



Scouter's Edition

Star Constellations

The Crean Award:

Discovery:

Patrol Activity

Endurance:

Planning

Star-gazing reflection

Terra Nova:

Patrol Involvement

Patrol Activity

Polar:

Patrol Activity

SPICES

Character

Spiritual

Special Interest Badge

Astronomy

The Activity:

Objective:

To organise a night-sky observation session for your patrol.

Activity Type:

Patrol Activity

Roles:

Activity Leaders



"Orion constellation with star labels" by Anirban Nandi - Own work. Licensed under CC BY 3.0 via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Orion_constellation_with_star_labels.jpg#/media/File:Orion_constellation_with_star_labels.jpg





Plan: Star Constellations

Constellations

A constellation is a pattern of stars in the sky. The ancient Greeks 'drew' lines between sets of stars to form the images of animals and mythological characters. While these stars may appear to be close to each other from our perspective, they can be very far apart in reality.

There are 88 recognised constellations, but the most famous are the 12 Zodiacal constellations. Some constellations you may see all year around, some are seasonal and may only be visible at certain times of the year; this is because of the earth's rotation.

Why not get each patrol to pick some constellations that should be visible in the night-sky and research their shape and story?

Setting Up

- You will need a clear night. Check the weather forecast, and look for a night with high air pressure as this gives a greater likelihood of clear skies.
- Light Pollution: In urban areas, the glow from artificial light (homes, street lights, cars, etc), brightens the night sky and blocks the light of stars. In rural areas, light pollution is significantly decreased.
- Check out astronomy resources online, such as Astronomy Ireland or the astronomy merit badges of the UK Scout Association or the Boy Scouts of America. These will provide details for star-gazing at different times of the year.
- Prepare for standing around outside at night, by wearing suitable clothing and bringing refreshments.



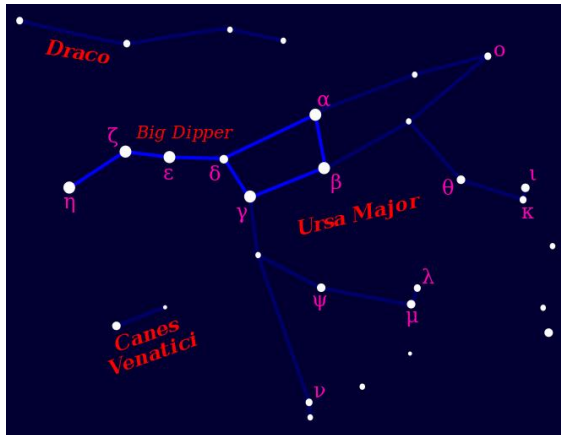


Do: Star Constellations

In the Northern Hemisphere, some of the most famous and easy to spot are:

Ursa Major - the Big Dipper or the Great Bear

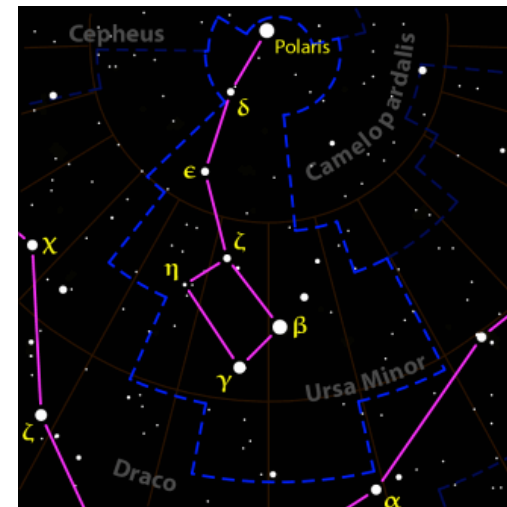
This constellation contains the most recognised group of stars in the sky: the Plough. You can use this constellation to help you find Polaris, the North Star.



"Plough big dipper" by Rursus - Own work. Licensed under CC BY-SA 3.0 via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Plough_big_dipper.svg#/media/File:Plough_big_dipper.svg

Ursa Minor - The Little Dipper or the Little Bear

This constellation actually contains Polaris. It is like a compass in the sky, allowing you to find your way.



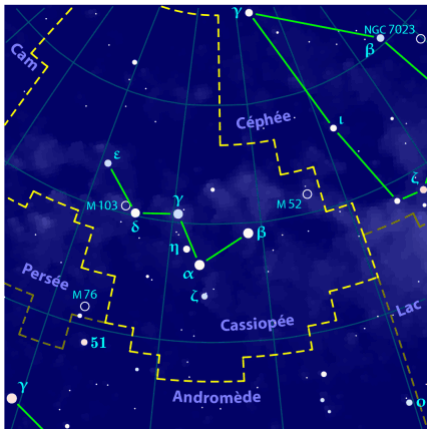
"Ursa minor constellation map black". Licensed under CC BY-SA 3.0 via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Ursa_minor_constellation_map_black.png#/media/File:Ursa_minor_constellation_map_black.png



Do: Star Constellations

Cassiopeia.

