

Constellation Creation

Lesson 19 Answer Sheet

Name: _____ **Answer Guide** _____

Date: _____

Vocabulary

Constellation - a grouping of stars in the celestial sphere perceived as a figure or design

Astronomy - the scientific study of celestial objects and phenomena beyond Earth's atmosphere

Activity 1

Constellation Creation and Research

With the Ari Compass Application, you'll be recreating the starry skies. Set the Ari Compass application to On a Map, and with each constellation drawing activity, orient the application to the compass provided.

You'll receive directions to draw each of the constellations. Use and move Ari to place and sketch the constellation.

1

- A. Begin drawing at H6.
- B. Draw a 3 block diagonal line NNW.
- C. Draw a 2 block vertical line N.
- D. Return to G3.
- E. Draw a 2 block diagonal line SW.
- F. Draw a 2 block horizontal line W.
- G. Draw a 3 block diagonal line NNE.
- H. Return to E5.
- I. Draw a 2 block diagonal line SE.
- J. Draw a 2 block diagonal line SW.
- K. Draw a 3 block diagonal line NW.
- L. Draw a 1 block diagonal line SW.
- M. Return to G7.
- N. Draw a 1 block diagonal line NE.
- O. Draw a 2 block diagonal line SE.
- P. Draw a 3 block diagonal line SW.
- Q. Return to J8.
- R. Draw a 1 block diagonal line SE.

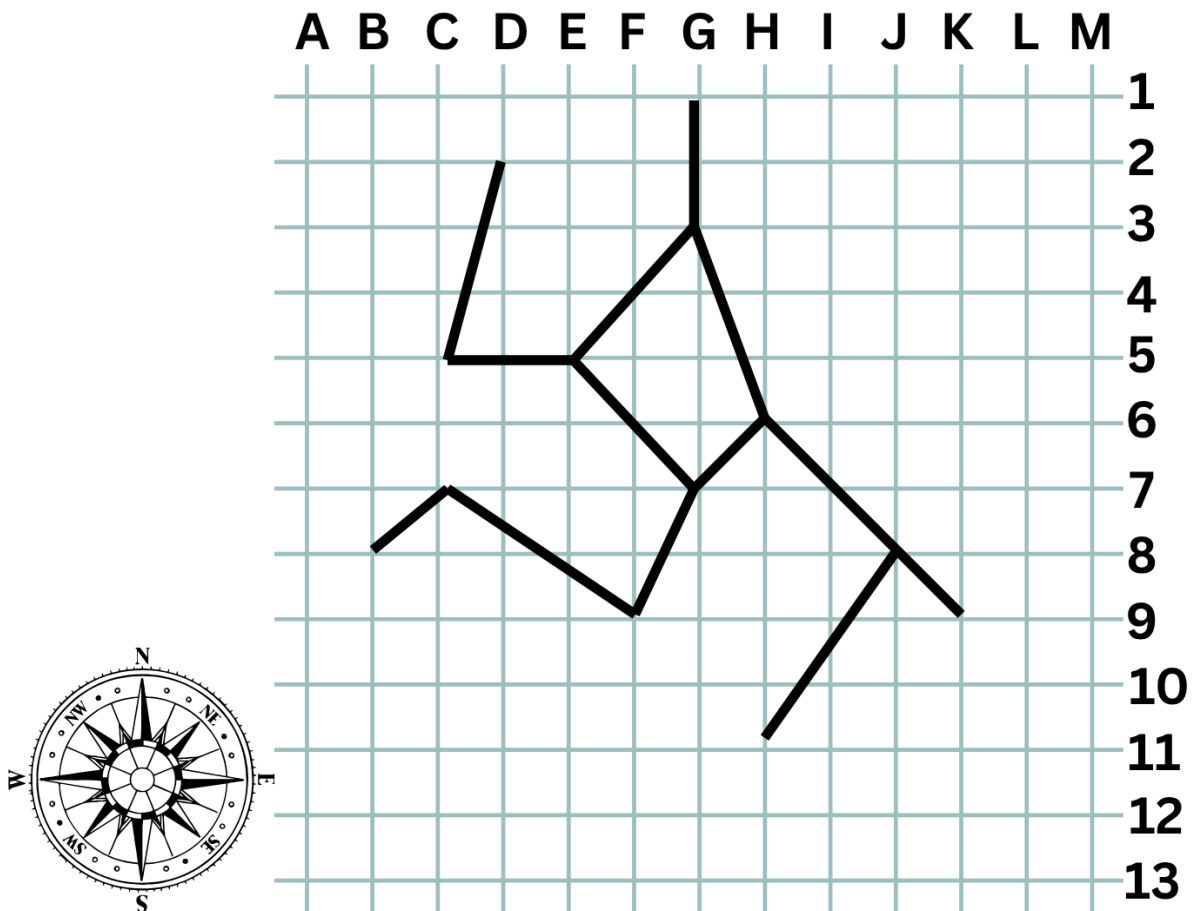
Note: This is what the constellation looks like around midnight in mid-June in the Northern Hemisphere.

