

MATHEMATICAL VOCABULARY: AREA OF A TRIANGLE

Word	What does it mean?	Example	Visual prompt
Triangle	A shape with three straight sides and three corners (vertices).	Real-Life Example: A tent is shaped like a triangle.	
Vertex	A corner where two or more sides meet. (Plural vertices.)	<p>Real-Life Example: A Slice of Pizza</p> <p>A pizza slice is shaped like a triangle.</p> <ul style="list-style-type: none"> • The pointy end of the slice is a vertex—where the two straight edges meet. • You can even touch that point to feel the corner. <p>Sensory Anchor</p> <ul style="list-style-type: none"> • Use tactile shapes (foam, felt, or cardboard) and highlight the corners with stickers or textures. • “Let’s count the corners” instead of “Let’s find the vertices”—this keeps it friendly and concrete. 	

The bottom line of a shape. It's the part a shape rests on or stands on.

Real-Life Example: A House

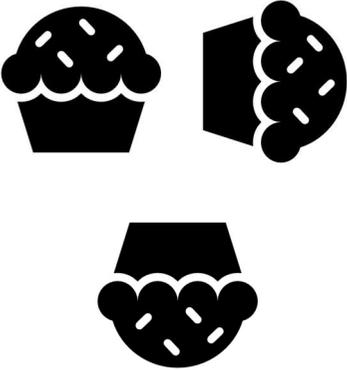
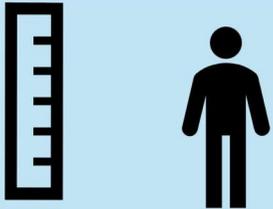
- Imagine a house sitting on the ground.
- The flat bottom edge of the house is the base—it holds everything up.
- You can say: “The base is the bottom that supports the shape.”

Sensory Anchor:

- Use foam shapes or cardboard cutouts and let the teen touch the base.
- “Let’s find the bottom side” instead of “Let’s find the base”—this keeps it concrete and kind.



Base

<p>Base of a triangle</p>	<p>A base is usually the bottom side of a triangle—but that’s only true when the triangle is sitting upright.</p> <p>If you rotate the triangle (turn it sideways or upside down), the base might look different—but it’s still just any side you choose to measure from.</p>	<p>Real-Life Example: A Slice of Cake</p> <ul style="list-style-type: none"> • If the cake slice is sitting flat on a plate, the bottom edge is the base. • If you tilt the slice or turn the plate, the base might now be a different side—but it’s still the side the slice is “resting on.” <p>Sensory Anchor:</p> <ul style="list-style-type: none"> • Hold and rotate a triangle cutout (foam or cardboard). • “Let’s pick a side to be the base—any side works!” • Use stickers or textures to mark the chosen base, so it feels concrete. 	
<p>Height</p>	<p>Height is how tall something is—from the bottom to the top.</p> <ul style="list-style-type: none"> • It’s the up-and-down distance. • You measure height by going straight up from the base (bottom) to the top. 	<p>Real-Life Example: A Person</p> <ul style="list-style-type: none"> • When someone says, “I’m 5 foot 2,” they’re talking about their height. • You measure from the ground up to the top of their head. 	

		<p>Sensory Anchor:</p> <ul style="list-style-type: none"> • Use string or pipe cleaners to show height on foam shapes. • Say: “Let’s find how tall it is” instead of “Let’s find the height”—this keeps it friendly and concrete. • Trace the height line with your finger or a textured sticker. 	
<p>Perpendicular height</p>	<p>Perpendicular height is the straight-up distance from the base of the triangle to the top corner (called the vertex), measured at a right angle (90°).</p> <ul style="list-style-type: none"> • It’s like dropping a ladder straight down from the top point to the ground—it doesn’t lean or tilt. • This height helps us find the area of the triangle 	<p>Real-Life Example: A Tent</p> <ul style="list-style-type: none"> • Imagine a triangle-shaped tent. • The base is the ground. • The perpendicular height is the pole inside the tent that goes straight up from the ground to the top of the tent. • Even if the tent is tilted, the height is still measured straight up from the base, not along the slanted sides. <p>Sensory Anchor:</p>	

