How to find the Big Dipper with a seven-year-old

Peabody blog · Science · updated 2026-10-30

Face north, find seven stars shaped like a saucepan, then hop from the two pointer stars to the North Star. A two-step sky lesson that works from a town.

To find the Big Dipper, face north after dark and look for seven bright stars in the shape of a saucepan or a ladle: four make the bowl and three make a bent handle. Then take the two stars at the end of the bowl, away from the handle, and follow the line through them about five times the gap between them. The star you reach, on its own and not very bright, is the North Star, Polaris. Peabody's guide How to find the Big Dipper, and from it the North Star has the same two hops, and this post adds how to do it with a seven-year-old.

Before you go out

Work out which way is north from your back step in daylight. The Sun sets roughly in the west; with your left hand pointing there, you're facing north. Put a sticker on the door frame or a stone in the yard so you can find it again in the dark.

Then pick the time. The Big Dipper never sets from most of the United States; it circles the North Star all night, all year. But in autumn and early winter evenings it swings low, close to the northern horizon, where trees and roofs can hide it. In spring and summer evenings it's high, almost overhead. If it's hidden at bedtime this time of year, a look before school, when it has climbed, often works.

Hop one: the saucepan

Outside, give eyes a few minutes away from screens. Then ask your child to look for "a saucepan made of stars". Its seven stars are all about the same brightness, so the shape stands out even from a town with streetlights.

One way in: give your child the job of spotting the handle. Once they've got the bent line of three, the bowl is right there.

The Big Dipper isn't a whole constellation. It's the brightest part of a bigger one called Ursa Major. That's a good fact for a child to say back to you.

Hop two: the pointers

The two stars at the outer edge of the bowl are called the pointers. Draw an imaginary line from the bottom one through the top one and keep going, out of the top of the bowl. About five of those gaps along there's a star on its own: Polaris.

Hold up a hand to help. Measure the gap between the pointers in fingers at arm's length, then count five of those gaps along. It's further than it feels: keep going past where you think you

should stop.

Why the North Star matters

Polaris surprises people: it isn't the brightest star in the sky, not even close. It's famous because it hardly moves. Earth's axis points almost straight at it, so every other star seems to turn around it through the night.

It also tells you where you are. How high it sits above the horizon matches your latitude. In Denver, about 40° north, it's four fists up; in Miami, about 26°, between two and three; in Anchorage, about 61°, six. A child who measures it with their fists is doing real navigation.

Polaris is also the end of the handle of the Little Dipper, a fainter, smaller ladle that needs a darker sky.

Make it a game

1. First to the handle wins the spotting.
2. Fists to the North Star: count how many fists up it is. Check again next month: it hasn't moved.
3. Draw it. Seven dots and a line, then an arrow to Polaris. Pin it up and look again in three months, when the saucepan has turned.

Three questions grown-ups ask

Do we need a dark place? No. The seven stars of the Dipper show from most towns. The Little Dipper is the one that needs real dark.

Why does it look different every time? It turns around the North Star once a day, so it can be upright, on its side or upside down depending on the hour and the month.

What comes next? In January, Orion is the other easy shape: three stars in a row. And the Quadrantids on 3–4 January come from just below the Big Dipper's handle.

Peabody (peabody.kids) is free through the end of 2026, with no ads and no sign-up. Back inside, the library has stories at your child's reading level.

Sources

- Peabody's guide, How to find the Big Dipper, and from it the North Star: the pointers, Polaris's height by city, and when the Dipper is low.
- NASA, what's up in the sky.

Free at peabody.kids/blog/how-to-find-the-big-dipper