

Geometry Standard

Students explore and find basic geometric elements and terms, two-dimensional shapes and three-dimensional objects. They find and use symmetry. They move two-dimensional figures in a plane and explore congruent and similar figures.

MA-04-3.2.1

MA Mathematics (domain)

EP – end of primary

3 Geometry (subdomain)

2 Transformations of Shapes (organizer)

1 (first standard)

MA-EP-3.2.1

Students will **describe and provide examples** of line symmetry in real-world and mathematical problems or will apply one line of symmetry to construct a simple geometric design. **DOK 2**

Lesson Plan 1 within a unit of study on symmetry (N. Doering)

Objective: 1. Students will **identify, describe (define) line symmetry (symmetrical)**. **DOK 1** 2. Students will **create** symmetrical shapes with their bodies. **DOK 2** 3. Students will **design a sequence** with beginning and ending symmetrical shapes (Letters & Shapes). **DOK 3**

Grade Level: 2 first lesson

Content Areas: **Language Arts** (definition & symmetry in letters), **Mathematics** (geometry, shapes, line symmetry recognition); **Physical Education** (symmetry in body shapes); **Dance** (create a sequence [8 count] with beginning shape symmetrical, middle - travel nonsymmetrical, end symmetrical shape)

Procedures:

Boys and girls, today we will learn a big fancy word called symmetrical. Raise your hand if you have ever seen a butterfly. Notice a butterfly looks the same on both sides. If you pretend divide it down the middle the wings look the same on both sides – they mirror each other. We call that symmetrical – a good way to remember the word is to call it the same – in math we call it line symmetry. When we draw a pretend line down the middle it looks the same. Later that will help us with geometry and even fractions.

- I. Show letters: the letter A – does it look the same on both sides if you divide it down the middle. How about the letter T?
- II. Show the various shapes. a. See or Know in real-life b. Share - I will call on someone to name the object. c. Now you draw a symmetrical shape. Next we will do some physical activity to practice symmetry with our body.
- III. Activity:
 - a. Body Shapes (letters – A, T, I, O)
 - b. Body Shapes (create & show me) low level, medium level, high level
 - c. Body Shapes with a partner checking – give high five if your partner creates symmetrical shape facing you
 - d. Sequence – 8 counts Beginning 2 counts, travel 4 end 2 counts – partner checks

