by Dave Mansell 1-4 players 30 minutes Ages 10+

Introduction

After years of gazing at the stars in your backyard, you've finally been granted five weeks of dedicated time with the telescope at your local planetarium. Determined to make the most of it, you've pledged to spend the time mapping Mihi Anguli, an obscure and uncharted patch of the night sky. Along the way you'll gain experience, learn new abilities, and acquire supporters to help you. Carpe noctem!

Components

- · 2 pages of rules
- 2 game pages (per player)
- 4 standard 6-sided dice (per player)
- 1 pencil or pen (per player)

NOTE: The following rules describe how to play as a solo player. Multiplayer differences are included at the end of these rules.

Setup

Set the two printed game pages in front of you. Place one die, showing a value of 1, on Sunday (on the schedule wheel). Set the other dice aside.

Goal of the Game

You have five weeks of game time (as tracked by the schedule wheel) to reach a high score. This score is achieved by filling in a large contiguous section of your Star Map, filling stars on your Star Map, completing articles, and gaining certain supporter bonuses. Once your five weeks end, compare your score to the ranks provided, or to a previous high score!

Symbols Used

0 0☆	Major, minor, and star points on the Star Map
♦☆□	Items filled to pay a cost of some kind
\diamond	Item filled when spending experience
☆	Item filled when spending stars
	Item filled when spending squares
\triangle	Bonuses granted by RESEARCHER supporters

Plaver Turn

Every turn, you will take all four steps detailed here, in order.

1) Roll Dice

Roll your three ability dice. (Not your schedule die.) If you have acquired the PROMOTOR or MENTOR supporters, you may use them now.

2) Advance Schedule

Examine your ability dice and find the lowest value. Move your schedule die clockwise around the schedule wheel that number of days, onto what is now considered the "current" day. If this movement causes the die to move onto or past Sunday, the week ends. Otherwise, continue to the next step.

Whenever your week ends, examine the Articles table, specifically all of the items in the "cost" column that correspond to the week that is ending (as shown on the schedule die). If all of those items are filled,

you may circle one reward from the reward column. The possible rewards are:

- a numerical value, added to your score at end of game
- the ability to fill one non-star point on your Star Map.

Finally, whether or not you claimed a reward, increase the week number (shown on the schedule die) by one.

Example: Emily has rolled a 3 as her lowest ability die value, and advances her schedule die from Friday to Monday, thus ending the week. Her schedule die shows a value of 2, so she checks the "at end of week 2" row of her Articles table. All of the items there under "cost" have been filled, so she circles the "6" reward and will gain 6 bonus points at the end of the game. Finally, she increases her schedule die value from 2 to 3.

3) Spend Experience

Count the number of filled (i), (i), (i), (i), and (i) symbols on the current day. Add this number to the lowest die value on your ability dice to determine how much experience you may now spend.

To spend experience, select a \diamondsuit item with a value less than or equal to the amount of experience you may spend. (NOTE: Whenever you fill an item on the current day, its effect is not counted until your next turn.) Mentally subtract the number shown from your remaining experience, then fill that item in with your pencil. You may repeat this action until you choose to stop or have used all available experience.

Example: Maddy rolled 2, 2, and 5 on her ability dice, making her lowest value 2. The current day is Monday, where she has previously filled the item, the item, and one \bigtriangleup item (granted by a RESEARCHER supporter). Therefore, she has 5 experience to spend. She spends 3 of it on a ③ item above POSITIONING II, 1 on the ① item for the Week 2 Article, and 1 on the $\langle \mathbf{i} \rangle$ item on Friday.

4) Use Abilities

Use any number of available abilities by placing ability dice on them. Most abilities only require one die, while some require two. You may use as many abilities as you would like until you run out of dice or choose to stop. Each ability may only be used once per turn. POSITIONING I and PLOTTING I are the only available abilities to start; others may be acquired as the game goes on (see "Completing Costs").

Filling the Star Map

Most abilities allow you to fill points on your Star Map. Positioning abilities determine a major point on and around which you may fill empty points. Plotting abilities determine which of those points you may fill. Each ability (and supporter) is detailed later in these rules.

After filling a star point on your Star Map, you must immediately spend a star by filling in one 🏠 item on an article, ability, or supporter cost.

After filling one or more points (of any kind) on your Star Map, you must immediately check for completed squares, which occur when all four corner points of a square have been filled. (This will always be one major point and three minor and/or star points.) Connect the four corners of each square, then fill the squares in with your pencil. You must now immediately spend those squares by filling one or more \Box items on an article, ability, or supporter cost. You may "split" the available value, just like when spending experience.

Example: Dave uses an ability that fills some points on his Star Map, including a star point. He immediately spends that star to fill the Δ item in OPTIMIZING's cost. He checks to see if he has completed any squares on his Star Map, and discovers that all four corner points are now filled for two different squares. He fills those squares on his Star Map with his pencil, and now has two squares to spend on 🗌 symbols. He fills the 1 item in OPTIMIZING's cost and the 🔟 item in Week 4 of his Articles table.

Completing Costs

 $\langle \rangle, \langle \uparrow,$ and \square items for articles, schedule days, abilities, and supporters may be filled in any order.

Articles cannot be completed after the corresponding week has ended.

Once you have filled all items for a given ability or supporter, it is available to use for the rest of the game, even during the same turn in which you acquired it (exception: RESEARCHER supporters).

