AMSI
AUSTRALIAN MATHEMATICAL SCIENCES INSTITUTE

The Versatile Circle

Janine McIntosh janine@amsi.org.au

Michael O'Connor moconnor@amsi.org.au

The Improving Mathematics Education in Schools (TIMES) Project

The Versatile Circle

A conversation about the properties of 2D shapes and 3D objects

With thanks to Peter Carmichael, Principal Project Officer - QCAR Mathematics, Nambour

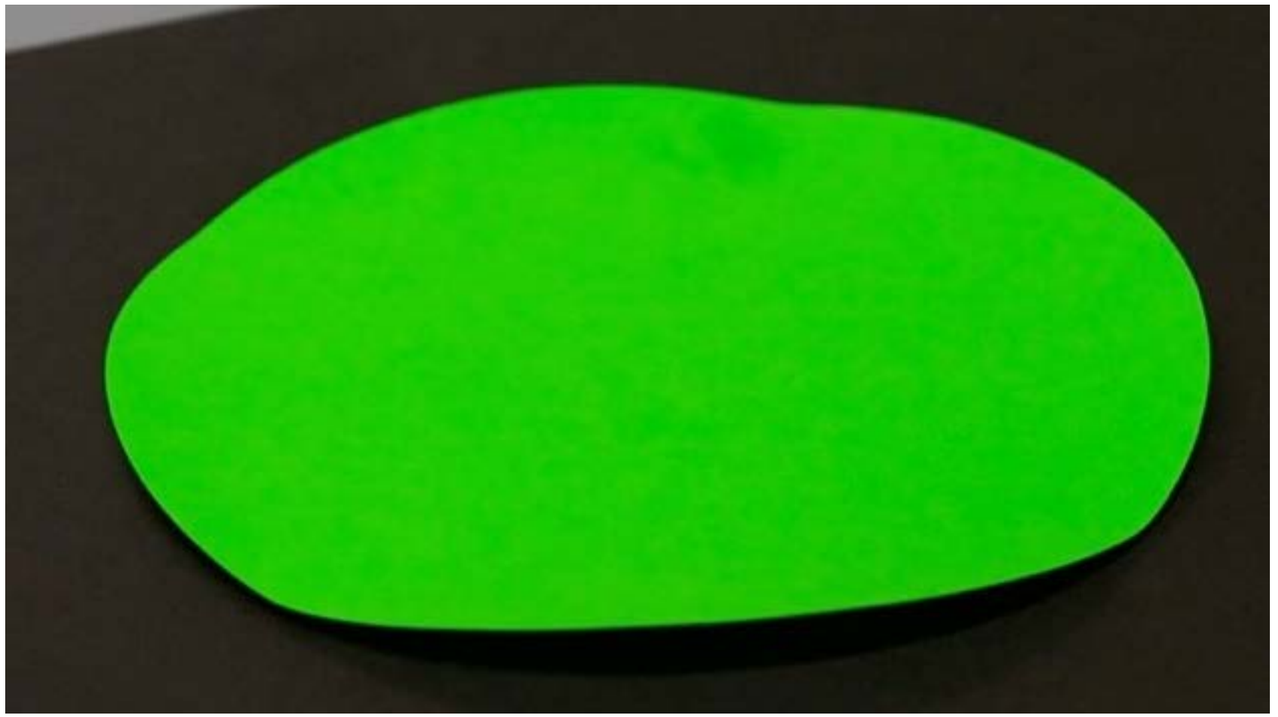
The Versatile Circle

A conversation about the properties of some 2D shapes and 3D objects

Begin with a piece of paper in the shape of a circle.

What are its properties?

How can we find the exact centre?



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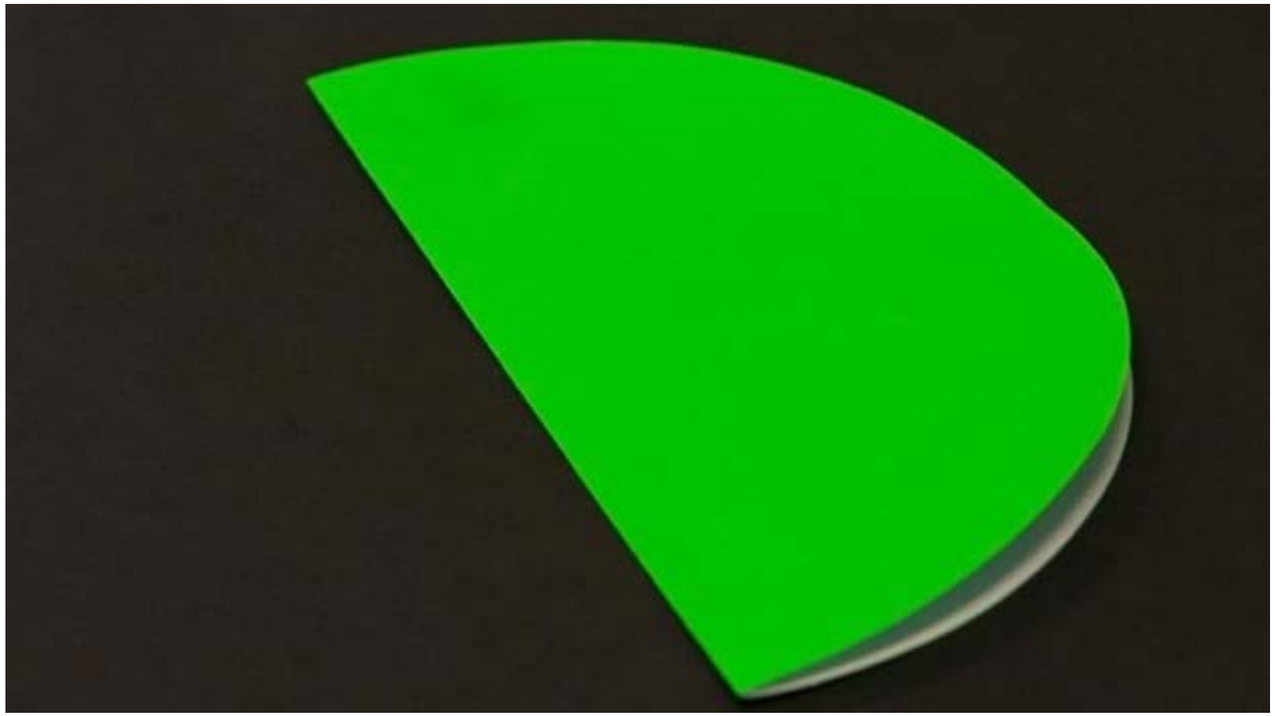
A conversation about the properties of some 2D shapes and 3D objects

