Clock Compass
Purpose: To demonstrate how a clock can be used as a compass.

Materials:
Scissors
Ruler
1 sheet of white paper
Pencil
12 x 12 inches (30 x 30 cm) cardboard
straight pin
Clock
Compass

Procedure:
• Cut a 6-inch (15-cm) diameter circle from the paper.
• Write numbers on the paper circle as they appear on a clock.
• Lay the paper circle in the center of the cardboard.
• Stick a straight pin vertically through the center of the paper circle and into the cardboard.
• Place the cardboard on an outside surface in direct sunlight.
• Turn the paper circle until the shadow of the pin falls on the correct time. Do not use daylight savings time.

Results: North will be halfway between the shadow and the number 12 on your paper clock.

NOTE: Use a compass to check the accuracy of your clock compass.

Why? This compass is most accurate March 21 and September 23 when the Sun rises in the east and sets in the west. On these dates, the shadow of the pin approaches due north as noon nears. At other times of the year, the clock compass loses accuracy, but the general direction of north can be found.