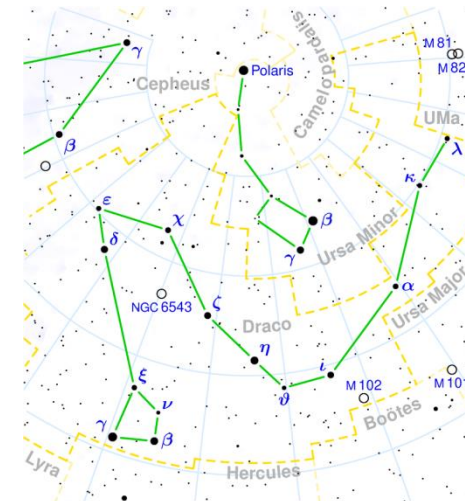
It is named after the vain queen Cassiopeia in Greek mythology. It is easily recognised due to its distinctive 'M' or 'W' shape. Follow the line from the middle star of the Big Dipper's handle through Polaris to find Cassiopeia.



"Cassiopeia constellation map-fr" by The original uploader was Orthogaffe at French Wikipedia - Transferred from fr.wikipedia to Commons by Korrigan using CommonsHelper.. Licensed under CC BY-SA 3.0 via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Cassiopeia_constellation_map-fr.png#/media/File:Cassiopeia_constellation_map-fr.png

Draco - The Dragon

Draco is circumpolar, meaning that it never sets below the horizon and is always visible in the Northern Hemisphere. It winds around Polaris between the Big and Little Dippers. The four stars that form the dragon's head are easiest to see.



"Draco constellation map". Licensed under CC BY-SA 3.0 via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Draco_constellation_map.png#/media/File:Draco_constellation_map.png





Night sky map for Northern Hemisphere in June.

The image was created by NASA and is available on astronomycentral.co.uk



Do: Star Constellations

Reflection

Observing stars offers a good opportunity for reflection. The night sky has inspired people throughout history, and when you stop and look up you can easily see why. It gives your patrol a chance to consider the natural world and get a sense of the bigger picture. You can also think about how enormous and complex the universe is, and appreciate the richness of creation.

You could run a Scouts' Own or hold a simple reflection ceremony with some quotes and silence while taking in the night sky. Also, scouts could tell the story of some of the constellations, especially those from Greek mythology. If you bring survival bags, why not just lie down and look up at the night sky.

Some useful quotes:

Dwell on the beauty of life. Watch the stars, and see yourself running with them. — Marcus Aurelius

Sometimes while gazing at the night's sky, I imagine stars looking down making wishes on the brightest of us. — Richelle E. Goodrich

For my part I know nothing with any certainty but the sight of the stars makes me dream. — Vincent Van Gogh

The nitrogen in our DNA, the calcium in our teeth, the iron in our blood, the carbon in our apple pies were made in the interiors of collapsing stars. We are made of starstuff. — Carl Sagan





Review "SPICES"

Social

- Relationships
- Communication Skills
- Other Cultures
- Community Involvement
- Promise & Law

Physical

- Eat Well
- Personal Hygiene
- Balanced Lifestyle
- How Body works
- Physical Limitations
- Health Choices
- Access Help

Intellectual

- Achieving Goals
- New Ideas/Creativity
- Learn from Decisions
- Team Member

Character

- Promise & Law
- Friends & Friendships
- Plan before do
- Ensuring Fairness
- Respect
- Differences & Views
- Following Dreams
- Live the Scouting Spirit

Emotional

- Aware of feelings
- Asking/Giving Help
- Responsibility for Emotions
- Controlling Emotions
- Going Further
- Beliefs & Values
- Developing Talents

Spiritual

- Promise & Law
- Impact on Environment
- Reflection
- Changing Beliefs





Review

How did this activity help achieve your Crean Awards?

Patrol Review

What can we do next?





Scouter Notes

Star-gazing can be an easy and fun activity, especially on camp or a night hike. It could also make part of a Special Interest Badge for a Scout interested in astronomy. When the Scouts are preparing for the activity, suggest that they do some work researching astronomy and star constellations beforehand to get the most out of the exercise.

This activity is also relevant for Scouts doing their Endurance Crean Award, with the requirement to participate in a sunrise, sunset or star-gazing reflection. If the patrol are choosing to include a reflective element, a Scouter can give a hand in picking quotes and some appropriate readings and prayers. The guide to doing a Scouts' Own might be useful for this (goo.gl/hWEmVf).

In reviewing the activity, have the participating scouts think about what was involved and the experience of looking up at the all the stars of the night sky. For the activity leaders, talk about the difference between the expectation of the event and practicalities of running it. What were they? What would they do differently?

From the **SPICES**, parts of the **Character** and **Spiritual** areas can be relevant to this activity. In *Character*, did the activity leaders think carefully and creatively about what was involved and ensure everyone could get involved? From the *Spiritual* area, did the activity present scouts with an opportunity to reflect on the wonder of God, or the beauty of creation? How did scouts respond to the night-sky? What was it like when they identified the constellations?