semi circle



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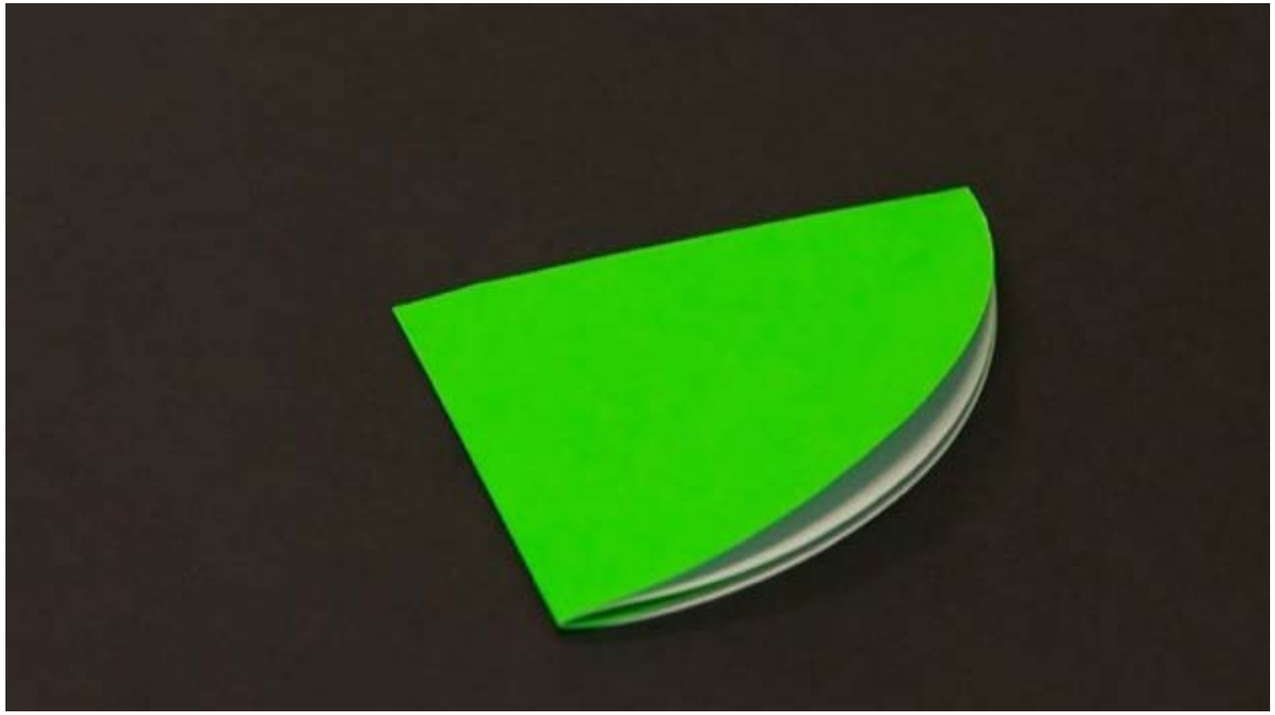
quadrant



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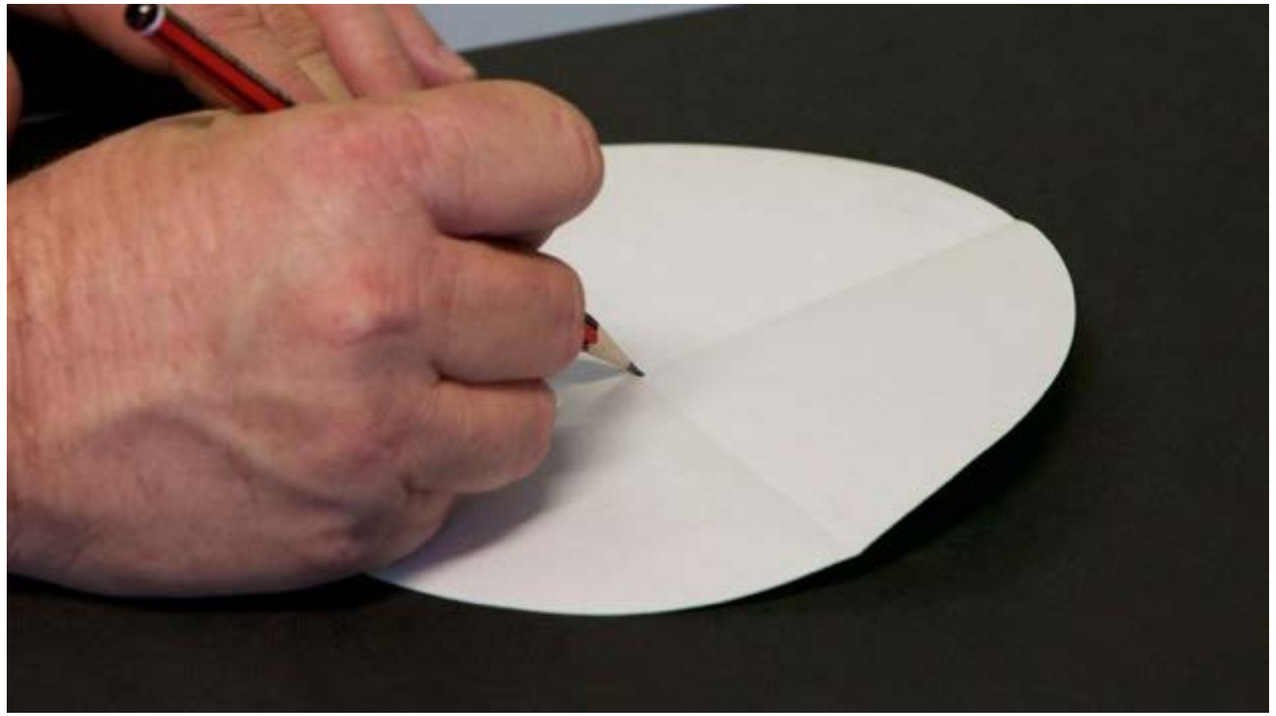
mark a dot in the exact centre



