



# Star light. Star bright.



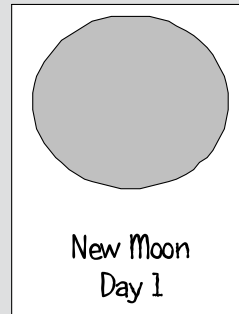
## The first star I see tonight...



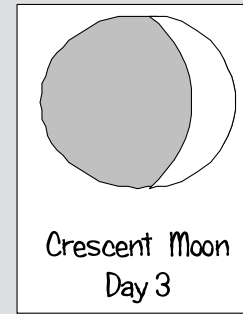
Stargazing is something that humans have done for thousands of years. And why not? There are all sorts of cool things up there in the night sky for us to check out. Here are just a few of the amazing things you might see on a dark night!



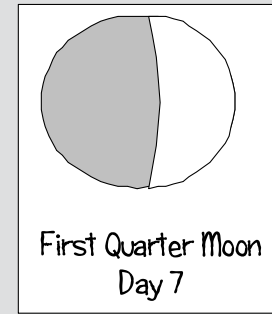
### The Phases of the Moon



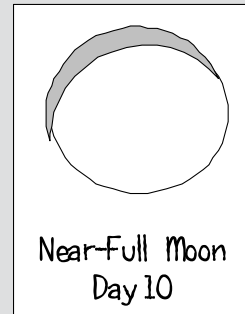
New Moon  
Day 1



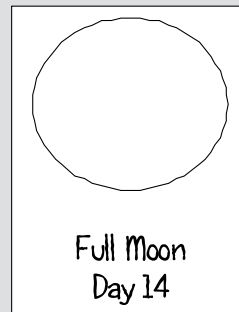
Crescent Moon  
Day 3



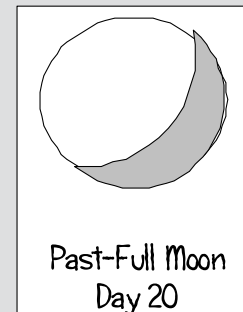
First Quarter Moon  
Day 7



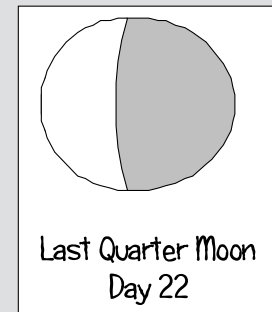
Near-Full Moon  
Day 10



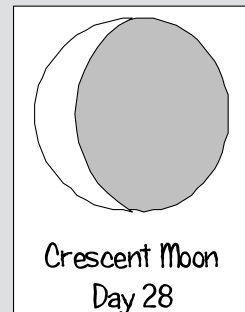
Full Moon  
Day 14



Past-Full Moon  
Day 20



Last Quarter Moon  
Day 22



Crescent Moon  
Day 28

### Orion or The Hunter



You can keep a page in your nature journal for stargazing, too. By keeping track of the things you see in the night sky at different times of the year you'll be doing just what ancient peoples did....that's how they invented the calendar! ----->



# Star light. Star bright. The first star I see tonight...



When you look up at the night sky, do you think all of the stars look white? Nope! Some of them look reddish and some look more bluish. Did you know that the color of a star tells us how hot it is? It turns out that the bluer a star is, the hotter! Can you spot stars that are red or some that are blue? Here are a few more easy outdoor activities to get you star gazing tonight!

## Tools:

Night sky gazing is a great activity that can be done with just a few tools! You might even want to keep track of the different phases of the moon and the other neat things you see in the night sky at different times of the year.

Here's what you'll need:

- \*An Observation Sheet (print a ready-to-use one from the Kids in Parks webpage)
- \*A pencil
- \*A flashlight and some red cellophane to tape over the top (so you can see what you're writing down without interfering with your night vision!)
- \*A pair of binoculars (to see the surface of the moon better!)

## Activity Ideas:

\*On a clear summer night when the moon is not full (when the moon is full, it brightens the night sky too much to be able to see the stars really well!), find a nice quiet spot to sit. Try to be as far away from the lights of your house or from the street lights. Look for a really wide band of stars in the sky that runs from north to south...this is the Milky Way! Do you see a glowing orange star at the southern edge of the Milky Way? That's the supergiant star Antares, which is actually 700 times larger than our sun!

\*Now try to find the North Star. It is a bright star in the night skies of the Northern Hemisphere. If you were to watch the North Star all night long, the other stars would appear to float in an arc around it. This motion is because the Earth rotates one full circle each day underneath the North Star.

