



The Crown

A crown is worn by king or queen to show grace and power as the head of state in a monarchy.

MAKE THE SHAPE!

Are you ready?

Starting from the cube, open 3 TRIANGULAR pieces outward from the cube.



TRIANGULAR – shaped like a triangle, having 3 sides and 3 corners.



It looks like a hat with the center point up. What does it look like when you flip it over?



Work with a buddy and use magnetism to connect 2 crowns. How many different connections can you find?



The Star

The six-pointed star is an easily accessible STELLATED shape of stellar proportions.

MAKE THE SHAPE!

Are you ready?

Starting from the Crown, open the remaining points and allow the magnets to form a Star.



STELLATED – shaped like a star, having points radiate out from the center.



How does a solid CUBE transform into a STAR shape with a hollow core?



Work with a group and use magnetism to connect 4 Stars into a solid shape.



The Hive

Bees build honeycomb hives to house their bee families in the sweetest way!



MAKE THE SHAPE!

Are you ready?

Starting from the Star, carefully unfold three points into HEXAGONS, allowing the magnets to combine in the middle of the shape.



HEXAGON – a polygon with six sides and six angles.



Is a HEXAGON a stable shape for building structures? Why or why not?



Work with a group and use magnetism to connect 4 Hives into a solid shape.



The UFO

A UFO is an Unidentified Flying Object. Here's ONE version of a UFO shape, Shashibo style!

MAKE THE SHAPE!

Are you ready?

Starting from the Hive, carefully open and flip one point at a time through the center: 1, 2, 3! Then, let the INVERTED shape connect magnetically in the center.

VOCAB

INVERTED – flipped inside out.



Is the UFO shape an INVERTED cube? Why or why not?



Work with a buddy and use magnetism to connect a UFO and a HIVE to make an 2 Shashibo spinner.



The Ring

A ring is a circle shape often used in jewelry and design. Even the planet Saturn has a ring!



MAKE THE SHAPE!

Are you ready?

Starting from the UFO, carefully open the center of the shape. The ring is a loose shape, set it down on a table or desk.



TORUS – in mathematics, a doughnut-shaped object.





The ring is not a fixed shape, why won't the Shashibo magnets hold this ring shape?



Work carefully with a group and use magnetism to connect 4 Rings into a solid shape.



The Ball

We call this shape a Ball, but it's not a sphere: the mathematical name for this shape is a **RHOMBIC Dodecahedron.**



Are you ready?

VOCAB

Start with the Ring resting open on a table. Carefully lift and curve one side of the Ring, and then lift and round the other sides until you have a ball.

> RHOMBIC - having the shape of a rhombus, a shape with 4 sides of equal length.



If a Decahedron is a ten-sided object, and Dodeca means twelve, what is a Dodecahedron?



Work with a buddy turn the Ball back to a Cube! Hint: open up to a Ring and flip 3 points through the center so the Cube art moves from the inside of the Ring to the outside of the Shashibo, then pull in the points to form a Cube.