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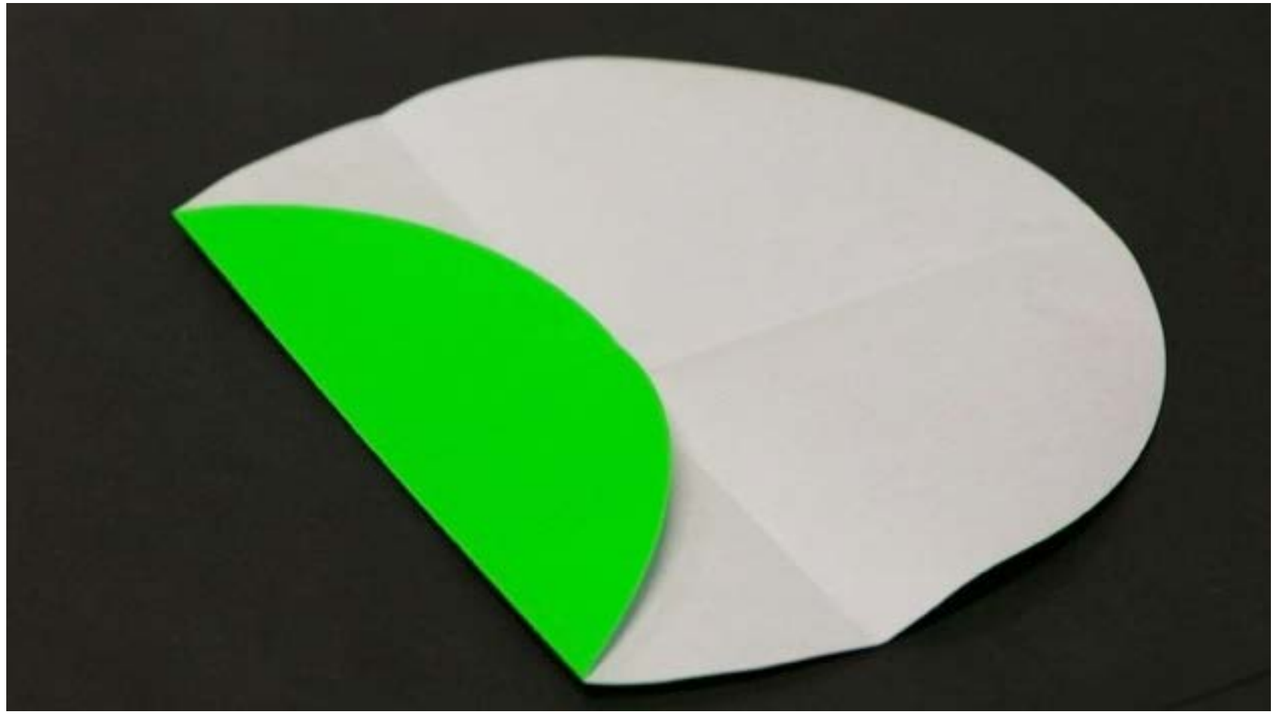
chord



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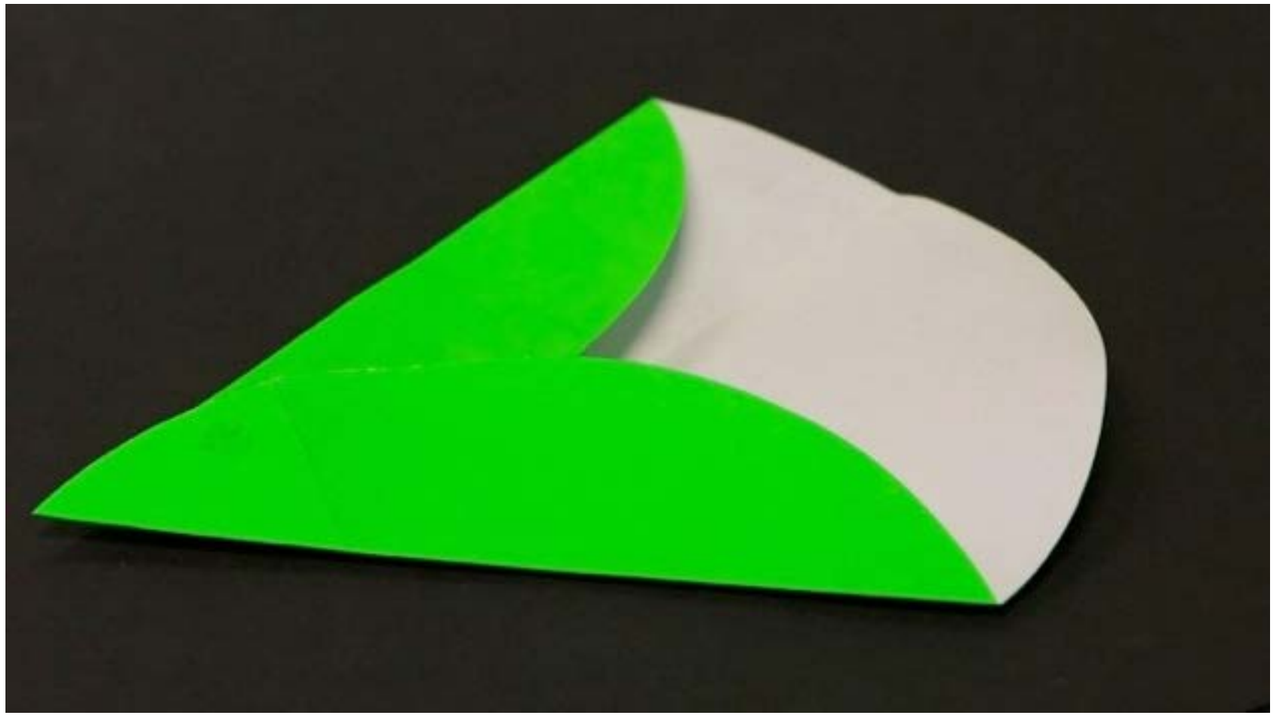
sector