		<ul style="list-style-type: none"> • Use foam triangles and a pipe cleaner or straw to show the height. • Say: “Let’s find the straight-up line from the bottom to the top” instead of using formal terms. • Trace the height with your finger or use a textured sticker to make it feel real. 	
<p>Area</p>	<p>Area means how much space something covers on a surface. It’s the flat space inside a shape—like how much floor a rug covers.</p> <ul style="list-style-type: none"> • You don’t count the edges—you count the space inside. • It’s measured in square units (like square centimetres or square tiles). 	<p>Real-Life Example: Picnic Blanket</p> <ul style="list-style-type: none"> • Imagine laying out a picnic blanket on the grass. • The area is how much ground the blanket covers. • A bigger blanket has more area—it covers more space. <p>Sensory Anchor:</p> <ul style="list-style-type: none"> • Use square tiles or stickers to fill a shape and count how many fit inside. 	

		<ul style="list-style-type: none"> • Say: “Let’s find how much space it takes up” instead of “Let’s calculate the area.” 	
<p>Equilateral triangle</p>	<p>An equilateral triangle is a triangle with:</p> <ul style="list-style-type: none"> • Three equal sides • Three equal angles (each one is 60°) <p>It’s a triangle that looks perfectly balanced, like all sides are holding hands equally.</p>	<p>Real-Life Example: A Sandwich</p> <p>Imagine a sandwich cut into triangles where all three edges are the same length.</p> <ul style="list-style-type: none"> • That’s an equilateral triangle—equal sides, equal corners. <p>Sensory Anchor:</p> <p>Use foam shapes or cardboard cutouts with stickers on each side to show they’re the same.</p> <ul style="list-style-type: none"> • Say: “Let’s find the triangle where all sides match” instead of using formal terms. • Fold the triangle to see how the sides line up—this shows symmetry in a tactile way. 	 <p>A photograph showing a white plate with several triangular sandwiches cut into equilateral shapes, filled with lettuce, tomato, and meat. Next to the sandwiches is a round, golden-brown roll with a dusting of powdered sugar.</p>

Isosceles triangle

An isosceles triangle is a triangle with:

- Two sides that are the same length
- One side that's different
- The two matching sides are called the legs, and the different one is the base

It's like a triangle that's almost symmetrical—two sides are like twins, and one is the odd one out.

Real-Life Example: A Standing Person

- Imagine someone standing with their legs apart.
- Their legs form the equal sides, and the ground between their feet is the base.
- The triangle shape between their legs is isosceles.

Sensory Anchor:

- Use foam triangles or cardboard cutouts with stickers on the equal sides.
- Say: "Let's find the triangle with two matching sides" instead of using formal terms.
- Fold the triangle to see how the equal sides line up—this shows symmetry in a tactile way.



Scalene triangle

A scalene triangle is a triangle where:

- All three sides are different lengths
- All three angles are different sizes
- It looks a bit lopsided—no matching sides, no symmetry

Real-Life Example: A Ramp

- A ramp used for wheelchairs or skateboards is often shaped like a scalene triangle.
- It has:
 - One long slanted side (the ramp itself)
 - One short vertical side (the height)
 - One flat base (the ground)
- None of the sides are the same length—making it a perfect scalene triangle.

Sensory Anchor:

- Use foam or felt triangles with different textures on each side.
- Say: “Let’s find the triangle with no matching sides” instead of using formal terms.
- Trace each side and compare lengths with string or stickers.



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Right-angle triangle

A right-angled triangle is a triangle with one corner that makes a perfect square angle—called a right angle (90°).

- It looks like an L-shape inside the triangle.
- The other two angles are smaller and different.
- It can be isosceles (two equal sides) or scalene (all sides different)—as long as one angle is 90° , it's a right-angled triangle.

Real-Life Example: A Ladder Against a Wall

- The ground, the wall, and the ladder form a right-angled triangle.
- The corner where the wall meets the ground is the right angle.

Sensory Anchor:

- Use foam shapes or draw an L in the corner to mark the right angle.
- Say: “Let’s find the triangle with a square corner” instead of “Let’s find the right angle.”
- Trace the L-shape with their finger or use a textured sticker to feel the corner.

