BRIGHT IDEAS FOR DARK SKIES

STARGAZING

FAMILY ACTIVITY GUIDE

Photo: Night sky over Locomotive Rock in Bluff, Utah



https://bluffutah.org ©Business Owners of Bluff 2024



STARGAZING

Use this guide to plan your trip and make the most of your time under the stars.



Bluff, Utah, with its rural setting, small population, numerous clear nights, and pristine dark skies offers a fantastic stargazing experience. On most clear nights, you can see the Milky Way with the naked eye.

Plus, Bluff is nestled among three, certified International Dark Sky Parks, enhancing its appeal as a top stargazing spot.

If you're new to stargazing, there's a bit of a learning curve, but we've made it easier for you. In this guide, you'll find helpful information for beginners, including the best spots to visit, the ideal times to go, online resources, and what essentials to pack. Our goal is to simplify your planning and ensure your stargazing adventure is truly exceptional.

Do a bit of planning, check the optimal conditions, pack your essentials, and head out for a magical night under the stars.

Happy stargazing!

YOUR ROADMAP TO STELLAR STARGAZING 5 Essential Planning Steps

2

3

STEP 2: WHAT TO PACK

Pack warm clothes, blankets, chairs, flashlights, and snacks to stay comfortable and cozy.

STEP 4: USE APPS & RESOURCES

Accelerate your learning curve with tools and information that quickly teach you about the Night Sky.

5

STEP 1: WHEN TO GO

Stargaze year-round, but check moon phases, weather, and stargazing events for the best experience.

STEP 3: WHERE TO GO

Head to the pristine dark skies of Bluff, Utah or a nearby International Dark Sky Park.

STEP 5: ASTROPHOTOGRAPHY

Discover tips on how to take great nighttime photos with your phone.

1. WHEN TO GO

Consider the following conditions and events when planning your trip.

THE SEASON

You can stargaze throughout the year. But, Milky Way Season (best visibility) is mid-March through mid-October. Astronomers also call this Viewing the Galactic Core. Peak dates are summer months.

WEATHER FORECAST

You'll want clear skies for stargazing. Check online resources for opaque cloud coverage.

STARGAZING EVENTS

Nearby Dark Sky Parks sometimes offer ranger-led stargazing events.

THE MOON PHASE

For optimal viewing, plan your trip during a New Moon or when the moon is in its waxing or waning crescent phases. Any light from the moon will interfere with your ability to see stars and galaxies. Click <u>here</u> to learn more about phases of the moon.

SUNSET TIME

Sunset time helps you plan your night. Eyes need about 15 minutes to acclimiate to the dark. About 20 - 30 minutes after sunset, the sky becomes dark enough for stargazing.

Ideally, the Milky Way is seen most clearly in the summer about 1 - 1.5 hours after sunset (after 10 p.m. in summer months). You'll also need to think about how long you will stargaze and travel time back to Bluff and your lodging.

Photo: Night sky over Valley of the Gods, Bears Ears National Monument

2. WHAT TO PACK

Use our packing checklist to ensure your family is fully prepared for a memorable stargazing experience.

Chairs or a Blanket: Bring reclining chairs or a large blanket so your family can comfortably lie back and gaze at the stars.

Jacket: Bluff's nights are much cooler than the daytime. Warm jackets may be needed.

Binoculars or Telescopes: If you have binoculars or telescopes, bring them along for an enhanced celestial view.

Tripod: For capturing dark sky photos, a tripod or stand is essential. Keeping your camera or phone completely still is crucial for clear shots. Consider purchasing an affordable <u>tripod</u> (with a remote control) to elevate your photography game.

Snacks: To keep everyone happy and comfortable during your stargazing session.

Flashlight: A flashlight or headlamp is essential for navigating in the
dark. Red light flashlights are preferable as they are less disruptive to your night vision.

Water: Always bring water with you.

Charged Phone and/or Extra Batteries: Pack backup batteries for your flashlight and camera. Be sure your phone is charged before your stargazing adventure.

3. WHERE TO GO

Options in and around Bluff.



Photo: Night sky over Twin Rocks in Bluff, Utah

Bluff is an ideal stargazing destination thanks to its small population, rural location, and minimal light pollution. The town's Outdoor Lighting Ordinance mandates shielded lighting and sets limits on total light emissions. Click <u>here</u> to see a map of our area's low levels of light pollution.

Stargazing in or near Bluff also means that your family will have a short trip back to your lodging.

Some lodging properties have areas with chairs or hammocks for comfortable stargazing.

Sand Island in Bears Ears National Monument, located 4 miles west of Bluff, along the San Juan River can offer excellent views of the night sky.

Valley of the Gods (about 15 miles from Bluff) has wide open expanses for stargazing. Remember to drive only on established roads.

