Principles of Art & Design 1: Elements
Line, Shape, Form

Suitable Ages:
Suitable for ages 14+

Skill Level:
Basic

Materials Required:
• 3Doodler 2.0: 1 for each student (recommended; can also deploy one for every two students)
• 3Doodler ABS or PLA strands: 3 strands per student
• Paper

Duration:
~45 minutes
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Objective
Following this lesson, students will be able to use the 3Doodler to create a Line, Shape, and Form, and provide an explanation of how each figure fits the definition. The key to this lesson is being able to properly describe the process of creating these Elements to come to a better understanding of their use in art.

Warm Up
Using the Elements Handout, students will explore the definitions of Line, Shape and Form and their application. Using the handout, students will follow along with the teacher and take notes.

Activity
Students will use the 3Doodler to create a Line in any method they choose (flat on paper, in the air, whatever).

Next, they will create a 2-dimensional Shape flat on a sheet of paper.

Finally, they create a 3-dimensional Form.

Each student will have three strands of plastic to complete all three Elements, so encourage students to plan accordingly. Creating the Line should take the least amount and creating the Form should take the most.
Sequence
1. Students will be introduced to the terms and methods using the Elements Handout, following along and taking notes (10min.)
2. Each student will receive three Doodle Strands and create a Line. (5min.)
3. Create a Shape (5min.)
4. Create a Form (5min.)
5. Write a paragraph for each example, explaining how what they created fits the description of each Element (10min.)
6. Exit reflection: Describe examples where you have seen a Line, Shape, and Form used in art (5min.)

Striving Students
This lesson is less about Doodling and more about describing the process of Doodling. Help striving students focus on understanding the vocabulary and descriptive components of the lesson.

Accelerated Students
Proof of understanding the concepts is demonstrated in the descriptive language used to describe their creations. Encourage these students to see this as more of a writing exercise. Descriptions shouldn't be long, but precise.

Evaluation Strategies
Students will be graded according to a rubric on attentiveness and preparation, as well as following along with the Elements Handout note sheet. Creating proper examples of a Line, Shape, and Form will factor heavily in the grade, as it will determine if the students' descriptions are accurate. The descriptions will be the biggest contributing factor to the students' grades in this lesson. Finally, the Exit Reflection will demonstrate mastery of both the concepts and the ability to articulate them.
<table>
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<tbody>
<tr>
<td><strong>Participation</strong></td>
<td>Students raise their hands to ask and answer pertinent questions. Follow directions. Stay on task.</td>
<td>Students raise their hands to ask and answer pertinent questions. Follow directions.</td>
<td>Students answer when called upon. Follow directions.</td>
<td>Students fail to engage in classroom discussion. Failure to follow directions/stay on task.</td>
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<td><strong>Attentiveness</strong></td>
<td>Students are following along and paying close attention at all times.</td>
<td>Students are following along with the lesson.</td>
<td>Students need to be reminded of instruction due to lack of attention.</td>
<td>Students are not following along/paying attention.</td>
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<tr>
<td><strong>Creation of Line, Shape, Form</strong></td>
<td>Creation of the 3 Elements according to their definitions.</td>
<td>Successful creation of 2 of the Elements according to their definitions.</td>
<td>Creation of 1 of the Elements according to their definition.</td>
<td>Failure to create any of the Element according to their definitions.</td>
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<tr>
<td><strong>Paragraph describing each creation</strong></td>
<td>Each paragraph identifies how each creation qualifies as its respective Element of art.</td>
<td>Identifies how each creation qualifies as Element. Paragraphs aren't long enough.</td>
<td>Failure to fill in all blanks. More than 4 mistakes.</td>
<td></td>
</tr>
<tr>
<td><strong>Exit Reflection</strong></td>
<td>Gives example of all 3.</td>
<td>Gives example of 2.</td>
<td>Gives example of 1.</td>
<td>Doesn’t complete exit reflection.</td>
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Handout: Elements of Art: Line, Shape, Form

When discussing art, we break down its features to their simplest terms. These are known as the **Elements of art**. When we discuss the methods of creating art, we talk about the **principles of art**. A simple way to distinguish between the two is to think of the Elements as the pieces, and the principles as the ways in which they are used or put together.

This lesson will deal with three of the Elements of art: Line, Shape, and Form. The lesson will focus on these three because of the way that the 3Doodler radically changes the ways that we can create these Elements.

**Line:** A Line is defined as the path of a point moving through space. When describing a Line, you usually talk about its direction. The 3Doodler turns traditional Line making on its head as it allows you to draw in midair.

**Shape:** A Shape is usually 2-dimensional and can be described in terms of length and width. Shapes traditionally drawn on paper were stuck there, but with the 3Doodler, you can create a Shape and pick it right up off of the page.

**Form:** A Form exists in 3-dimensional space and therefore in addition to being inFormed by its length and width, it can be described as having depth or height as well. When creating with the 3Doodler even a single Line has Form and dimensionality. That's just the beginning though, as you're able to build up and to develop Shapes any way you like.

Humans are social creatures and much of our understanding comes from being able to talk about the concepts at play around us. Being able to talk about art and how it is created in the simplest terms helps to enrich understanding both when observing art and creating your own. While it may seem tedious, being able to accurately describe the function of the Lines in a piece of artwork can reveal not only the artist's intent, but also the effect that a piece of art may have on the viewer.

**Writing Exercise**

On a separate sheet of paper, write a paragraph for each Element of art that you've created. Describe the features of your creations in depth, and explain how your creation fits the definition of each Element.
Exit Reflection

Describe a way in which you have seen a Line, Shape, and Form used in art. Please provide at least one example of each.
Additional Resources

Tutorial Videos
Please visit the3Doodler.com/videos/#started to find videos demonstrating the skills required for this activity. Individual videos that will be useful include:

- **Inserting Plastic**:
  - YouTube: https://www.youtube.com/watch?v=ZSmdhZEnMDE
- **The Buttons**:
  - YouTube: https://www.youtube.com/watch?v=mos2SBukObo
  - Dropbox: https://www.dropbox.com/s/cqkozrmhktr3u38/Buttons.mp4?dl=0
- **Reversing Plastic**:
  - YouTube: https://www.youtube.com/watch?v=aD84E55mgac
  - Dropbox: https://www.dropbox.com/s/mpzxcrky9f5aq41/Reversing%20Plastic.mp4?dl=0

Additional Inspiration
For additional inspiration and ideas about other simple projects that can be accomplished at this level, check out the following links:

- Stencils and Projects: the3Doodler.com/community/
- Doodles by You: the3Doodler.com/doodles/
- Videos: the3Doodler.com/videos/
  - Getting Started: the3Doodler.com/videos/#started
  - Tips & Tricks: the3Doodler.com/videos/#tips

3Doodler/EDU
More curricular materials are available at the3Doodler.com/education/.

If you have additional ideas for classroom activities or lessons, feel free to reach out to us at education@the3Doodler.com!