## Yin Yang: <br> Its History and <br> How to draw it



Here is the yin yang symbol. Sometimes it is shown as on the right with two small black and white circles.


Suppose you were designing a lesson plan about it. What would you put in it? Here are some questions you might answer about the symbol. Where did it originate? What does it symbolize? Where is it found, for example, in which cultures? Does it appear on any national flag? Can you find a good youtube video about it?


Now let's learn to draw it. You will need a compass, a ruler, a black marker, a pencil, an eraser, and a piece of paper or card stock. Draw a circle centered in the middle of the paper. A good radius is 4 inches. Be sure the center of the circle is marked.


Extend the radius across the circle to make a diameter, and using a ruler, mark the midpoints of the two sides of the diameter. Each dot will be 2 inches from the center of the circle, as you see above.


Set your compass radius to 2 inches. Put the compass point on the dot of the left radius, and make a half circle above the diameter. With the same compass radius, put the point on the 2 inch dot of the right radius and make a half circle below the radius.


This step is optional. If you want to make the two small circles, set your compass radius to about $3 / 4 \mathrm{inch}$, and draw two congruent circles centered at the points on the diameter 2 inches from the circumference.


Carefully erase the diameter and the dots.


Now it's time to color!


Extra credit 1. Let's pretend the yin yang is a chocolate and vanilla cookie. Your task is to divide the cookie into two contiguous parts (two separate pieces) so that each part has the same amount of chocolate and vanilla frosting (the same area). Can you do it? There are several solutions! You may turn in any you find for extra credit.


Extra credit 2. Can you make a 3-part yin yang? Here's a website showing how: https://web.nmsu.edu/~pbaggett/Lessons/vinyang/vinyang.html. You may make your own and turn it in for extra credit!


Extra credit 3. A four part yin yang for you to design, color, and cut out to form a jigsaw puzzle. You may make your own and turn it in for extra credit!
Can you show that each of the four shapes is exactly one fourth of the total area? If so, that will count as extra credit 4!