Constellation Creation

Name: _____ Answer Guide _____

Lesson 19 Answer Sheet

Date: _____



2

With your drawn constellation as reference, research and record the following facts about the constellation:

1. Name of the constellation: **Hercules**
2. Summarize the story of the mythical figure: The story of Hercules begins as he was born the son of Zeus, a god, and Alcmene, a mortal woman. It is said that Hercules drank Hera, Zeus's wife's, milk as a baby and became immortal. As a result, however, Hera was incensed and cursed Hercules to destroy his family. After Hercules recovered from Hera's curse, he wanted to redeem himself and was given 12 acts to perform. Hercules successfully performed all 12 tasks, one of which was killing a dragon guarding one of Hera's gardens. It is this act that gives him his celestial figure as it is said he is kneeling over the dragon Ladon in the night sky.
3. What the constellation represents in the night sky: Hercules represents the hero in the night sky in both abilities, myth, and size in the celestial sky as it is in the top five largest constellations.

3

Constellation Creation

Lesson 19 Answer Sheet

Name: _____ **Answer Guide** _____

Date: _____

- A. Begin drawing at E6.
- B. Draw a 2 block diagonal line NW.
- C. Draw a 2 block diagonal line NNW.
- D. Return to C4.
- E. Draw a 1 block diagonal line NE.
- F. Draw a 2 block vertical line N.
- G. Return to E6.
- H. Draw a 2 block diagonal line NNE.
- I. Draw a 3 block diagonal line SE.
- J. Draw a 4 block diagonal line ESE.
- K. Draw a 4 block diagonal line SSW.
- L. Draw a 3 block diagonal line NW.
- M. Draw a 1 block diagonal line NNE.
- N. Draw a 1 block vertical line N.
- O. Place Ari at G5.
- P. Draw a 2 block diagonal line NE.
- Q. Draw a 1 block diagonal line NW.
- R. Draw a 1 block horizontal line W.
- S. Place Ari at I3.
- T. Draw a 2 block diagonal line SE.
- U. Draw a 1 block vertical line S.

