LOOK UP! A SKYWATCHER'S COMPANION

ADLER



When you look at our sky, what do you see?

Maybe you find a muse for an epic story in the stars or inspiration for a sketchbook in the rings of Saturn. You might look at the Moon and feel the pull of history (how did we get there?) or rise to a challenge of the future.

WHERE WILL WE GO NEXT?

When different kinds of people explore together, our picture of the Universe is richer. Every new invention and discovery, every piece of art, every puzzle solved, every impossible dream gives us a new perspective on our home in the cosmos. However you connect the dots, we hope you'll join us at the museum and in your community for another great year of looking up.

CREATE SOMETHING BEAUTIFUL.

If the vivid colors of an autumn sunset, the stark beauty of a Martian mountain range, or the distinctive swirl of the Milky Way moves you to make art, you're in good company. Our sky and everything in it has long been a muse for painters, poets, musicians, writers, photographers, and filmmakers.

TRY IT: SKETCH THE MOON.

Every day for a week, sketch the Moon and your surroundings. Try to sketch at the same time of day or night and from the same spot, but don't look at your sketches from the previous days until the end of the week.

Start from scratch every day. At the end of the week, notice how your drawings changed, how you noticed different things about the Moon and about your environment each day. Maybe on Monday, you lost yourself in the light and shadows on the lunar surface, and on Wednesday you focused on tree branches blowing in the wind.



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MOON FACT: All the world's cities could fit inside the biggest crater on the Moon. The Moon's largest crater, the South Pole-Aitken basin, has a surface area of approximately 1.77 million square miles.

NAY 2

MOON FACT: Footprints on the Moon will last for thousands of years. There's no wind or weather on the Moon to wash away the impressions of Apollo astronauts' boots, so they'll be there for a while.

DAY 4

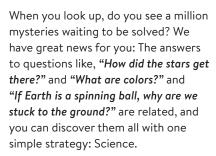
DAY 3

MOON FACT: The ancient Greeks knew the Earth was round when they saw its shadow on the Moon. It wasn't their only piece of evidence, but it was a good one.

How did the shape of the Moon change in your drawings?

What else is different? Did your mood or the weather change how you saw the Moon or your surroundings?

FIGURE IT OUT.



TRY IT: FIND A PROBLEM AND TRY TO SOLVE IT.

Identify the problem. "I lost my favorite NASA t-shirt!" Develop a hypothesis and test it out. "I walked through my bedroom, but I didn't open the closet. Maybe I left the t-shirt on my bed." Record the steps you took. "I looked on my bed. My t-shirt was not there." Did you solve the problem? If not, what else could you try? "Where else did I go before I realized my t-shirt was missing?"

This is something we all do every day, and it is exactly how scientists work. Try it for yourself below!

1	THE PROBLEM:
2	HYPOTHESIS:
3	RECORD STEPS:
4	RESULTS:

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Sometimes the process is

sometimes we're not sure how our t-shirt ended up behind the TV, and sometimes we're surprised to find something we weren't looking for in the first place, but over time, thinking this way gets us

CLOSER TO THE TRUTH.

It's how we've cured diseases, walked on the Moon, and solved countless mysteries on Earth and in space.

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INVENT WHAT YOU NEED.

What do you do when your senses can't tell you everything you want to know about your place in space?

Build something that will!

Incredible inventions like sundials, astrolabes, spacesuits, and telescopes give people superpowers—ways to see more stars than a human eye ever could, know the time of day with great precision, breathe in space, and orient themselves on our planet using clues from the sky.

Some inventions do more than help us learn about the sky—they save lives!

After an oxygen tank exploded on NASA's Apollo 13 spacecraft, the flight crew and engineers on the ground had to design an air filter using only the materials on board, and they had to work fast.

The onboard troubleshooting manual didn't have any tips for dealing with explosions, but it did have a nice cardboard cover that became an important piece of the air filter that helped bring the crew home safely. You can see that manual—minus the cover—in the Adler's Mission Moon exhibition.

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TRY IT: **CREATE SOMETHING NEW.**

You don't have to be an engineer to create something. Look around you and try to see familiar objects in a new way. If a notebook cover can save a life, what else could it do? What could you build to solve a problem at home?

TAKE NOTES:						

SKETCH YOUR IDEAS.

TRY IT OUT. **HOW DID IT GO?**

IMAGINE WHAT'S NEXT. Attention, daydreamers: The sky is a great place to get lost in your imagination! Before there were astronauts, before rockets or computers or oxygen tanks, someone like you saw a big white circle in the sky and wondered what it would look like up close. That strange, impossible idea—that our Moon was a place people could touch—captivated generations of stargazers. Together, they made it possible to send people to the Moon. Where will we go next? We need you to imagine it.

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TRY IT: MAKE TIME TO DAYDREAM.

Take yourself to a quiet (or loud) place, turn off your phone, and let your mind wander wherever it wants to go, from the end of your street to the surface of our Moon and beyond. What do you wonder about? Keep a journal of your questions and ideas.

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