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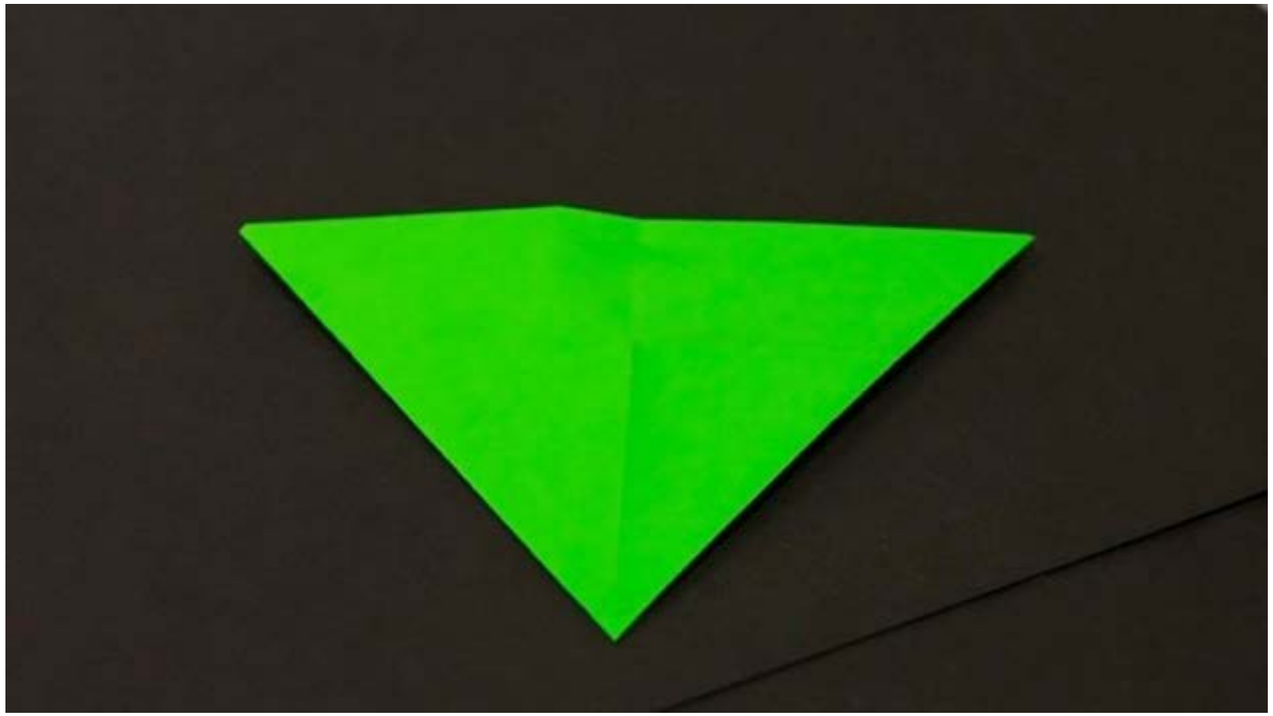
equilateral triangle



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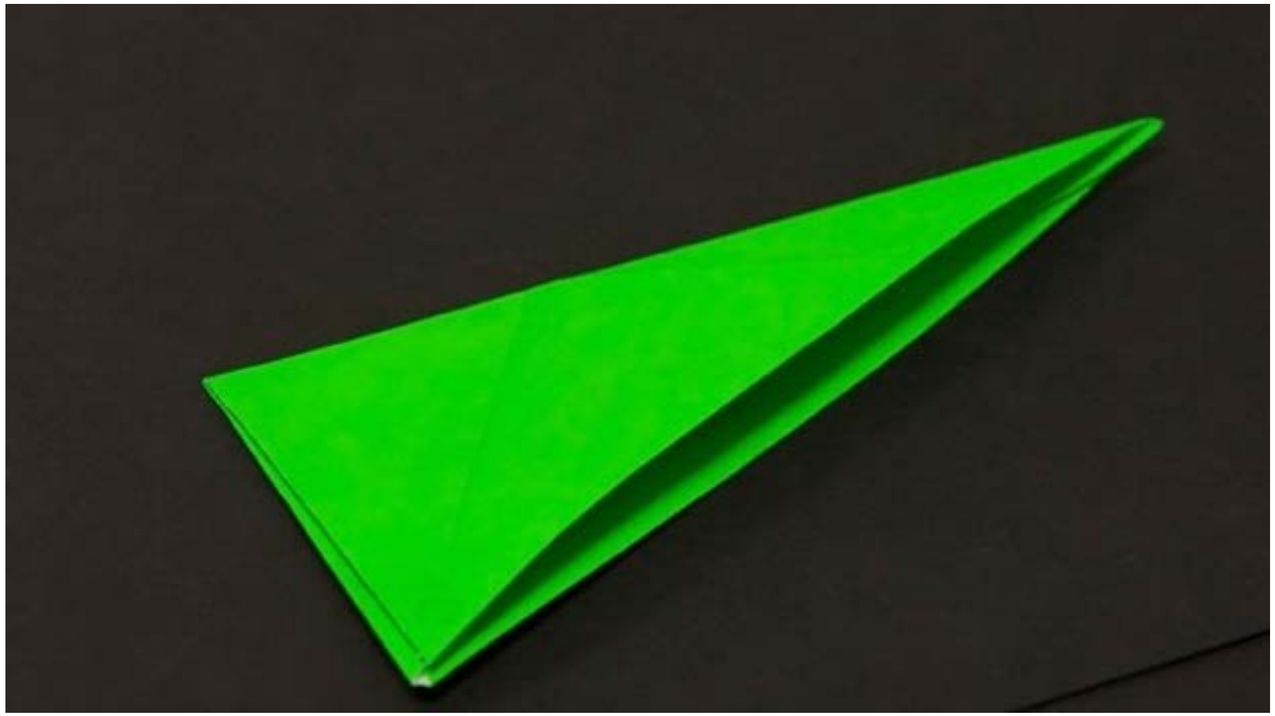
right-angled triangle



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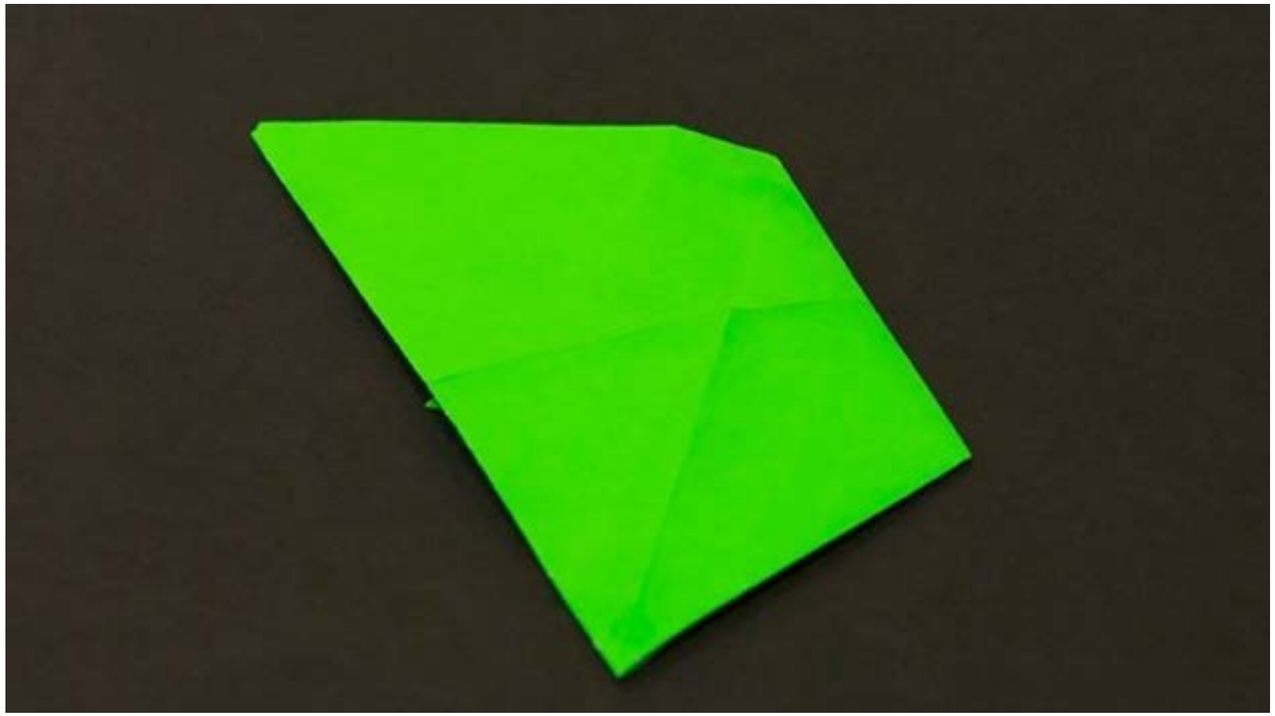
trapezium



