



User Manual

Star Walk Kids 2

for iPhone/iPod Touch/iPad, tvOS and Android phones and
tablets

July 2017, ver. 2.0.4

Table of Contents

iOS and Android versions	3
1 Introduction	3
2 Star Walk for Kids 2	4
2.1 Activating objects in the sky one-by one	4
2.2 Observatory	7
2.3 Cinema theatre	7
2.4 Space rocket	8
2.5 Settings	8
3 Star Walk for Kids (Original)	8
3.1 Night sky watching	8
3.2 Display/Interface	9
3.3 Search Menu	10
3.4 Changing time	11
3.5 Getting information about an object	12
3.6 Searching for sky objects	13
4 The Apple Volume Purchase Program	13
FAQ	15
Glossary	16

iOS and Android versions

1 Introduction

Star Walk™ Kids is a stargazing application for kids who are eager to learn. The app allows users to identify about 700 heavenly bodies and learn about them, watch moon phases, see daily sunset and sunrise times, elevation angle, and daily hours of sunlight as well as the data for all main planets. Furthermore, app includes voice-overs in English, German, Russian, Italian, French, Portuguese, Spanish, Chinese Traditional, Chinese Simplified, Japanese and Korean languages.

Star Walk™ Kids is an excellent guide to the world of astronomy that allows you to learn the secrets of our Universe just sitting comfortably in the arm-chair or during stargazing outside. With Star Walk™ Kids you can see the following object/events:

- Stars and constellations
- Solar system bodies (planets, the Sun, the Moon)
- Movies about all the planets, most known constellations and satellites
- Black hole Cygnus X-1 and movie about it
- There are hundreds of objects with voiced facts

Star Walk™ Kids has many useful and easy-to-use features:

Star Spotter shows the sky as seen in reality and follows the moves of the user.

Time Machine extends control of star viewing into the past and future. Once activated, a panel drops down and you can rapidly flip through time moving slider.

Search allows you to search for any planet, constellation, messier object, satellite, or star you are interested in and see it on the sky.

Cartoonish graphics smooth and eye candy colors, icons, pictures that make the use of Star Walk™ a real pleasure.

Information gives a full pack of information along with the media on chosen object and provides an access to Wikipedia pages.

Movies are short animated films that explain the most important cosmic phenomena in simple terms

Voiced facts about all the planets, most constellations, stars and satellites

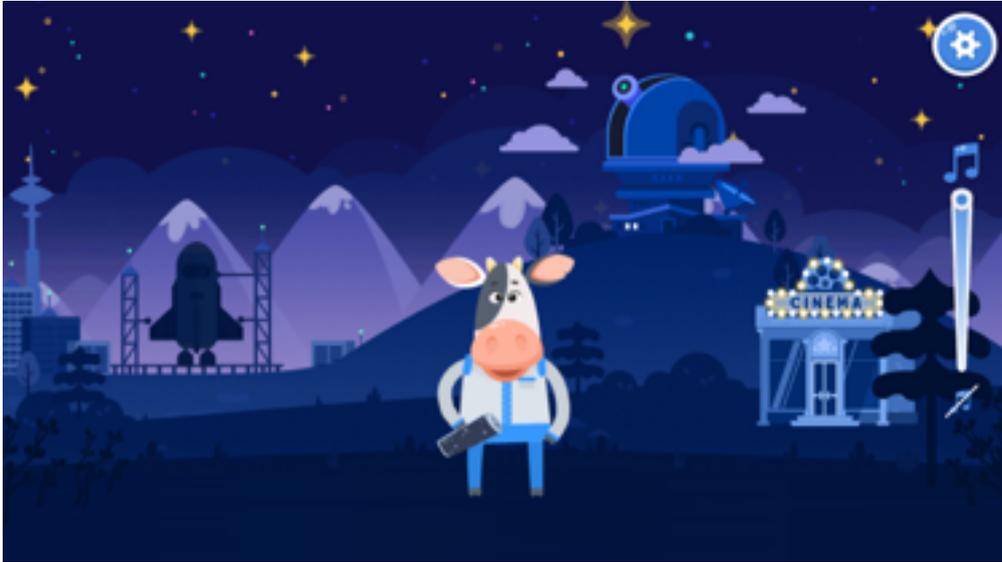
Star Walk™ Kids is currently available in the following languages: English, Chinese Traditional, Chinese Simplified, French, German, Italian, Japanese, Korean, Russian, Spanish.