III. **Closure:** Today we learned, show me, compliment, next time

IV. Resources:

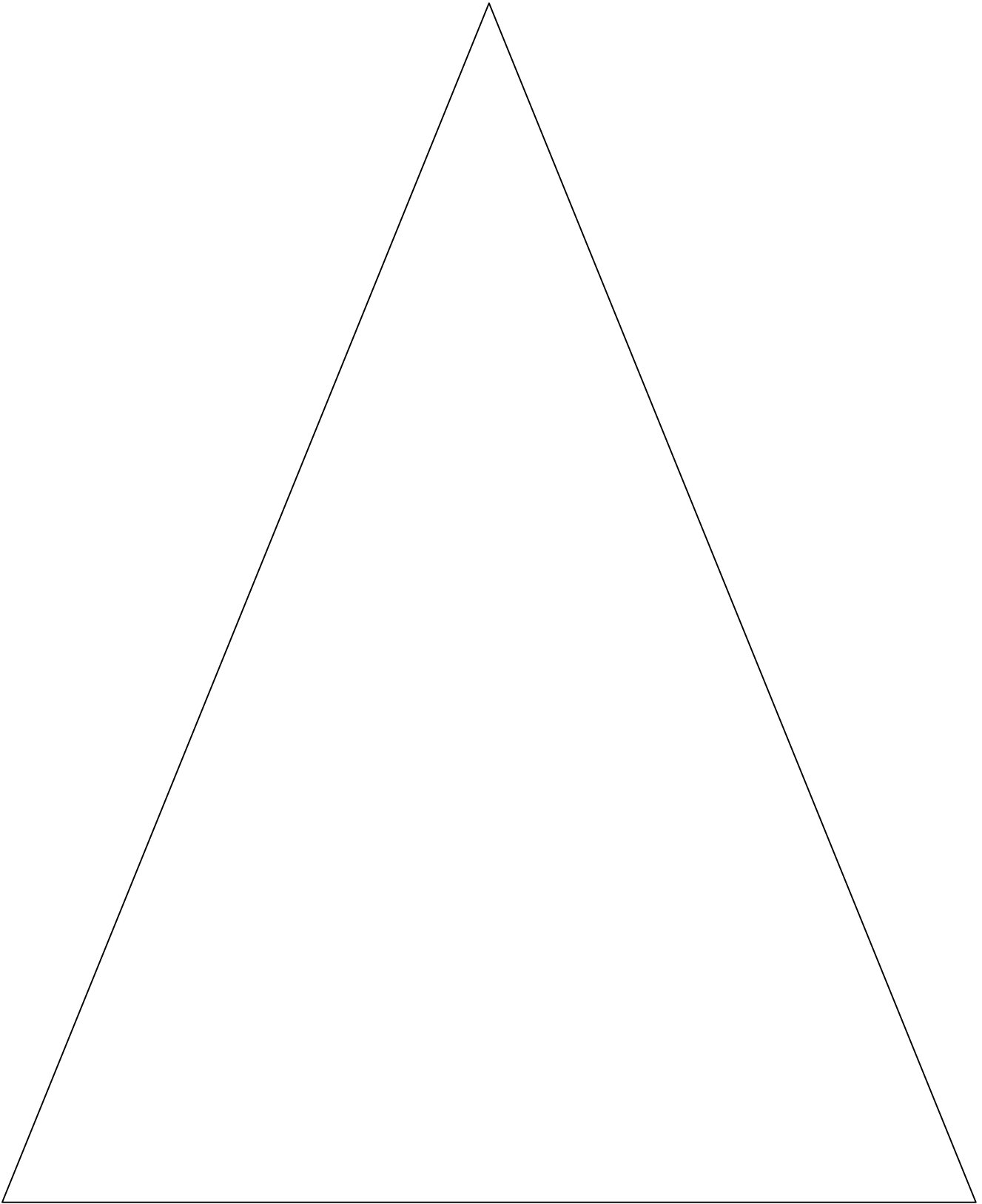
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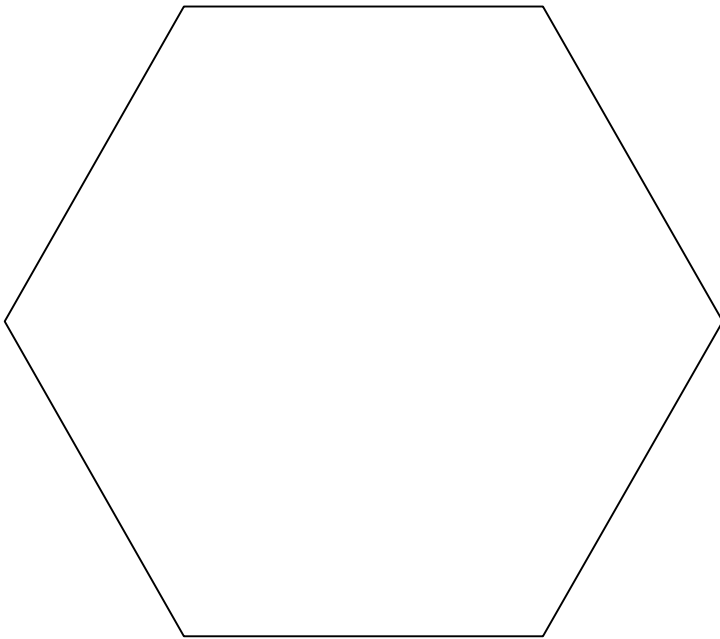
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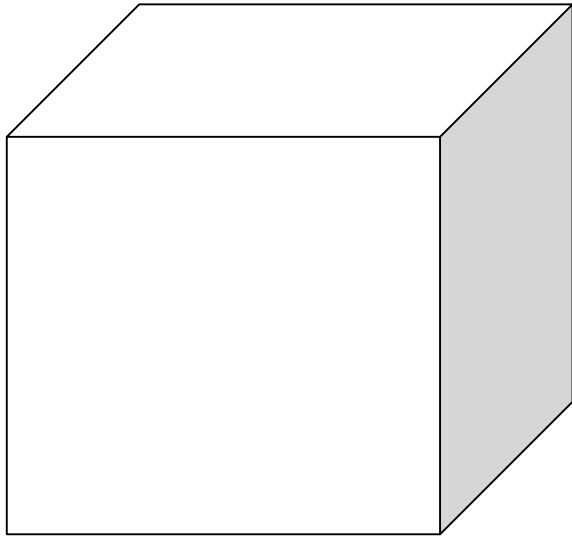
Mr. Gierhart – line & rotational symmetry

KDE – curriculum resources; livetext lesson plan format to get DOD's









In the space below draw a Symmetrical Shape.