



# Nature-Watch Activity Kit

## Starry, Starry Day

### Starry, Starry Day Kit Contents

<u>Item:</u>	<u>Kit Size</u>		
	<b>1</b>	<b>25</b>	<b>100</b>
	<u>Quantities:</u>		
Constellation Sets	1	25	100
Plain Medallions	1	25	100
Key Chains	1	25	100
Glue	0	1	2
Instructor Manual	1	1	1

*This page includes the Next Generation Science Standards (NGSS) mapping for this kit and a Science, Technology, Engineering, and Math (STEM) chart (on back) to use in adapting and extending this activity to other subject areas. The NGSS mapping and STEM chart are brought to you by Resource Area For Teaching (RAFT) in partnership with Nature-Watch.*

*Nature-Watch and Resource Area For Teaching (RAFT) are both dedicated to providing the best in hands-on experiential teaching resources for educators and their students.*

For more information visit:  
[www.nature-watch.com](http://www.nature-watch.com) and  
[www.raft.net](http://www.raft.net)

### **Next Generation Science Standards Alignment**

#### 1-ESS1-1:

Use observations of the sun, moon, and stars to describe patterns that can be predicted.

#### 5-ESS1-1:

Support an argument that the apparent brightness of the sun and stars is due to their relative distances from Earth.

#### 5-ESS1-2:

Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearances of some stars in the night sky.

#### MS-PS4-2:

Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

**See Back for STEM Chart**

## Science

- Describe why the constellations appear to move across the night sky throughout the year
- Relate the position of specific constellations to the seasons and position of the sun

## Technology

- Visit <http://neave.com/planetarium/> and use the application to identify the current positions of constellations represented in the activity from different vantage points on Earth
- Make a spreadsheet listing the positions of the constellations each month

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## Engineering

- Construct a model showing relative distances of stars in specific constellations from Earth
- Use the model to describe the relative brightness of some constellations at different times of the year

## Math

- Write the distances from Earth to several constellations in scientific notation, with units of km. Explain patterns in the number of zeros in the data when multiplying by a power of ten
- Identify geometric figures and properties in the constellations such as common shapes and lines of symmetry