The application is compatible with iPhone, iPod touch (4th, 5th and 6th generations) or iPad, requires iOS 7.0 or later.

The application is compatible with Android phones and tablets with OS 5.0 Lollipop

2 Star Walk for Kids 2

To launch Star Walk™ Kids, click on its icon on your touch screen. The program will load and it can take up to 10 seconds to open. The first thing that you'll see will be a story how the Cow, the main hero of the app became an astronaut.



2.1 Activating objects in the sky one-by one

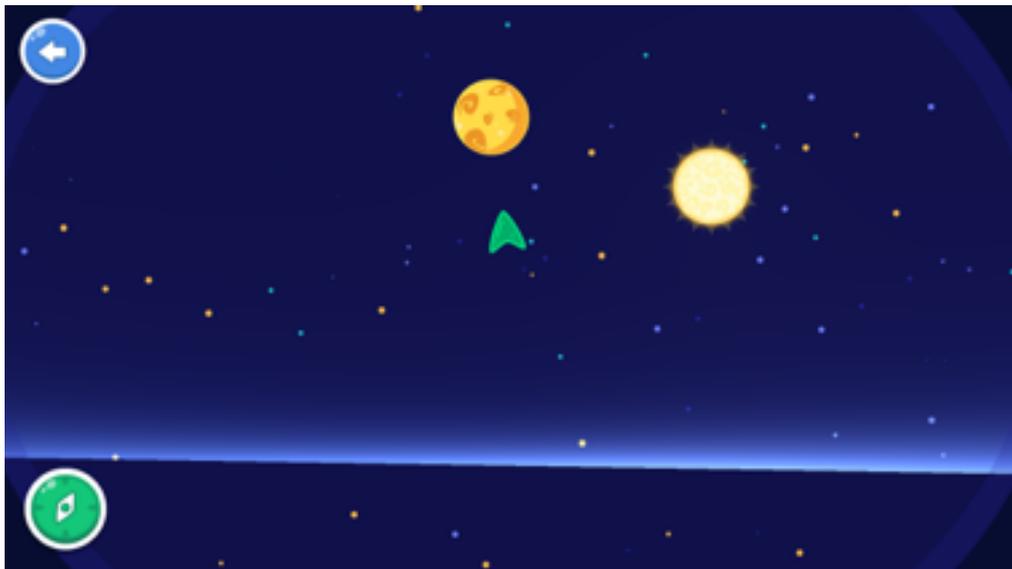


Start exploring the night sky by tapping the Cow with the map.

There will appear a roadmap for learning sky objects. All objects will be locked at first, to open them you should study the objects one-by-one.

