

# Amazing Hexaflexagons

## You will need...

- Hexaflexagon Templates (on card stock)
- Scissors
- Colouring utensils

## Safety

### Considerations

- Sharp Scissors

## Activity Description

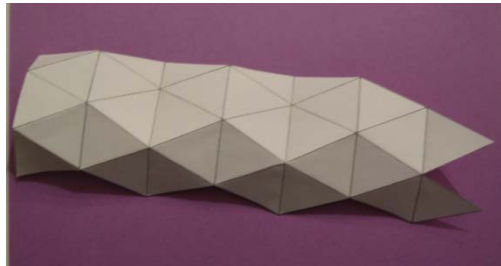
Campers will explore the mathematical properties of paper folding, in this low energy activity perfectly suited for after lunch, or when campers need a quiet moment. This is a great connection to patterns, volume, and strength of shapes. What can you build with your hexaflexagon?

## Big Ideas

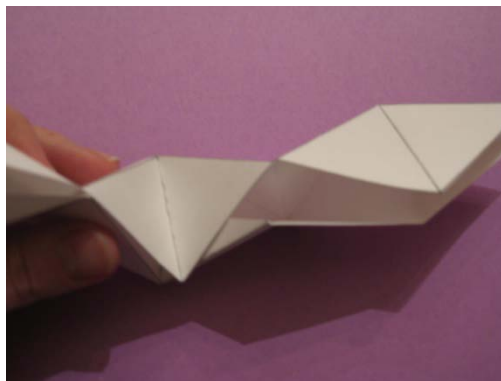
- Math, geometry, relationships in space

## Procedure

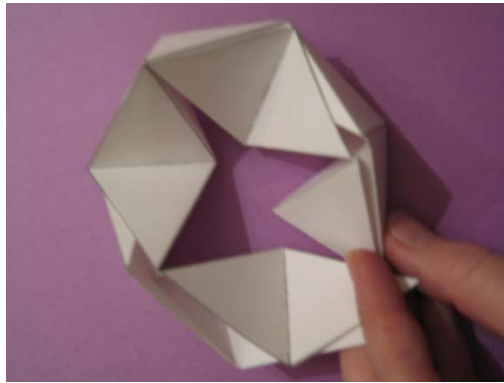
1. Cut out the hexaflexagon template and fold along the drawn lines.



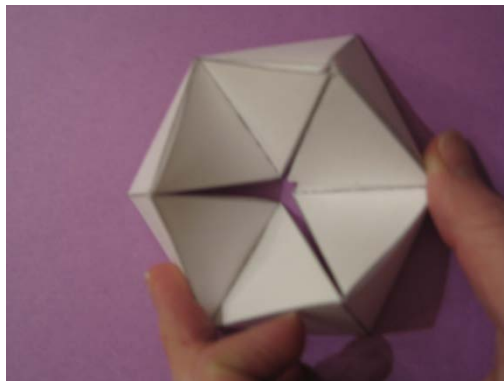
2. Fold the end edges inwards so that every two triangles form a separate unit. Instructors please note that this step may require some practice and the campers may need your help.



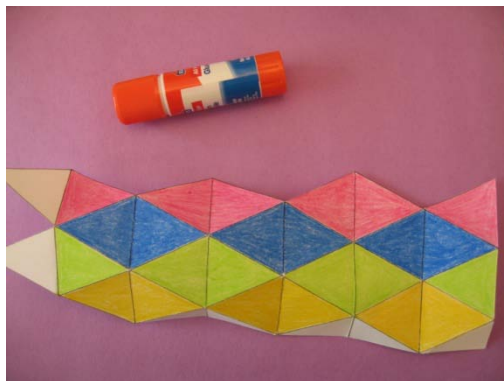
3. Tuck the two triangular tabs at one end into the opening on the opposite side of the hexaflexagon.



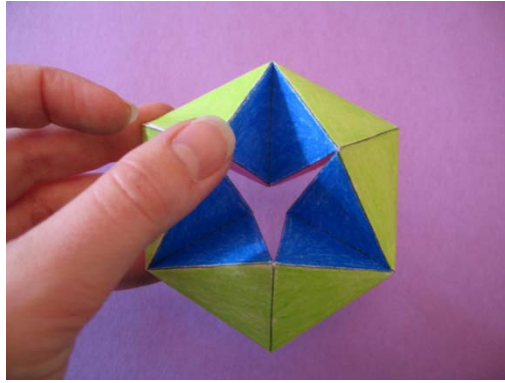
4. Gently try twisting the hexaflexagon outwards from the centre. You should see that the entire 3-D structure contorts to reveal another side of the flexagon.



5. Depending on the level of camper enthusiasm, you can number the sides on each appearing face, then unfold your flexagon. Colour each face a separate colour.



6. Glue the tabs into the underside of the opposing openings. Your hexaflexagon is now complete.



## **Modifications/Extensions**

Hexaflexagon faces can also be decorated using cut out pictures from magazines to add some additional pizzazz!

Supplement with the “Human Knot” game.

## **Debrief Activity**

- “The Human Knot” game