

9:00 Circle: DO STARS REALLY TWINKLE? Sing Twinkle, Twinkle, Little Star. The stars are far away suns like our sun. Most stars are shining with a steady light. The movement of air in Earth's atmosphere causes the starlight to get bent as it travels through the atmosphere down to us. This means that some of the light reaches us directly and some gets bent away. To our eyes, this makes the star seem to twinkle. Another theory or in combination with this is that not enough light hits the rods in our eyes and the stars look like they are twinkling when really they are not.

YOGA: **Star Pose** (See Yoga Pose #35.)

WHAT IS A CONSTELLATION? People long ago played connect the dots with the stars to make pictures in the sky. These are the constellations we know today. The brightest star in our night sky is Sirius in the constellation The Big Dog. The brightest star in our daytime sky is our Sun.

Read *Stars* or *Stars and Galaxies* or *Where Are the Stars During the Day?* or *Stargazers*

### CONSTELLATION CONNECT THE DOTS      CONSTELLATION CARDS

ART: Constellation crayon melt

11:45 Circle: Do Touching Stars and Falling Stars circle exercises. See page 15.

**SILENCE GAME**, then, in the silence, whisper "In nature we find silence- the stars, the moon, and the sun move in silence," a quote from Mother Teresa. Whisper names to wash hands for lunch.

Story Time- *Draw Me a Star*

3:00 Circle: THE BIG AND LITTLE DIPPERS Read *The Big Dipper* or *The Starry Sky Collection*.

The big dipper is a part of the constellation Ursa Major or The Great Bear. The Little Dipper is part of Ursa Minor or Little Bear. (Make a black shade with pin holes to let light through. In a darkened room or closet, use a lamp or strong flashlight to show both dippers on the ceiling.) The North Star, or Polaris, is the end star in the handle of the Little Dipper. Because the north pole is spinning in one place, and Polaris is over it, it is the only star that appears to stay in one place in our sky. Polaris is actually more true in finding north than using a compass. For many years people have used the north star to find the directions. See also *Follow the Drinking Gourd*.

### PLACING THE FOUR DIRECTIONS USING POLARIS (G)

### PUMPKIN RUBBER STAMP STAIR (M)

### ASSEMBLING A FLASHLIGHT / NIGHT SKY

### ALASKA STATE FLAG COLORING

Constellation Connect the Dots- On paper make dots in the formation of some of the constellations such as The Big Dog and The Great Bear. Number the dots. Lesson- Connect the dots in sequence.  
Night Sky- Do hole punching work using a constellation. Assemble the flashlight (p.150). Take the punching work and flashlight to a dark room or closet. Shine the flashlight up to the ceiling with the punched hole pattern over it to resemble the night sky.

Alaska State Flag- eight gold stars forming the Big Dipper and the North Star on a dark blue field

Placing the Four Directions using Polaris- See Instructions: Geography at the back of this guide.

Note- For use in the southern hemisphere see Instructions: Geography at the back of this guide.

Note- The two stars at the end of the cup of the Big Dipper are called "Pointer Stars" because a line drawn between them points up from the cup to Polaris in the Little Dipper. The northern axis of the earth points to Polaris. (If standing on the north pole Polaris would be straight up.) When facing toward Polaris you are facing the North Pole, or true north. This is why the North Star is also called the Polestar or Polaris.

How to find the North Star / Polaris:

- 1) Find the Big Dipper (if you live where you can see it)
- 2) Find the two stars that make the end of the cup of the dipper.
- 3) These two stars point upward from the cup to the end of the handle of the Little Dipper.
- 4) The star at the end of the handle is the North Star. (It is not the brightest and is hard to see.)