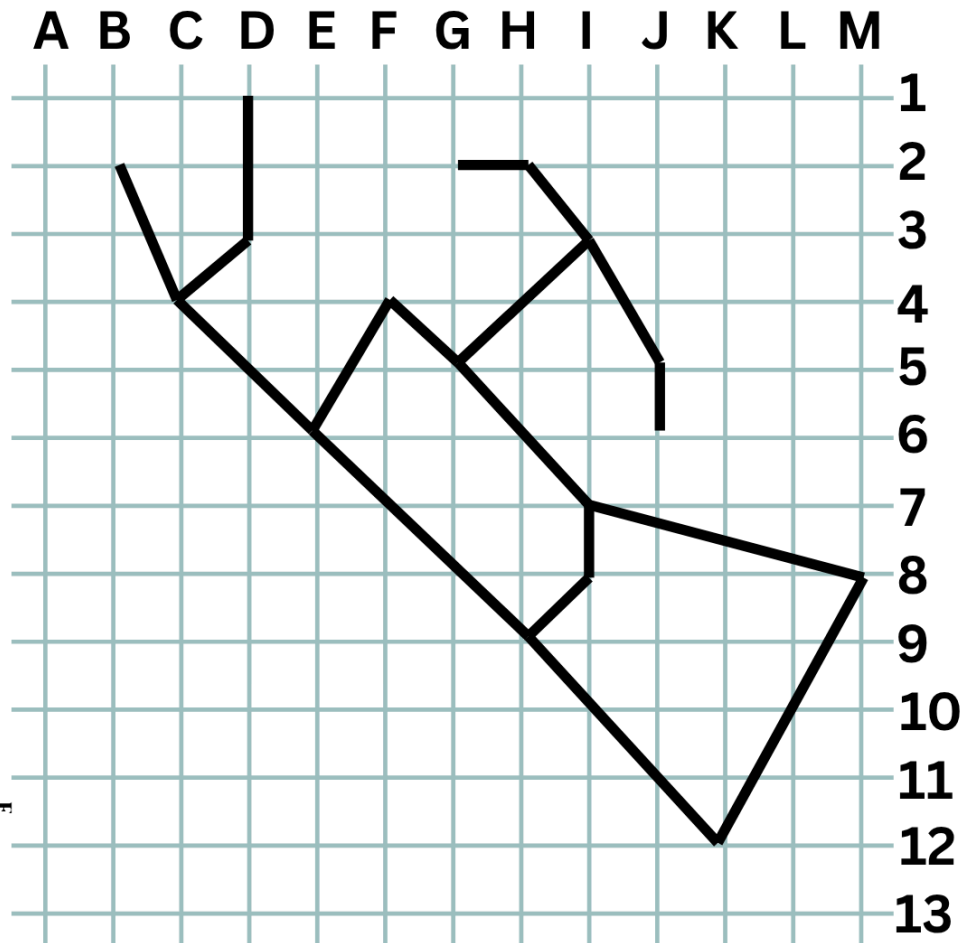
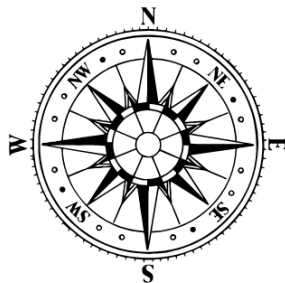
Note: This is what the constellation looks like around midnight in February in the Northern Hemisphere.

Constellation Creation

Lesson 19 Answer Sheet

Name: _____ **Answer Guide** _____

Date: _____



4

With your drawn constellation as reference, research and record the following facts about the constellation:

1. *Name of the constellation:* **Orion**
2. *Summarize the story of the mythical figure:* **Orion's story begins as he was the son of Poseidon and Eurydale. Orion hunts with both a spear and a shield and is often surrounded as he is in the night sky by his two hunting dogs. He often bragged that he could kill any animal and hunted both animals as well as chased people, and the interpretations in the night sky portray him doing both.**
3. *What the constellation represents in the night sky:* **Orion's stars include some of the brightest in the night sky, and additionally, the Orion constellation includes the supplemental constellation, Orion's Belt. Orion is seen as the hunter in the sky.**

