to create the accordion fold illusion, students will complete the following steps:

1. On a piece of 8.5" by 11" cardstock, draw 10 lines that are each 1 inch apart.

2. Accordion fold the cardstock along the drawn lines. Accordion folding is simply alternating the way in which you fold the paper so that your end result resembles an accordion or a zig-zag. The motion of accordion folding is fold one way and fold back the other, etc., etc.

3. On another 8.5" by 11" piece of cardstock, draw lines that are 1 inch apart just like you did on the blank cardstock.
4. On the lined cardstock, draw two different images. Make one image take up six inches of the cardstock and the other image take up 5 inches of the cardstock.

5. Then cut on the lines. One image should have 6 strips, and the other image should have 5 strips.

6. Glue the strips to every other fold on the accordion folded cardstock for the first image and repeat for the second image.

From one side of the accordion fold, one image they drew can be seen, and on the other side of the fold the second image can be seen. Talk with students about the illusions they just created and the importance of perspective when viewing the illusion.

Tip: If your students are struggling with what to draw on the two sides of their accordion illusion, try suggesting the following ideas. This can vary greatly by ability level, making the activity accessible for all students.

Contrasting ideas: night and day, happy and sad, etc. Words or phrases: make the accordion illusion using two different words by writing one on each side of the illusion. Colors: make the accordion illusion using two different colors by coloring each side of the illusion.
PART TWO: EXHIBIT

Students will present their optical illusions to the class!

Have students present their optical illusions in an “illusion exhibit.” Here students can show each other their work and provide each other with support and insight into how illusions can be understood. This encourages communication with peers and allows them to practice public speaking skills.

PART THREE: COLLABORATE

Students will complete a collaborative, large-scale illusion as a class.

In this challenge, students are encouraged to work as a class to create a large-scale illusion. This can be easily done on a school staircase! The teacher should ask the students what they learned from their personal illusions and how that will help them in constructing their large-scale illusion. What ideas do students have for this illusion? Can they build off of designs shared in the illusion exhibit?

Explain to students that the staircase in their school looks and acts like the accordion fold they just created. Looking down at the top of the stairs from above will show them one image, while looking towards the stairs from the bottom will show them a different image (on a different part of the stairs). Have students use paper to cover the tops of the stairs and the backs of the stairs so they can see these two perspectives. The simplest way to do this is to use two different colors of paper. From the top you should see one color, and looking at the stairs from the bottom you should see the other color (plus, then you could reuse the paper!).

No stairs? No problem! This lesson can be modified by using a large poster board to collaboratively create a larger scale accordion illusion. Split the class into two groups: group 1 will work on one side of the illusion, while group 2 will work on the other side of the illusion.
ASSESSMENT

**Evaluation of Learning Objectives:** Have a discussion with your students. After presenting their illusions to the class, what did they see that worked best? How would they modify their design if they completed the activity again? What did they learn? If they completed the large-scale challenge, what were the difficulties they encountered trying to make this illusion work?

**Closure:** Where else have students seen illusions in real life? Have a discussion about them!

**Share:** Reach out to OK Go Sandbox through email or social media at @okgosandbox and share your videos of this challenge with us! Have any feedback? We want to hear it!