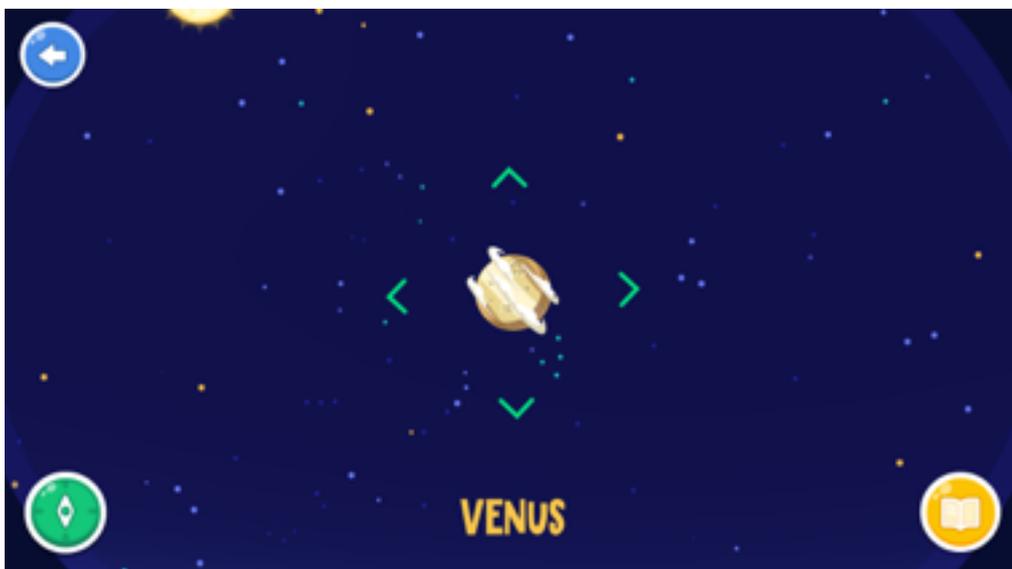


The first is the Sun, tap it and you will see a real night sky map:



Follow the arrow  and find where the object is in the real sky above you right now

Move your device and Star Spotter function will be enabled.

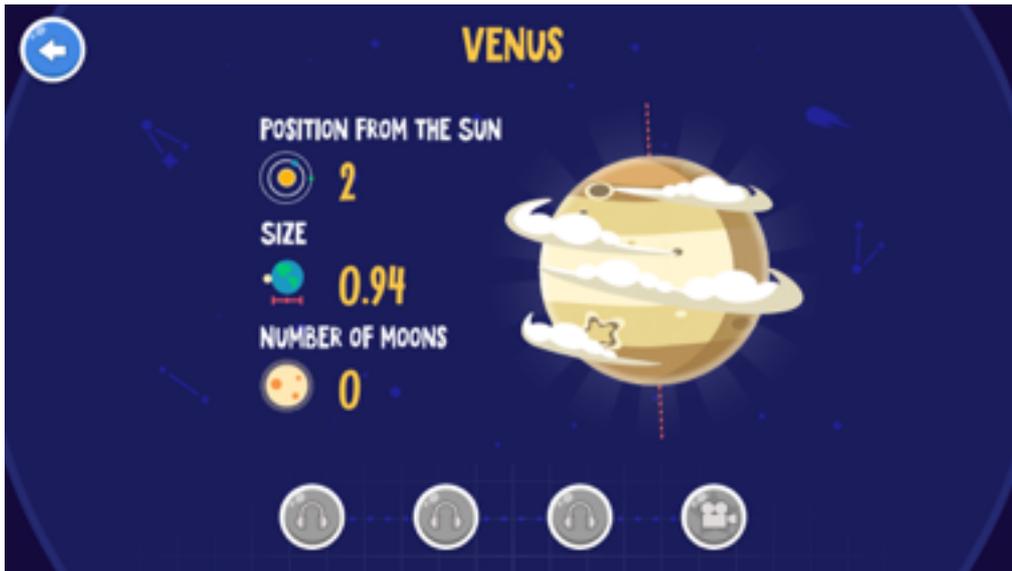


Once you found the object tap it to hear and read its' name and open the learning