\*On a night when the moon is full, go back to your quiet spot. Sit very still for a few minutes. Listen very closely. What do you hear? Do you think that animals are more active on a bright night when the moon is full?

## Night Sky Fast Facts:

\*Sirius is the brightest star in the sky, but it can only be seen for part of the year. Sirius is in the constellation Canis Major, which means 'great dog' in Latin.

\*If you were traveling by car, it would take you over 130 days to get to the moon but only 1.5 seconds if you were traveling at the speed of light!

\*There is a bunch of man-made stuff traveling above our heads in Earth's orbit including over 3,000 satellites!

\*Astronomers estimate that there are over 250 billion stars in our galaxy alone! They also think that there are 100 billion other galaxies in the universe.



# Nature Journal Observation Sheet

Your Name: Keith

Today's Date: July 10, 2008

Your Location: Lake Tahoe

## Describe the weather:

It was really hot today but now that it is night-time, it is kind of cold. The sky is really clear.

## What do you see around you?

Even though it is night-time, I can see lots of things around me because the moon is full and really bright. Everything is making really big shadows on the ground. Up in the sky there are tons of stars! The moon looks huge! It is kind of yellowish. My brother pointed out the big and little dippers to me, too.

## What do you hear?

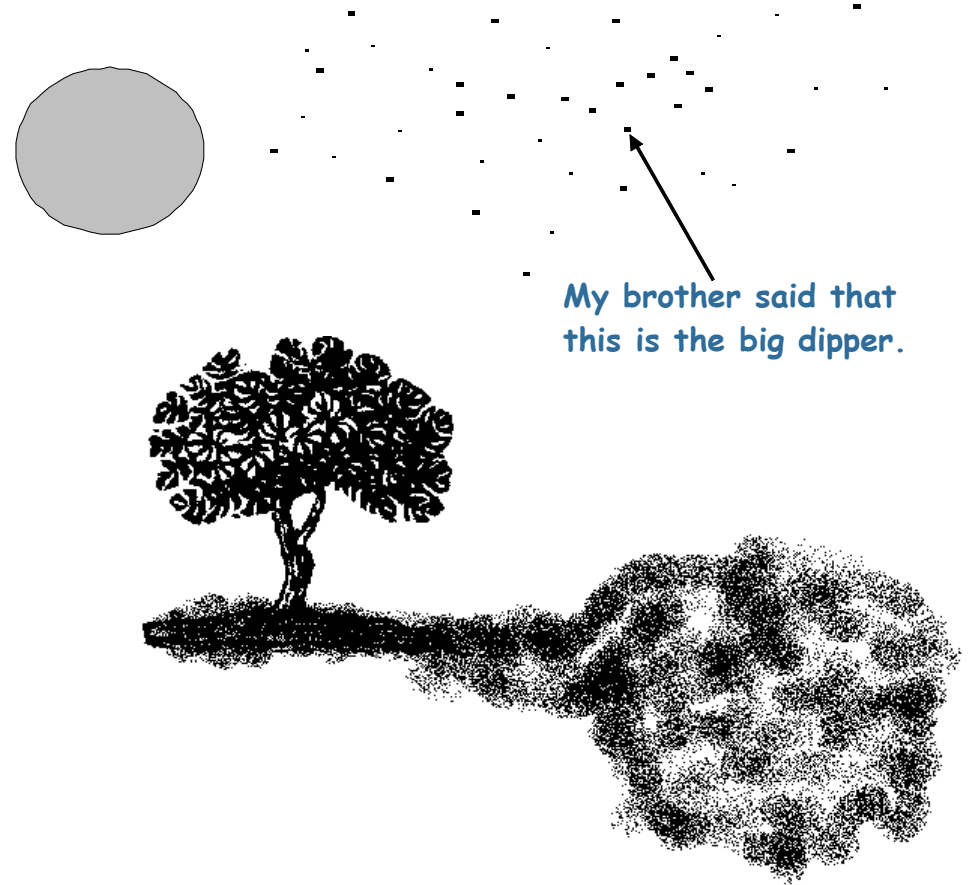
I hear frogs or crickets kind of chirping. And every now and then I hear an owl hooting...he sounds kind of far away.

## What do you smell?

Even though the air is cool, everything smells kind of warm, because it is summer-time and the sun was really bright and warm today.

Choose something to study...a bird, a bug, a mammal, a plant. Describe it in as much detail as you can here and then sketch it.

I am looking at all of the cool shadows that things are making on the ground. The moon is full and is really bright so it is shining on things and making the shadows behind things. This is the tree in front of our house and the shadow the moon is making of the tree.



My brother said that this is the big dipper.