



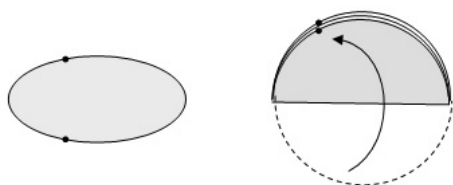
How To Fold Circles Too

Here are four fundamental folding activities

Anyone that can fold a paper plate in half can do this; four and five years old on up. Paper plates, masking tape and bobby pins are all that is necessary. There is no cutting or measuring, only proportional folding of the circle. This is a process about touching points. If the points are accurately placed together the creases will be exactly where they need to be. Use a hard straight edge to get a good folded crease, a ruler or folding stick will do. This will flatten the paper plate at the same time creasing the folds. Any kind of paper circle will do.

Fold in Half

Two points anywhere on the circumference of a circle when touched exactly together will fold the circle in half. This forms a diameter and two more points on the circumference. The diameter is creased perpendicular to and half way between the movement between the two points. This forms a tetrahedron pattern (4 points in space define a tetrahedron pattern of 6 lines of relationship defining 4 triangles.) This right angle movement is a 1:2 ratio; one Whole to two parts.



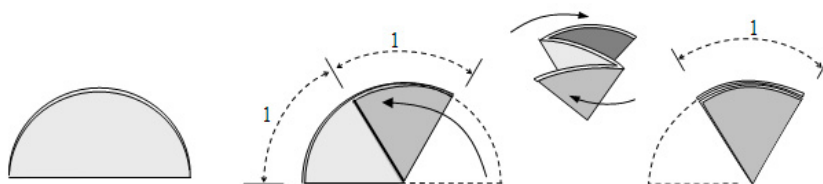
Fold circle in half by touching any two points on the circumference together and crease. Make sure points are touching before creasing.

There is too much information generated in this one fold to go into it here. Everything that happens in this first fold is principle to all subsequent folding of the circle and is basic to the functions and relationships fundamental to mathematics. This movement reflects spherical origin and the tetrahedron as pattern.

Three Diameters

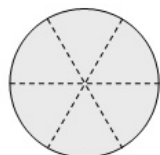
Fold the circle in half. Fold unfolded part behind. One fold is on top, one in the middle, and one on the bottom, like a "Z". This allows you to look at both sides to make adjustments in order to get both end points even, making the third point even. When the points are even then the edges and circumference will also be even. When all is even, give it a good strong crease.

Fold one corner point half way over on curved edge making 2 equal parts, in the ratio of 1:2. Don't measure! Use your eyes; they are made to see proportionally. Don't crease the folds yet.



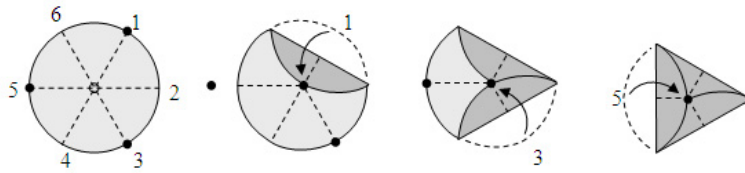
One folded forward, one folded to the back.

This folds the folded circle into thirds. Open it to find 3 diameters in a hexagon pattern of 7 points (6 end points on the circumference and one center point of intersection). There are 6 equally divided intervals. Folding circles is about spatial patterns and the intervals formed by the self-referencing movement of the circle. The three diameters are proportional directive for further folding, they are the root.



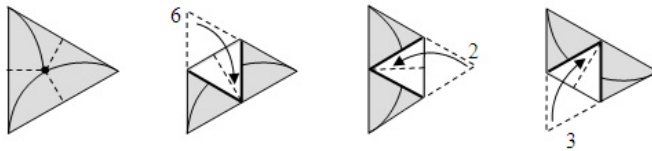
2. Make a Tetrahedron

Start with open circle and 3 diameters. Fold 3 alternate points on circumference (1, 3, 5) to the center point. (Be accurate in putting the points to the center point otherwise subsequent folds will not be accurate.) Crease well. This forms a 2-frequency equilateral triangle. Each edge length is divided in two equal parts.



Fold three alternate points to the center point and crease well.

Fold each end point of the triangle to the mid point on the opposite side. Do all 3 folds individually. Do not overlap these folds. Crease well each fold using a hard straight edge.



Fold each end point to the point on the opposite side and crease well. Do one at a time.

Bring end point together forming a tetrahedron. Tape full length along the edges to hold it together. This gives form to the tetrahedron pattern in the first fold.

