In this activity you will use a compass and straight edge to complete a geometric construction of a Golden Spiral. Follow the instructions with the aid of the diagram below to complete the construction. Take care. Precision is the road to beauty.

1. Create a square about the width of your page using geometric construction as shown. To ensure you have a square and not a rhombus adjust the corners until the diagonals are equal.
2. Place your page in landscape position and then bisect the base using your compass.
3. Extend the base as shown in figure 3. Then place the point of your compass on the midpoint of the base and the pencil at the top right corner as shown. Mark off the the point where the arc intersects the extension of the base.
4. Repeat this procedure for the top of the square and complete the rectangle as shown in fig. 4. Satisfy yourself, using Pythagoras's theorem that this is the Golden Rectangle.
5. Draw an arc in the sand as shown in fig. 5. This is the first segment of your golden spiral.
6. Use the width of the small rectangle to locate the point marked 0 in diagram 6, and then draw an arc center on 0 as shown.
7. Repeat this process for 4 more steps, until you have created the golden spiral. Color in your spiral!