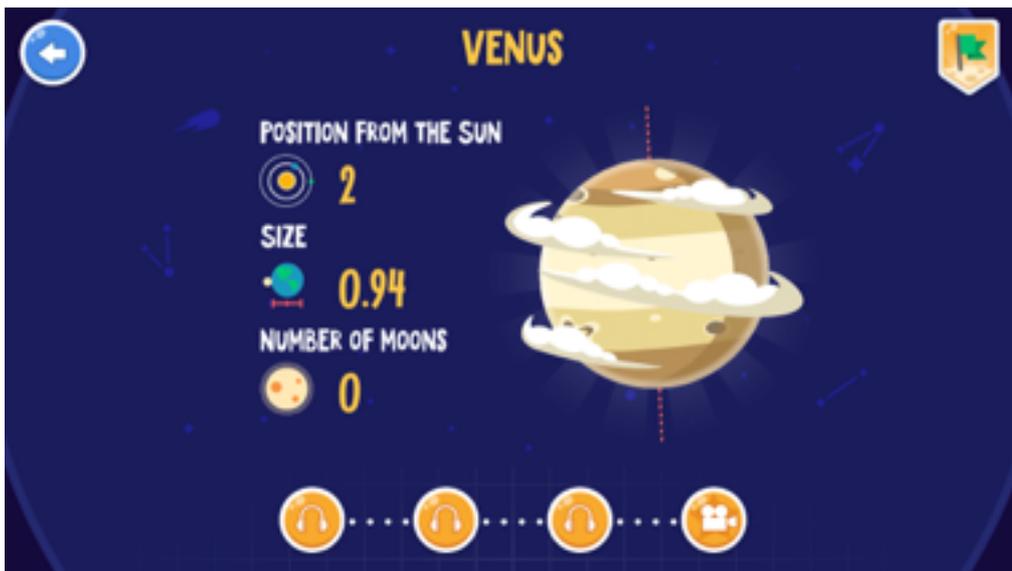
card by tapping the book icon  in the bottom right corner for the screen.

The card will inform you about the size, rise and set hours of the Sun or other parameters if it is a planet or a star.

In the bottom of the card there will be several audio facts and educational cartoon that you should listen to and watch through.



The objects that you've learn are marked with the Flag icon in  the upper right corner of the screen.



When it is done there will appear next object on your roadmap and you can continue learning.

There go Mercury, Earth, Mars and so on.

There are also several Quiz sections, where you you'll be asked several questions about the objects you've just learnt about.

There are 18 Lessons (with objects) and 4 Quizzes.

After you explore the object it lights up in the night sky and when you open the Observatory from the main screen you'll see it in the sky.

2.2 Observatory



When you open the objects on the night sky as described above, you'll be able to use the app for identifying objects in the sky as real night sky map. For that open Observatory from the main screen of the app. Tilt your device and the Star Spotter function will be activated. Star Walk™ Kids uses the digital compass to learn which way you are looking. A live representation of what you see in the sky will appear on your display and the sky will start following your movements whether you move up or down, left or right. To turn off this function, simply tap the display.

For better functioning of the digital compass consider doing the following:

- 1) Tilt your device from landscape to portrait orientation several times. This will help the digital compass recalibrate itself and calculate current position.
- 2) Make sure the compass is not obstructed by thick walls of buildings or large amounts of metal nearby. Try going outside.
- 3) Consider trying again later. Sometimes it is unclear what may be influencing the magnetometer.

2.3 Cinema theatre

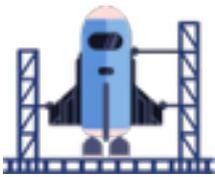


Cinema theatre includes all educational cartoons about main objects.

Tap Cinema icon on the main screen and watch cartoons about Earth, Moon, Sun, Comets, Stars, etc.:



2.4 Space rocket



Space Rocket functionality will light up when you finish step-by-step learning of the planets. Once you open all planets you'll be able to see the whole Solar System in action.

2.5 Settings



In the setting you can tune in the volume of the apps music and voiceover.

3 Star Walk for Kids (Original)

3.1 Night sky watching

Tilt your device and the Star Spotter function will be activated. Star Walk™ Kids uses the digital compass to learn which way you are looking. A live representation of what you see in the sky will appear on your display and the sky will start following your movements whether you move up or down, left or right. To turn off this function, simply tap the display.