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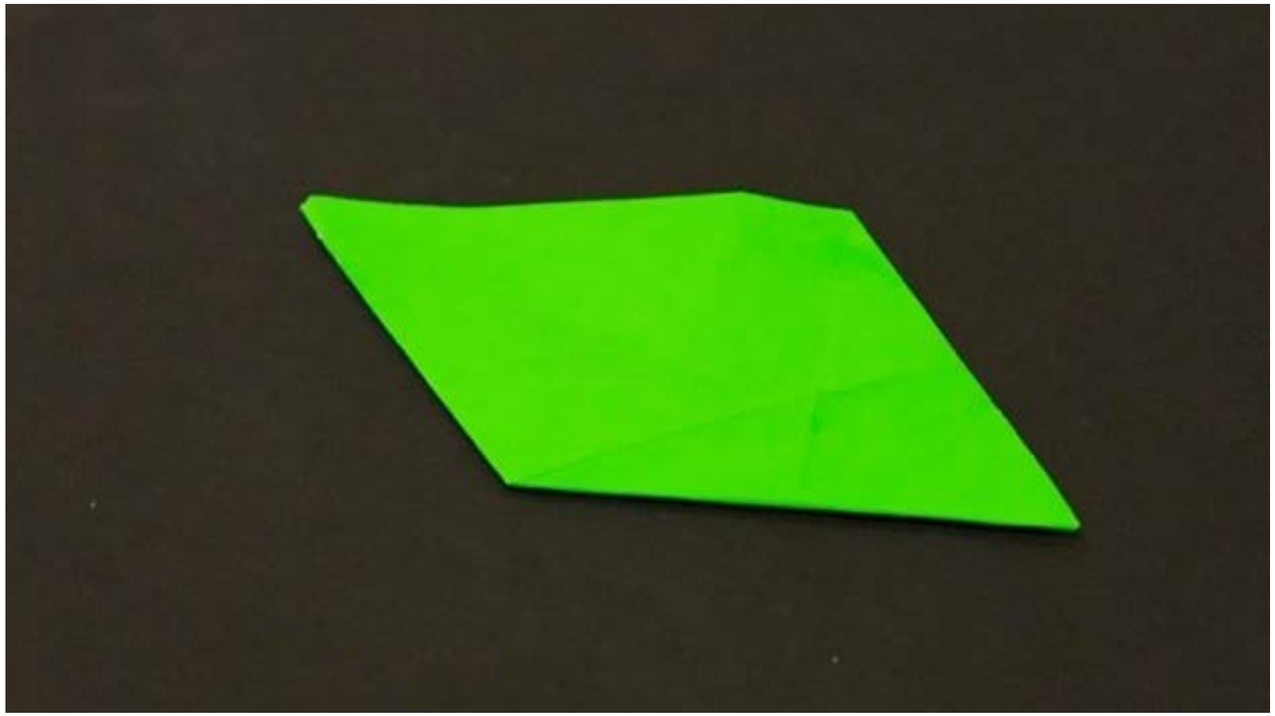
rhombus



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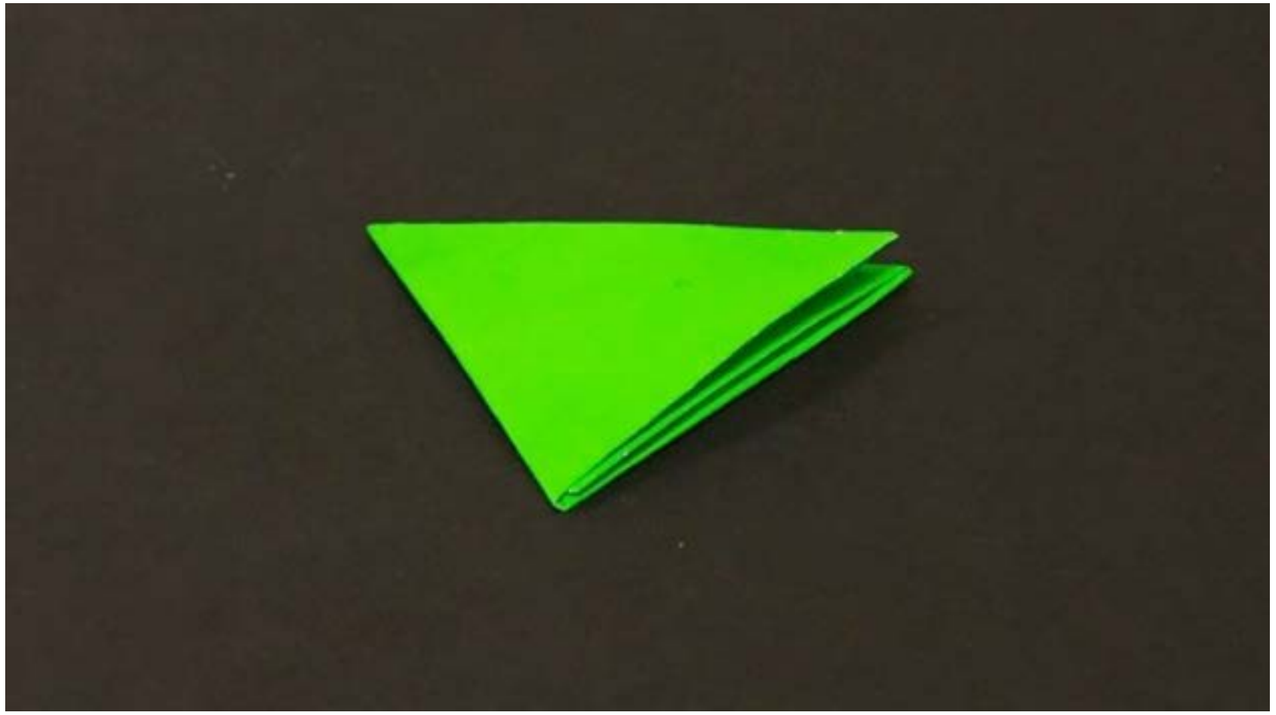
equilateral triangle