DARK SKY PARKS NEAR BLUFF

Bluff is near 3 International Dark Sky Parks.

For an unforgettable stargazing experience, visit an International Dark Sky Park near Bluff. These designated areas offer pristine night skies, free from light pollution, and are recognized for their dedication to preserving the nocturnal environment, making them perfect for stargazing.

NATURAL BRIDGES NATIONAL MONUMENT

~65 miles from Bluff

The world's first International Dark Sky Park

GOOSENECKS STATE PARK

25 miles from Bluff

Wide-open vistas with a stunning view

HOVENWEEP NATIONAL MONUMENT

50 miles from Bluff

Envision the night sky as seen by Ancestral Puebloans

4. USE APPS AND ONLINE RESOURCES

Useful websites for planning your stargazing event.

<u>Weather.com</u>: Find forecasted temperatures, sky conditions (opaque cloud coverage), and sunrise/sunset times on a particular day: **Bluff's zip code is 84512.**

Timeanddate.com: Free website with sunset times, moon phases, and planetary events.

<u>Spotify</u> playlist: Enhance your experience with a specially curated Spotify playlist by Cellestron telescopes.

Dark Sky Passport for Kids: From Utah State University, this is a fun, educational booklet that guides children through activities to explore and learn about the night sky.

<u>Utah's Dark Sky for Beginners</u>: a guide from the Utah Office of Tourism that introduces newcomers to stargazing, offering tips and locations for enjoying the state's renowned dark skies

Light Pollution Map: an interactive online map that displays global light pollution levels, helping users find dark sky locations for stargazing Photo: Night sky over Bluff, Utah



CHECK FOR NEARBY EVENTS

Nearby International Dark Sky Parks sometimes offer ranger-led stargazing events. Links to park calendars are below:

- Goosenecks State Park
- Natural Bridges National Monument
- Hovenweep National Monument

Bears Ears Partnership hosts Star Parties twice a year. <u>Learn more</u>.

4. USE APPS AND ONLINE RESOURCES

Useful apps for real-time stargazing to identify stars and constellations.

YOUR PHONE IS A GREAT TOOL FOR STARGAZING

Not sure what's twinkling up there? It's easy.

With a stargazing app, like a Virtual Sky Map (also known as a Field of View Simulator), you can easily learn about the night sky. Just point your phone at the sky, and the app will help you identify stars, planets, and more in real-time.

Here are free and paid stargazing Iphone apps to check out.

- <u>Stellarium</u> App: Free and paid apps. Find Moon Phases, today's sunset time and celestial happenings. This app also has a Field of View Simulator based on your location.
- <u>Skyview App</u>: Free version is Skyview Lite app. Just point your phone at the sky to identify stars and constellations.
- <u>Nightsky</u> App: Identifies stars, constellations, and planets in real-time using your phone camera.

Photo: Night sky over Hovenweep National Monument

4. USE APPS AND ONLINE RESOURCES

Useful resources for taking nighttime photos with your cell phone.

ASTROPHOTOGRAPHY WITH YOUR CELL PHONE

Newer iPhone and Samsung models have a Night Mode feature, which improves evening photography. Night Mode keeps the camera shutter open longer to gather more light. It also captures multiple images and combines them into one image. Phones with Night Mode have advanced hardware and machine learning to brighten and balance images for clearer, more detailed photos.

Good news: Night Mode is automatically activated on your phone camera in low-light conditions.

Because of longer exposure times, it is important to stabilize your phone. Inexpensive tripods with remote controls are available for less than \$15. Click <u>here</u> for an example.

For Apple iPhones: View instructions <u>here</u> on Night Mode by phone model. For Samsung Galaxy phones: View instructions <u>here</u>.

Other Articles: <u>How to Photograph the Milky Way With Your Phone</u>.

<u>Discovery Place Capture the Night Sky With Your</u> <u>Smartphone</u>

CHECKLIST FOR YOUR NIGHT OF STARGAZING Putting It All Together

1	Doublecheck Weather
2	Develop a Timeline -Think about sunset time, Peak viewing time, time spent stargazing, travel time to and from your stargazing location
3	Review Astrophotography Tips and Download Apps
4	Keep an Eye on Your Gastank
5	Scout Your Location
6	Give Your Eyes Time To Adjust and Wait for Full Darkness
7	Phone or Camera Setup -Stabilize camera and adjust phone or camera settings
8	For the Easy Win: Locate the Milky Way -The Milky Way will appear to your south/southeast; In Bluff, face towards the San Juan River; or the south side of Main Street/Highway 191.
9	You're On Your Way! Now Find More Stars and Constellations -North Star (Polaris)-appears to be the center of the sky. -Big Dipper -Use phone apps for assistance in locating them