FOLLOW THE DRINKING GOURD
by
Jeanette Winter

This book was inspired by a simple folk song sung by slaves during the early years of slavery. The story goes that a one-legged sailor named Peg Leg Joe traveled from farm to farm working as a handyman during the day and teaching slaves a folk song in the evenings. Its lyrics contained directions for a trail known as the Underground Railroad. The words shared the key to a secret map; if they "followed the drinking gourd", they would be traveling north to freedom.

The drinking gourd is the Big Dipper. The pointer star at the end of the gourd or dipper points to the North Star. If you find the Big Dipper in the night sky, you can easily find the North Star. Make a fist and hold it above your head so that it is right next to the pointer star. Move your fist in five steps to the right; you will stop on the North Star.

The position of the Big Dipper in the night sky can be used to tell time. By making a star clock, you will have a method of finding the Dipper at night or using the placement of the dipper to determine what time it is. This clock works successfully anywhere in the Northern Hemisphere; I have used it in Russia, Lithuania, Mexico, and Costa Rica. The clock can also be used to tell the seasons (see Teacher notes).

MATERIALS: star clock pattern, manila folders or cardstock, scissors, paper
fasteners, glue sticks.

ACTIVITY: Copy the star clock pattern on card stock or have the students glue the paper copy to a manila folder and cut out. This will give the two pieces of the clock some stability. Follow the directions on the pattern and make a star clock. The students will experiment with the star clock at home. They must be able to find north; remind them that the sun sets in the west. If they know which direction west is at home, they will be able to face north when they go outside at night. The first step is to put the correct time in the window of the clock. As they face north, the position of the Big Dipper should match its position on the clock.

TEACHER NOTES:
- To use the clock to show the seasons, put 10 pm in the window. Then hold the clock, facing north, with the months of March, April, and May at the top. The

Dipper is upside down pouring water, snow or rain, on the earth; it is spring and the earth is preparing for the summer growing season. Now hold the clock with July, August, and September on the top. The Dipper is catching the rain water to prepare the earth for fall and winter.

- If you were born at night, your parents could have used Polaris, the North Star, and a star clock to tell the exact time of your birth (assuming they could look at the night sky from anywhere north of the equator). They would have used circumpolar stars which are visible all night long throughout the year. Because of your latitude, never seem to rise or set but travel counterclockwise through the night. Circumpolar stars are part of circumpolar constellations. The two easiest ones to see in the Northern Hemisphere are Cassiopeia (the Queen) and Ursa Major (Great Bear). The Big Dipper makes up the part of Ursa Major with which you are familiar. Debra Frasier has written a beautiful book called On the Day That You Were Born. Each page describes a special event that could have happened on your special day.

STANDARDS:
BSL: 4.1, 12.1
NCTM: 1a, 1 b, 3d, 4a, 4b, 4d, 4e, 6a, 6d, 10a, 13a
SCS: A1, B2, D2, H3

Winter, Jeanette. Follow the Drinking Gourd. Alfred A. Knopf, New York, 1988. ISBN#0-394-89694-7.
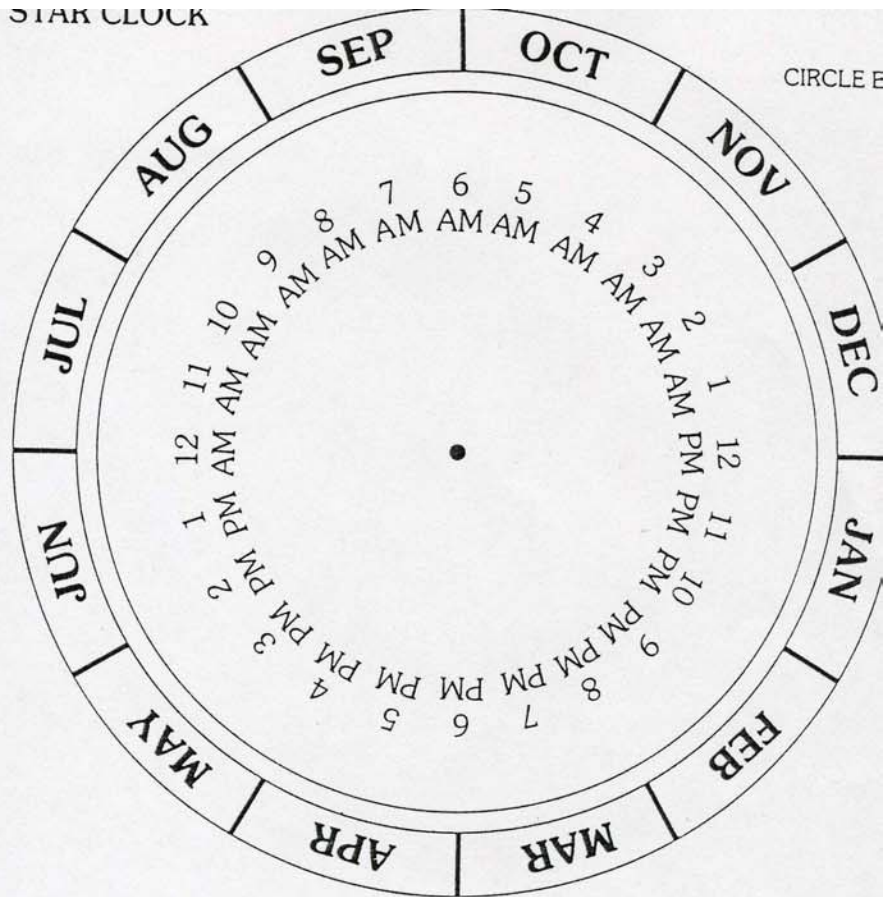
Star Clock Directions:

1. Cut out Circle A + Circle B. Cut out window on Circle A.
2. Push paper fastener through the center of both circles (Circle A center is North Star; Circle B center is black dot.
3. Go outside on a clear night and face north.
4. Hold your clock so that the correct month is at the top of Circle B
5. Move the inner Circle A until the 2 dippers and Cassiopeia are oriented in the same way as they are in the sky. Don't turn outer circle.

+ If you are on Daylight Saving Time, you must add one hour to the time in the window.

CIRCLE B

CIRCLE A

RANGER RICK'S NATURESCOPE: ASTRONOMY ADVENTURES