

Exploring Bootes and Canes Venatici - Activities (Ages 8-11)



Today we are going to investigate:

- How to find two springtime constellations
- The mythological stories behind these constellations
- The brightest stars in these constellations
- A deep space object between these constellations

Activities

- 1 Today we are going to explore two springtime constellations. Use the Space Travel tab to set Night Sky to any evening in May. Look to the south for a constellation called Boötes (pronounced “Bow-tez”).

Question: What do you think this pattern is meant to represent?

- a) Kite b) Ice cream cone c) Herdsman

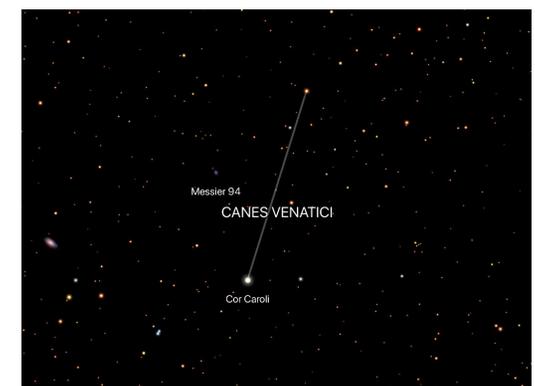
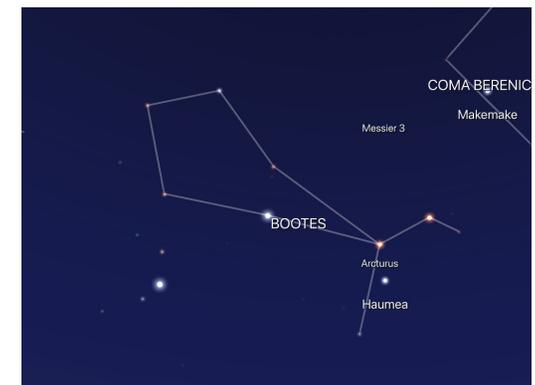
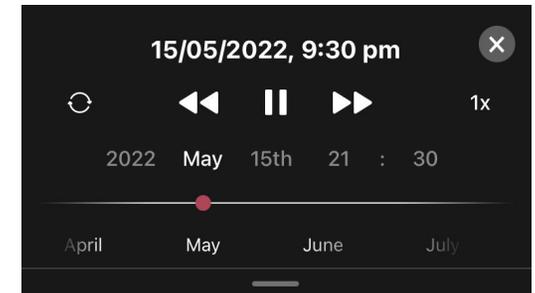
- 2 Go to Night Sky’s Preferences menu and turn on Show Glass Mythology to find the surprising answer! In ancient mythology Boötes was supposed to be protecting his flock from the two bears in the sky. Gently move the sky around and you’ll see he had two companions to help him. They are represented by the constellation Canes Venatici

Question: Canes Venatici represents two of what kind of animal?

- 3 Canes Venatici is a really simple constellation, it has just two bright stars! The brightest star is called Cor Caroli which means “Charles’ Heart”. It was named after King Charles of England. Cor Caroli is actually two stars orbiting around each other.

Question: What do astronomers call a pair of stars like this?

- a) Quad stars b) Binary Stars c) Hexa-stars



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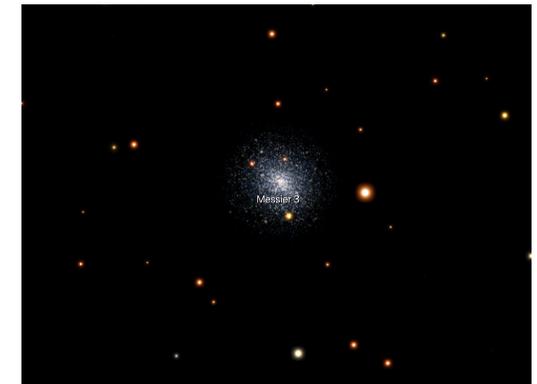
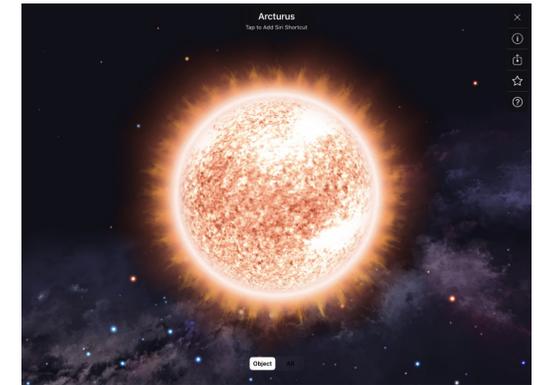
- 4 Boötes is home to Arcturus, the second brightest star in the northern hemisphere. Arcturus is an old orange giant star near the end of its life. One day in the very far future the Sun will look like Arcturus too. Find Arcturus and double tap on it to show a 3D model of this star. Tap on the  icon to bring up the information panel.

Question: How far away is Arcturus (in light years)?

- 5 Close the information panel by tapping the  in the corner. Get both Boötes and Canes Venatici on the screen at the same time. Look half way between Arcturus and Canes Venatici for an object called Messier 3 which looks like a swarm of bees. Tap on the  icon to see the information panel

Question: What type of object is Messier 3?

a) Globular cluster b) Nebula c) Galaxy



What we have discovered:

- Boötes and Canes Venatici are springtime constellations
- These constellations do not look like their Greek myth characters
- Arcturus is the brightest star in Boötes
- Cor Caroli is the brightest star in Canes Venatici
- Arcturus is an old giant star
- Messier 3 is a deep sky object in Canes Venatici

Well done!
You're a Night Sky
Superstar!