Game End

During the Advance Schedule step, if you increase the value of your schedule die to 6, your final turn has begun. Finish it as normal, then add up your score, which is a sum of:

- The number of filled squares in the largest contiguously filled section of your Star Map. (Squares may be either adjacent or diagonally adjacent to count toward this total.)
- The number of filled stars on your Star Map (even if not part of a square)
- Bonus values granted by successful articles (if the numerical value was selected for the reward)
- Bonus scores granted by the supporters PUBLISHER and HEADHUNTER

-Solo-Scoring Ranks				
Messier	0 - 9			
Ptolomy	10 - 19			
Brahe	20 - 24			
Copernicus	25 - 29			
Herschel	30 - 34			
Kepler	35 - 39			
Hubble	40 - 44			
Hipparchus	45 - 49			
Galileo	50+			

Abilities

POSITIONING I

All positioning abilities determine the major point (\bigcirc) on and around which you may fill empty points on your Star Map. Once you have used a positioning ability, you will use a plotting ability to fill points.

POSITIONING I allows you to position at a major point based on two coordinates, the values of which match the values on the ability dice used. See PLOTTING I, below, for an example.

POSITIONING II

Position at a major point using only one die. *Example: playing a die of value 4 on the ability would position you at the major point found at the coordinates 4, 4.*

POSITIONING III

Position at any major point found on a coordinate equal to the value of the die used. *Example: playing an ability die with value 3 would position you at any one of the following points:*

3, 1 3, 2 3, 3	3,4 3,5	3, 6 1, 3	2,3 4,3	5,3 6,3
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POSITIONING IV

Allows you to position at any major point of your choice. Both dice must be placed in order to use this ability. The values of the dice do not matter.

PLOTTING I

After using a positioning ability to determine a major point, a plotting ability allows you to fill that point and/or the points surrounding it.

PLOTTING I allows you to fill points on based on the layout of pips shown on the die used. The center pip of the die matches the major point to which you have positioned, and the other eight pip positions surrounding it match the eight minor (or star) points surrounding the major point.

For purposes of determining the pattern to use, the plotting die may be freely rotated in increments of 90 degrees (or 45 degrees, if you have the MATHEMATICIAN supporter).

Example: Katie rolls 2, 3, and 5 as her ability dice. Using POSITIONING I and PLOTTING I, she has three options:



PLOTTING II

Plot on a position point, using both possible layouts of the plotting die.

In Option 3 of the PLOTTING I example above, if Katie had instead used PLOTTING II, she would have used both layouts shown, for a total of four points (all four points diagonally adjacent to the major point).

PLOTTING III

Fill a number of points adjacent or diagonally adjacent to the major point, but not the major point itself (unless you have also acquired the COORDINATOR supporter). The number of points that may be filled is equal to the value of the die being used for this ability.

PLOTTING IV

Fill the major point and all eight adjacent or diagonally adjacent points. Both dice must be placed in order to use this ability. The values of the dice do not matter.

RECORDING

Fill the leftmost unfilled item on any article (for a week that has not already ended). The value of the die used does not matter.

OPTIMIZING

Fill one \bigtriangleup or 1 item. The value of the die used does not matter.

STUDYING

Immediately spend experience equal to the value of the die used. (Leftover experience from Step 3: Spend Experience cannot be applied.)

PLOTTING V

Fill one \bigcirc or \bigcirc point on your Star Map. Unlike other plotting abilities, no accompanying positioning ability is needed. Both dice must be placed in order to use this ability. The values of the dice do not matter.

Supporters

PROMOTER

After rolling dice but before advancing the schedule die, check to see if your lowest-valued ability die is 1. If so, fill the leftmost unfilled item on any article (for a week that has not already ended).

MENTOR

After rolling dice but before advancing the schedule die, check to see if your lowest-valued ability die is 3 or greater. If so, move your schedule die back one day before moving it forward again as part of the normal "Advance Schedule Die" action. Moving backwards to Saturday and forward again to Sunday does not trigger the usual end-of-week effects.

RESEARCHER

When acquired, fill one of the \triangle symbols on the inside of the schedule wheel for each day, as a reminder of the extra experience gained each turn. (The \triangle symbol on the supporter is a reminder of this.) This experience does not apply to the turn in which RESEARCHER was acquired.

MATHEMATICIAN

When using PLOTTING I with a die valued 2, 3, 4, or 5, you may rotate the die in 45 degree increments, opening up new possible pip layouts.

Die	Layout	Die	Layout
\bigcirc	○ ● ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○		 • • • • • • • • • • • •
	○ ● ○ OR ● ● ● ○ ● ○ OR ● ● ●		

COORDINATOR

When using PLOTTING I, II, or III, you may always fill the major (center) point. If using PLOTTING III, this is in addition to the E number of points you are already filling.

PUBLISHER

Add 1 point to your score at the end of the game for each completed article. Add 3 points for each schedule day with all four items ($\langle , \rangle, \langle \rangle, \langle , \rangle, \langle \rangle, \langle$

HEADHUNTER

Add 1 point to your score at the end of the game for each ability or supporter you have acquired. POSITIONING I and PLOTTING I do not apply.

Multiplayer Rules

Every player is given their own sheets, pencil, and dice. All players take the first turn simultaneously, waiting for each other to finish before continuing to the next turn. Repeat for future turns.

All information on players' sheets is public knowledge. If more than one player wants to see what another will do before making a decision, those players should hide their sheets until finished with that decision.

The game ends when all players have finished their five weeks. It is common for some players to finish before others; they should simply wait patiently for other players to finish.

At game end, all players should review each article, ability, and supporter. For each that was only completed/acquired by one player, that player takes one extra bonus point.

The player with the highest score wins! Ties are broken by the player with the most filled stars on their Star Map. Further ties represent a shared victory.