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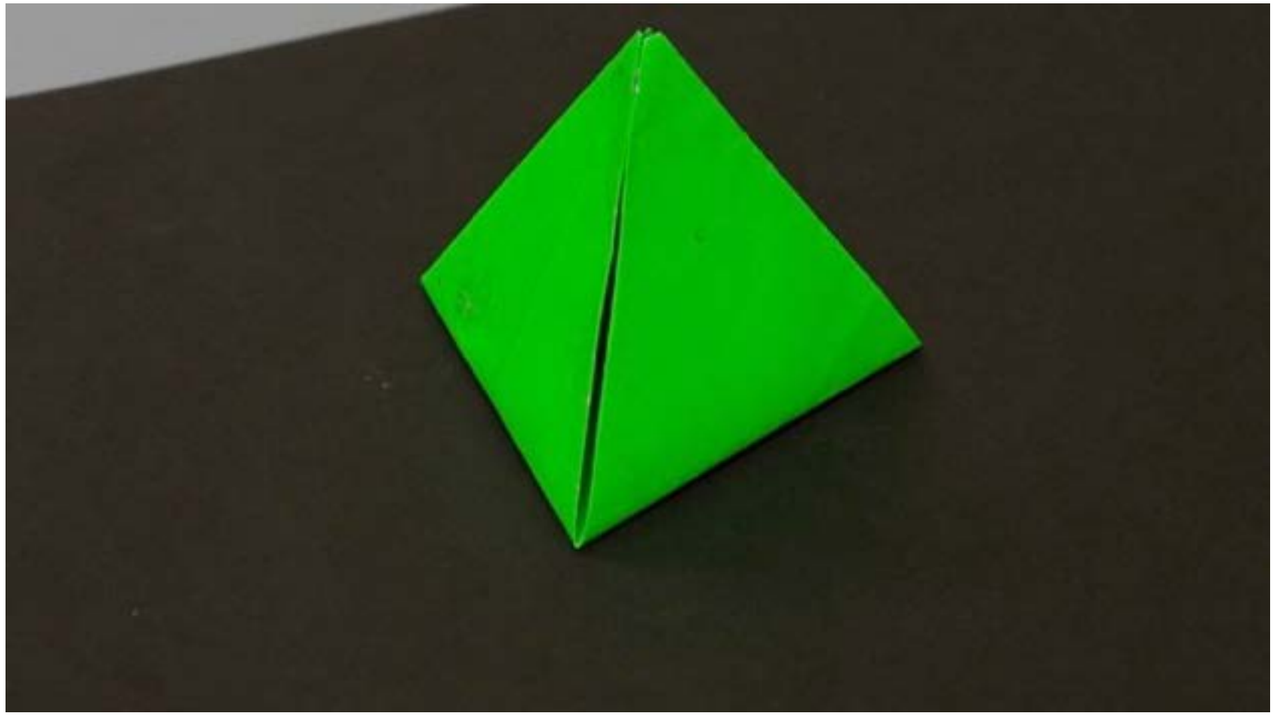
triangular based pyramid

tetrahedron



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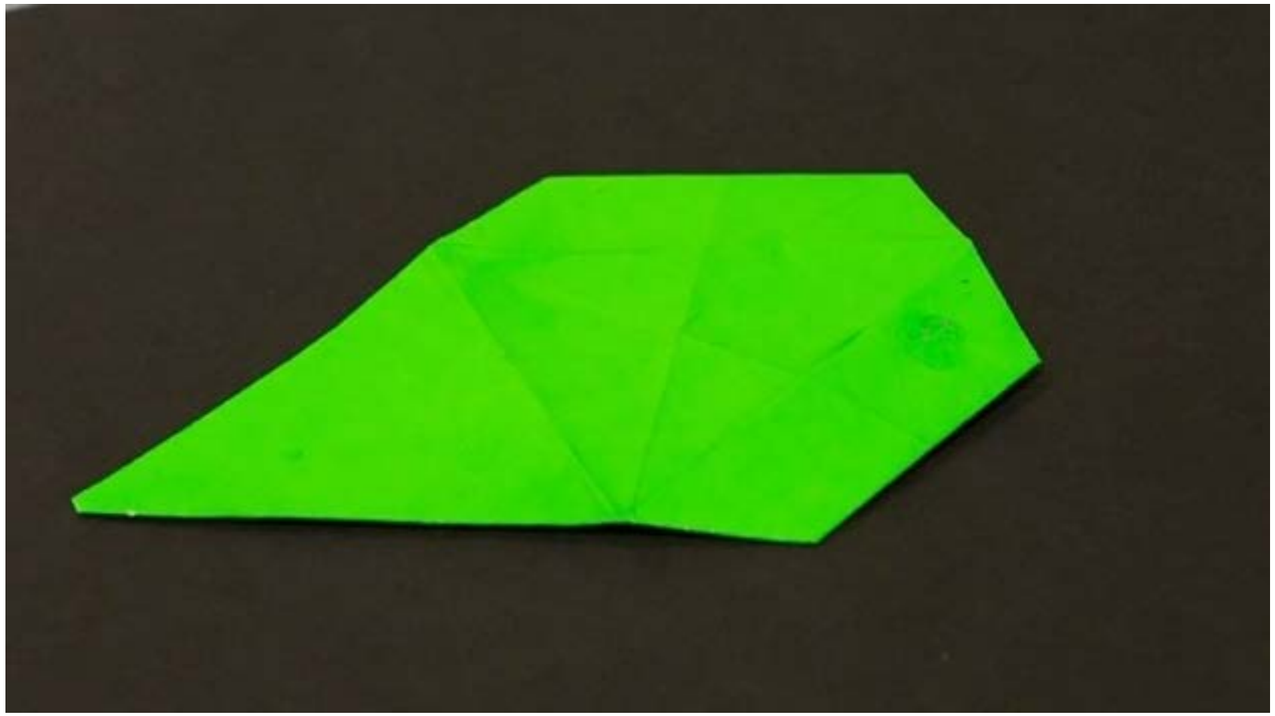
an irregular pentagon