For better functioning of the digital compass consider doing the following:

- 1) Tilt your device from landscape to portrait orientation several times. This will help the digital compass recalibrate itself and calculate current position.
- 2) Make sure the compass is not obstructed by thick walls of buildings or large amounts of metal nearby. Try going outside.
- 3) Consider trying again later. Sometimes it is unclear what may be influencing the magnetometer.

3.2 Display/Interface

Star Walk™ has an intuitive touch screen user interface. To navigate around the map use the following gestures:



Compass makes the stargazing more precise by calibrating the compass.



Search allows you to find any star, constellation, Solar system body (the planets, the Sun, the Moon) as well as listen to the information or watch an educational film about different objects



Information icon appears on the left side of the bottom part of the screen when you select any celestial body on the screen. This icon may contain different images:

 - star;  - planet;  - constellation;  - satellite;  - black hole.

By tapping this icon you may find info about selected the body. If the body is large enough (the planet, big stars, missions or constellation) information will contain

button  for voiced information and button  for a short educational movie.



Time Machine opens time panel that allows speeding time back and forth. Just move slider  left or right to speed up or reverse time. Once tapped Time Machine extends.



“X” button closes currently opened window.



Sound button on the left part of the screen opens sliders controlling volume.

- Touch and Drag. Drag your finger around to move quickly across the sky. Drag up and down to adjust the viewing elevation. Drag from side to side to adjust the viewing azimuth (compass viewing direction).

- Pinch. Use to zoom in and out the map.

3.3 Search Menu

Search Menu gives quick access to all the most important celestial objects and content.



Choose required tab from the list on the left part

Different objects might contain voice-overs or/and short movies marked with stickers:



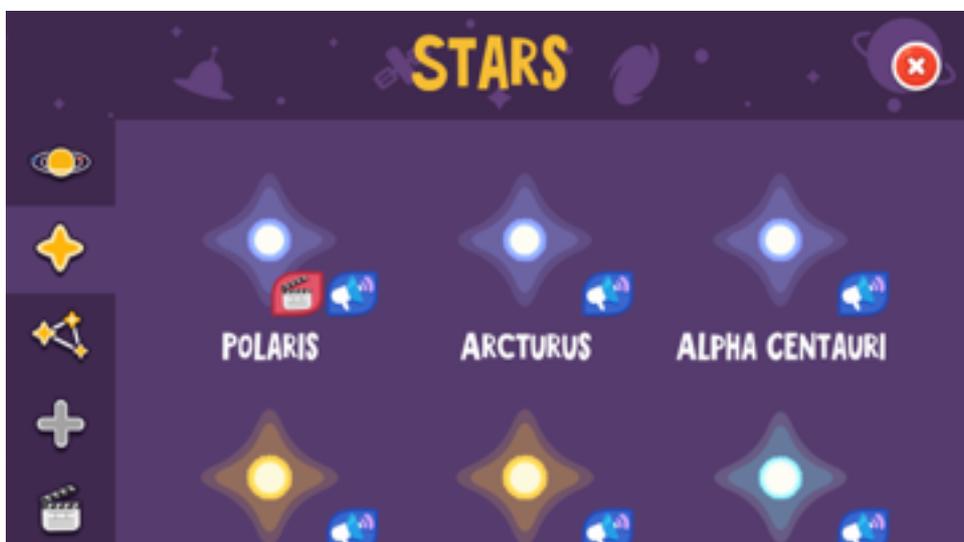
Voice-over sticker



Movie sticker

Solar System tab gives data about all the planets of the Solar System including voiced facts and short movies. Tap any icon to find required object in the sky.

Stars tab gives data about the brightest stars and most valuable stars including voiced facts and 1 short movie. Tap any icon to find required object in the sky.