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Lesson 19 Answer Sheet

Name: _____ **Answer Guide** _____

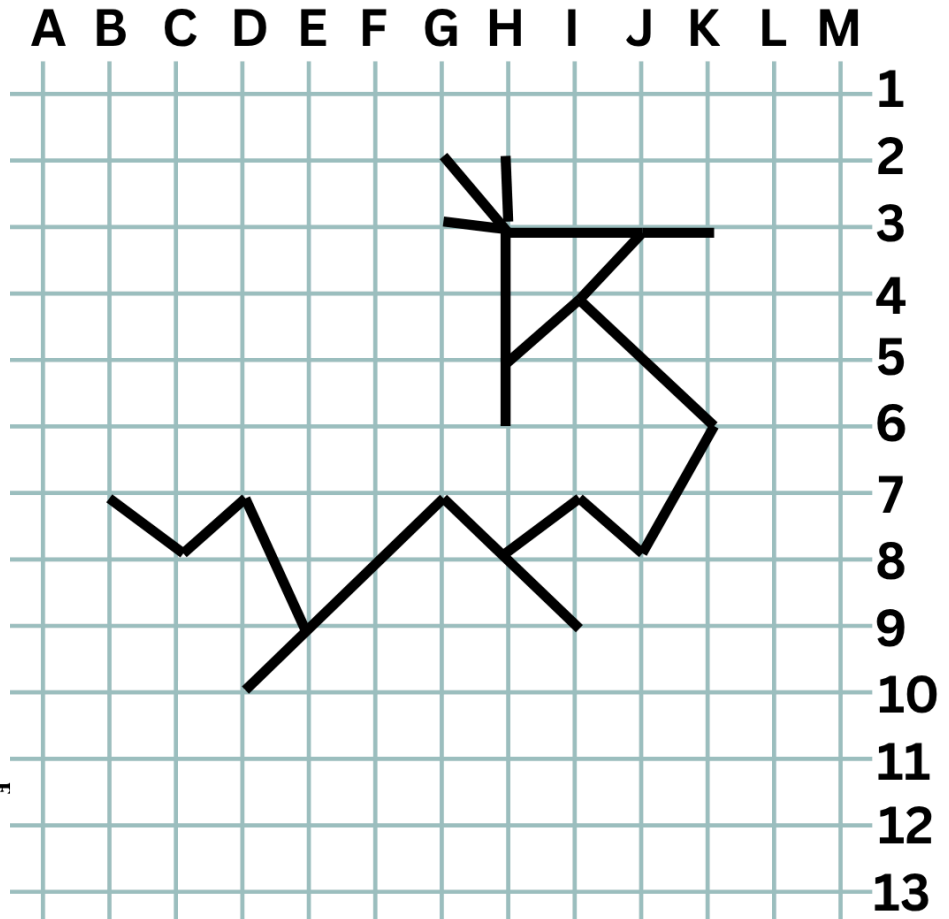
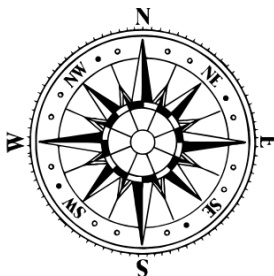
Date: _____

Activity 2

Create Your Own Constellation

1

After drawing existing constellations and researching the myths and lore about each of them, draw your own constellation below, keeping in mind what you've learned about the existing constellations.
(Drawings will vary)



2

With your personal drawn constellation as reference, construct the following facts about the constellation:

1. Name of the constellation: (Answers will vary based on the student's drawings) Shining Sea Warrior
2. Summarize the story of the mythical figure: (Answers will vary) The story of the Shining Sea Warrior is based around a Roman mortal who at first attempted to cross the sea, but was unsuccessful until she defeated the sea whale that stopped her passage. After defeating the sea whale, the Shining Sea Warrior was immortalized and took its place in the sea.
3. What the constellation represents in the night sky: (Answers will vary) The Shining Sea Warrior represents perseverance in the face of adversity, as a mortal taking on a mythical creature and being successful was rare.

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Exit Ticket

Please respond to the following prompts.

1. What are some similarities that different constellations have in common?

Constellations all have a reason to be “in the stars” in that there was some heroic or important feat that the god, goddess, or mortal being accomplished that made them worthy of being immortalized in the stars.

2. How was Ari useful in drawing each of the constellations?

Ari was helpful in determining the directions to draw each of the lines of the constellations as if we were connecting stars in the sky. The On a Map setting allowed us to orient Ari to our drawing grid.