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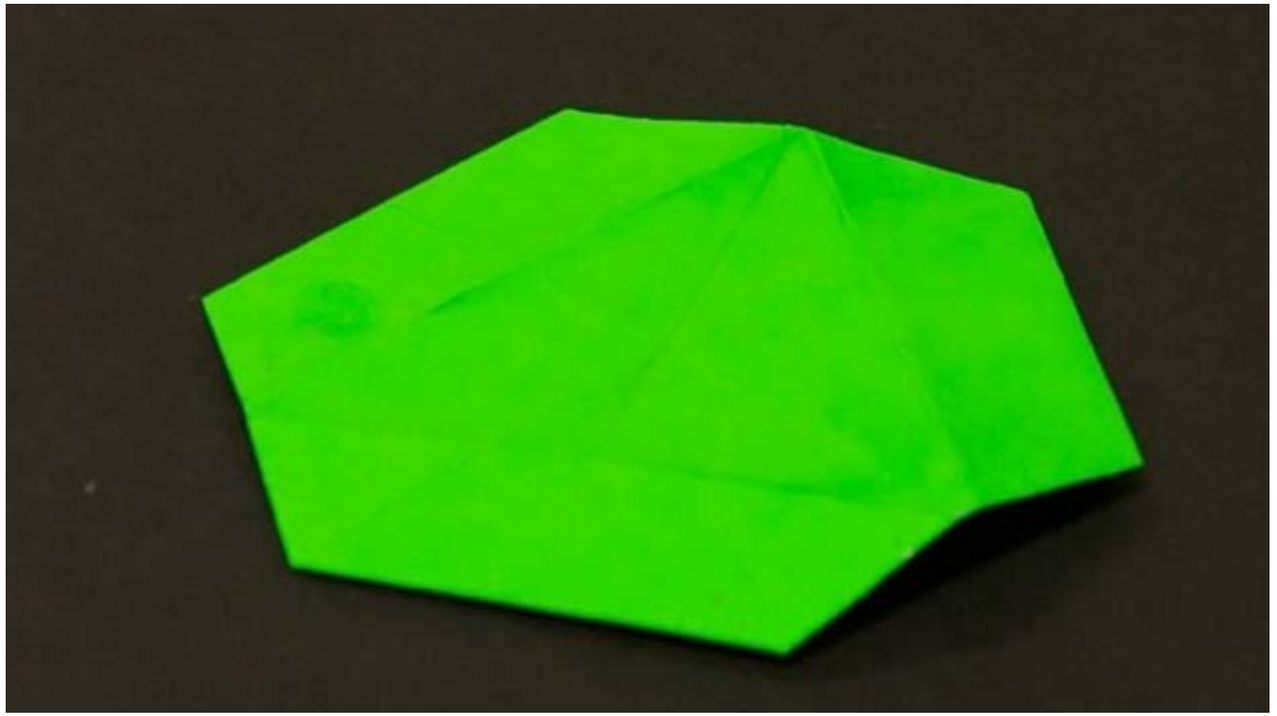
hexagon



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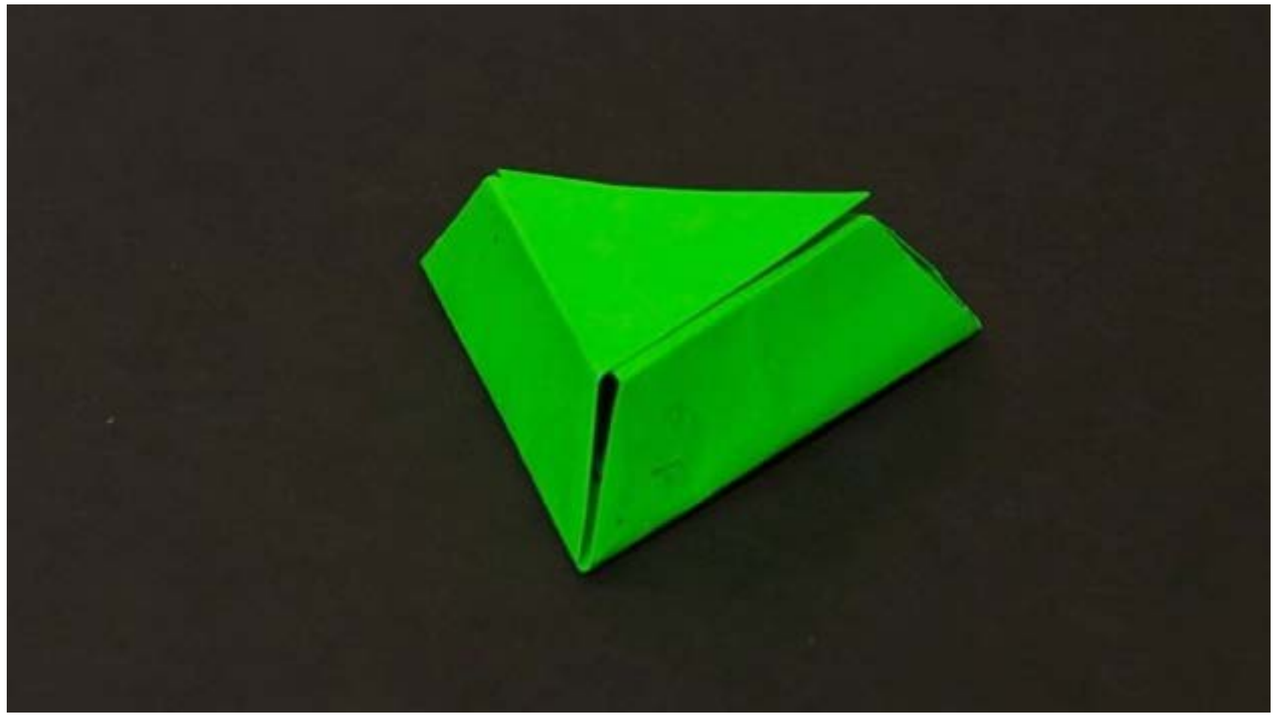
truncated tetrahedron



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1. create a trapezium but then fold back on crease

