How to make a constellarium
A constellarium is a simple device used in teaching the shapes of various constellations. Get a cardboard or wood box and remove one end. Draw the shapes of various constellations on pieces of dark coloured cardboard large enough to cover the end of the box. Punch holes on the diagrams where the stars are located in the constellations. Place an electric lamp inside the box. When the lamp is turned on and various cards are placed over the end of the box, the constellations maybe seen clearly. Another way is to secure several tin cans into which an electric lamp will fit. Holes are punched in the bottoms of the cans to represent the stars in various constellations. When the lamp is placed inside a can and turned on, the light shows through the openings and shows the shape of the constellations.
How to make an umbrella planetarium
Since an umbrella has the shape of the inside of a sphere it can be used to illustrate portions of the heavens. Get an old large umbrella. With chalk mark the North Star, or Polaris next to the centre on the inside of the umbrella. Use a star map and mark the star positions for various constellations with crosses. When you have filled in all the polar constellations you can paste white stars made from gummed labels where the crosses are; or you may paint the stars in with white paint. Later you can make dotted lines with white paint or chalk to join the stars in a given constellation.