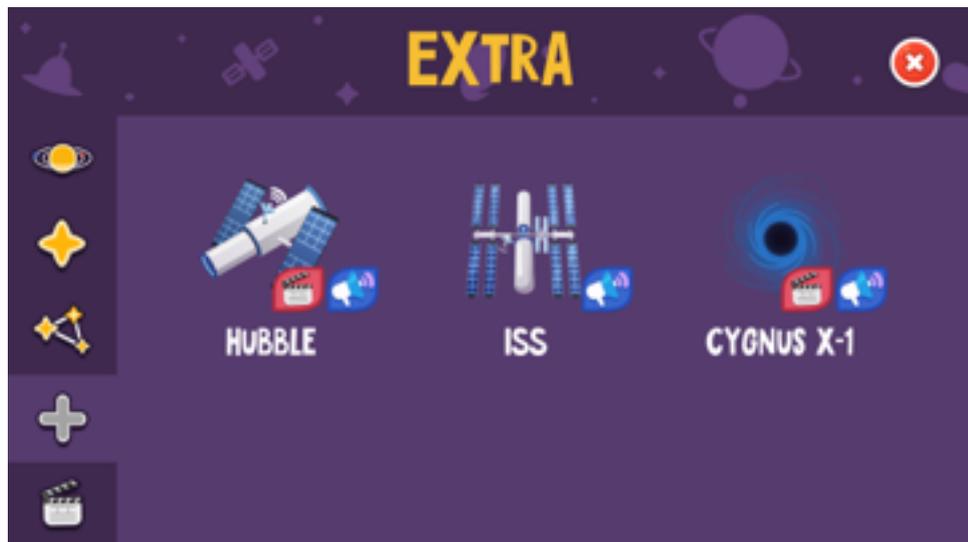


Constellations tab will show you all the available constellations including voiced facts and 1 short movie about Ursa Major constellation. Tap any icon to find required object in the



sky.

Extra tab includes rare objects such artificial satellites and black hole Cygnus X-1. Tap any icon to find required object in the sky.



Movie Theatre tab gives direct access to all the available educational movies. Tap any icon to play selected movie.

3.4 Changing time

Star Walk™ Kids has the Time Machine feature that allows speeding up or reversing the time to see how stars and planets were aligned in the future or past. You can virtually travel through the time and see stars, constellations, and celestial events.



The Time Machine feature is placed in the upper right corner of the screen. In order to maximize it, just tap  button. Time machine slider will appear. Drag central slider left to reverse in time or right to speed up the time. Tap  again to return to current time zone.



3.5 Getting information about an object

Star Walk™ includes many astronomy related data about celestial bodies and pictures. For example, if you select Hercules constellation, you can see some basic facts about it

(number of stars, name of the brightest stars, latin Name). Tap  to listen to short facts about selected object. Tap several times to listen to the different facts.

To learn more about a particular object such as a star, constellation, or planet, tap it on the screen. At the left side of the bottom of the screen you will see the name of the

selected object. Tapping  displays more data about the object and lets you enjoy a closer view. To go back to the night sky, you need to tap .

3.6 Searching for sky objects

The application has the Search feature  that allows searching for sky objects in any place. Tap Search and find the desired name. Then go back to the night sky, use Time Machine and enjoy it.

The Search feature allows you to switch between the following categories:

- Solar system - includes planets, the Moon, the Sun
- Stars
- Constellations
- Extra - includes artificial satellites and black holes
- Movie Theatre - gives instant access to all the available short movies.

Each category has a list of objects and events.

4 The Apple Volume Purchase Program

Star Walk™ participates in Apple's Volume Purchase Program, which means it is available to schools for bulk purchasing at a 50% discount.

It's quick and easy to set up school organization for volume purchasing.

1. Designate a person in the organization as the Program Manager.
2. Receive cards that are physically sent to the school. (Nothing is offered electronically.)