2. repeat with all corners

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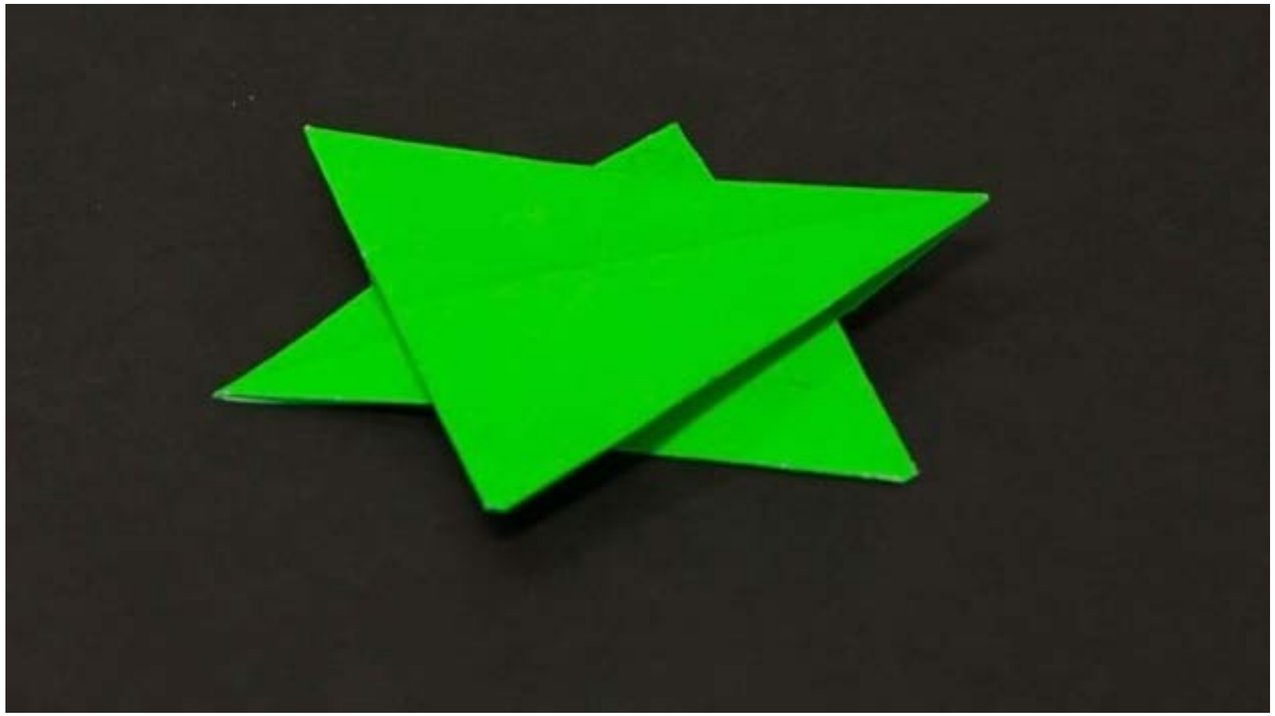
a six pointed star



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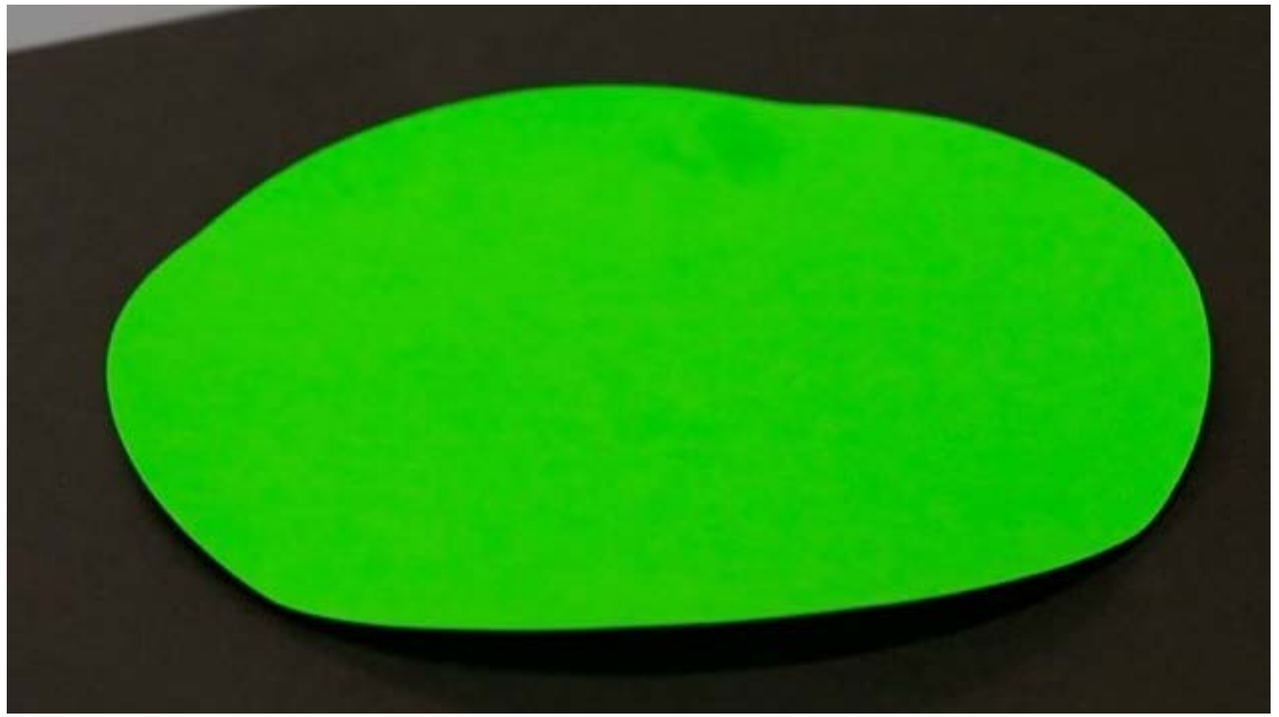
Where is the maths?

Take a few minutes to write down some of the mathematical properties *The Versatile Circle* will allow you to share with your students.



G.A.N.A.G.

G = State the GOALS (or standards) intended for the lesson

A = ACCESS prior knowledge that relates to lesson

N = Introduce NEW information or concepts

A = ANALYZE the new information or concepts

G = Restate the GOALS learned in the lesson

We already knew…
We remembered…
We used equipment…
We need to find out…
It was interesting when…
The tricky bit was…
We didn’t know that…
It was cool when…
The important thing to remember is…
A new word we learnt was…
Our group worked well when…
We discovered…
Congratulations to…
The strategy we used was…

Where’s the Maths?

We said…
We wrote…
We saw…
We heard…
We know…
We drew…
We said…
We asked…
We felt…
We liked…
We learnt…
We didn’t like…
We found out…