3. Sign up Program Facilitators, which will allow them to make purchases. Set up and manage your institution's list of Program Facilitators using the [Program Facilitator account manager tool](#). Apple will create a new Apple ID for each Program Facilitator to

14 Star Walk™ Kids manual

use exclusively in the VPP Education Store. Existing Apple IDs cannot be used for the Volume Purchase Program. For each Program Facilitator, you will need to provide Apple with a valid email address that isn't currently used as an Apple ID. An institution can have as many Program Managers as it wants.

4. Log in to the [Volume Purchase Program Education Store](#) with your new Apple ID. After login, you can redeem Volume Vouchers given to you by your Program Manager. You can also search for apps and books by name and purchase them in the quantity you need.

For any further questions, please visit [Apple web-site](#).

FAQ

Question	Answer
What is the tan dashed line?	This is the ecliptic.
What does Time machine do?	You can use Time Machine for changing date and time .
How can I find a specific object in the sky?	Tap the Search icon and choose the object you need to find. A green arrow will appear on the screen to point you in the right direction.
How to calibrate the compass?	To calibrate the compass, tap the icon in upper right corner that appears once you tilt your device towards the sky.
How to activate Star Spotter?	Tilt your device towards the sky to activate Star Spotter. To stop Star Spotter touch the screen.
What is the white arrow?	White arrow shows the location of currently selected object.
Why all the voice-overs are not in my native language?	Star Walk Kids supports only English, German, Russian, Italian, French, Portuguese, Spanish, Chinese Traditional, Chinese Simplified, Japanese and Korean voice-overs. If your language is not in the list Star Walk Kids uses English language as a default one.

Glossary

Term	Definition
Above Horizon	the horizon (or skyline) is the apparent line that separates earth from sky, the line that divides all visible directions into two categories: those that intersect the Earth's surface, and those that do not.
Annular Solar Eclipse	occurs when the Sun and Moon are exactly in line, but the apparent size of the Moon is smaller than that of the Sun. Hence the Sun appears as a very bright ring, or annulus, surrounding the dark disk of the Moon.
Comet	an icy small Solar System body that, when close enough to the Sun, displays a visible atmosphere and sometimes also a tail.
Conjunction	occurs when two astronomical objects have either the same right ascension or the same ecliptical longitude, normally when observed from the Earth.
Constellation	one of the 88 patterns of stars in the sky, often named for a mythological god, hero, or animal.
Culmination	in astronomy, the culmination of a planet, star, constellation, etc. is the altitude (or elevation angle) reached when the object transits over an observer's meridian.
Dec (Declination)	the angular distance of a celestial object above or below the celestial equator; the celestial sphere equivalent of latitude.
Density	the amount of mass per unit volume of an object or region of space
Ecliptic	the plane of Earth's orbit around the sun; all the planets except Mercury and Pluto have orbits in nearly the same plane.
Eclipse	an event in which one body passes in front of another, blocking it partially or completely from view; a specific type of occultation.
Elevation angle/Altitude	the angle between the line from an observer or instrument to an object above the observer or instrument and a horizontal line.
Equinox	occurs twice a year (around 20 March and 22 September), when the tilt of the Earth's axis is inclined neither away from nor towards the Sun, the center of the Sun being in the same plane as the Earth's equator. The term equinox can also be used in a broader sense, meaning the date when such a passage happens.
Full Moon	a lunar phase that occurs when the Moon is on the opposite side of the Earth from the Sun. More precisely, a full moon occurs when the geocentric apparent (ecliptic) longitudes of the Sun and Moon differ by 180 degrees; the Moon is then in opposition with the Sun.
Galaxy	an enormous gravitationally bound assemblage of millions or billions of stars.
Gravity	the attractive force that all objects exert on one another; the greater an object's mass, the stronger its gravitational pull.
Horizon	the apparent line that separates earth from sky.
Hybrid Solar Eclipse	(also called annular/total eclipse) shifts between a total and annular eclipse. At certain points on the surface of Earth it appears as a total eclipse, whereas at other points it appears as annular.
Iridium Flare	is the phenomenon caused by the reflective surfaces on the Iridium communication satellites (such as antennas or solar panels) reflecting sunlight directly onto the Earth below and appearing as a brief, bright "flare".

17 Star Walk™ Kids manual

Luminosity	the total amount of light that an object radiates per unit of time.
Lunar Eclipse	occurs when the Moon passes directly behind the Earth into its umbra (shadow). This can occur only when the Sun, Earth, and Moon are aligned (in "syzygy") exactly, or very closely so, with the Earth in the middle.
Magnitude	the measurement of an object's brightness; the lower the number, the brighter the object.
Messier objects	a catalog of 107 bright deep-space objects that belong to a catalog compiled by French astronomer Charles Messier in the 1700s
Meteor	a flash of light that occurs when a meteoroid burns up in Earth's atmosphere; also popularly known as a shooting star.
Meteor shower	a period of enhanced meteor activity that occurs when Earth collides with a swarm of meteoroids; an individual shower happens at the same time each year and has all its meteors appearing to radiate from a common point.
Milky Way	the band of light that encircles the entire sky and results from the combined light of billions of stars in our galaxy's disk.
Nadir and Zenith	the point on the celestial sphere directly over the head of an observer
Nebula	a cloud of gas and/or dust in interstellar space; some nebulae represent stellar nurseries, others represent stellar graveyards.
New Moon	in astronomy, new moon is the phase of the Moon when it lies closest to the Sun in the sky as seen from the Earth. More precisely, it is the instant when the Moon and the Sun have the same ecliptical longitude. The Moon is not normally visible at this time except when it is seen in silhouette during a solar eclipse.
Occultation	occurs when one object is hidden by another object that passes between it and the observer.
Opposition	happens when an outer object (asteroid, planet, comet, etc.) is directly in opposition to the Sun providing the best viewing of this object from the Earth.
Orbital Velocity	the minimum velocity at which a body must move to maintain a given orbit.
Partial Lunar Eclipse	occurs when only a portion of the Moon enters the umbra (shadow). When the Moon travels completely into the Earth's umbra, one observes a total lunar eclipse.
Penumbral Lunar Eclipse	a total penumbral eclipse is a lunar eclipse occurs when the moon becomes completely immersed in the penumbral cone of the Earth without touching the umbra (shadow).
Planet	a major object which orbits around a star. In our solar system, there are 8 such objects which are traditionally called planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.
RA (Right Ascension)	the angular distance of a celestial object east of the vernal equinox; the celestial sphere equivalent of longitude.
Rise	the rising of a star (or other body such as the moon, a planet or a constellation) occurs when it first becomes visible above the eastern horizon after a period of time when it had not been visible.
Satellite	an object orbiting around another, larger one.
Set	the setting of a star (or other body such as the moon, a planet or a constellation) occurs when it sets below the western horizon and is no longer visible.
Solar system	the system containing the sun and all the smaller bodies in orbit around it.

18 Star Walk™ Kids manual

Solstice	an astronomical event that occurs twice each year as the Sun reaches its highest or lowest excursion relative to the celestial equator on the celestial sphere. As a result, on the day of the solstice, the Sun appears to have reached its highest or lowest annual altitude in the sky above the horizon at local solar noon.
Spectral type	the designation of a star based on its spectrum, which is determined by its surface temperature.
Star	a large hot ball of gas which generates energy in its core by nuclear reactions.
Star cluster	a group of stars which are held together by their mutual gravitational attraction.
The closest approach	happens when there occurs the closest approach of two bodies (the point at which two bodies are the closest).
Total Solar Eclipse	occurs when the dark silhouette of the Moon completely obscures the intensely bright light of the Sun, allowing the much fainter solar corona to be visible. During any one eclipse, totality occurs at best only in a narrow track on the surface of Earth.
Zenithal Hourly Rate	the number of meteorites expected to be seen per hour when a meteor shower's radiant is at an observer's zenith; abbreviated ZHR.