

the Transit of VENUS

2-4 Players • 30 min • Ages 10+

"We are now on the eve of the second transit of a pair, after which there will be no other till the twenty-first century of our era has dawned upon the earth, and the June flowers are blooming in 2004... What will be the state of science when the next transit season arrives God only knows. Not even our children's children will live to take part in the astronomy of that day. As for ourselves, we have to do with the present."

- Astronomer William Harkness, 1882

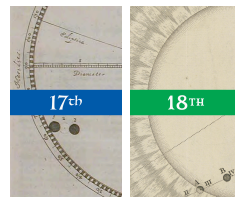
Components



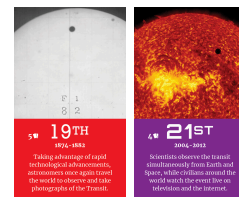
Transit Deck
(32 Poker Cards)



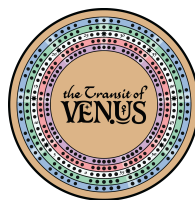
Setback Deck
(8 Tarot Cards)



4 Milestone Decks
(28 Tarot Cards)



Century / Era
Reference Cards
(6 Tarot Cards)



Game Board



5 Markers

Overview

The Transit of Venus is a rare celestial event where Venus crosses between Earth and the Sun, visible only with a telescope. Since the 1600s, scientists have used these transits to study our solar system, using their observations to measure its size and further our understanding of exoplanet research.

You will each represent a Century (17th, 18th, 19th and 21st) that observed the transit, working cooperatively and building off the achievements of your predecessors to prepare for and study this remarkable occurrence.

However, if you can't keep up with the advancing Hourglass marker, your efforts will fall short, and you'll fail to witness a once in a lifetime event. Will you witness The Transit of Venus, or will it fall to the next century to observe and document this celestial wonder?

Objective

To win, the marker for each Century must be equal to or ahead of the Hourglass marker at the end of an Observation phase.

If this is not accomplished before the Setback deck runs out of cards, or if the Hourglass marker reaches or exceeds 60 points, the players will collectively lose.

Key Concepts

Cribbage

The Transit of Venus is based on cribbage, a classic card game that - like the Transit of Venus - was first observed in the 17th Century. The game is easily recognizable due to the distinctive board and pegs used to track score between hands. In games with four players, partners can be used to score cooperatively while competing against the other two players.

Each hand of Cribbage typically plays across three phases. First, players choose cards to add to a common hand called "The Crib", which will score for the dealer. Then, players alternate playing cards from their hand, summing the total as they go, to score points. Finally, each player shows their hand and scores points based on its composition. In addition, the dealer gets to score "The Crib".

Unlike in standard Cribbage, in The Transit of Venus players will try to limit the points scored by "The Crib" - here called the Tableau - and score only while playing to the table. Players will not show and score their own hands, and will work as a team with every player, not just a partner.

Cooperation

This is a cooperative game, so you win or lose as a team and must work together to help each other reach your goals. Unlike in standard cribbage, you will want to set up other players to score points while working together to limit the number of points scored by the Tableau.

Communication

During the Research and Advancement phases, you may not talk about the cards in your hand or in the tableau (faceup or facedown) with your fellow players.

You may not:

- Point out cards someone might want to play.
- Gesture towards a card in the tableau.
- Audibly groan as someone plays a card you don't want them to.

You may:

- Point out missed points if a player fails to notice they have scored something.
- Describe what a Milestone card does when you play it.
- Audibly groan as you count the Tableau's score.

During the Observation phase, you may communicate freely and discuss strategy for the next Round, including discussing Milestone cards you could potentially play.

The Cards

Cards are ranked 1-8 in four different suits (Aces have a rank of 1).

Runs take place within the following order, and do not wrap around: A 2 3 4 5 6 7 8

Setup



1. Determine the first player, and distribute the Reference Cards clockwise in ascending order (17th → 18th → 19th → 21st) starting with the first player.
 - a. For a three player game, do not use the 21st Century card.
 - b. For a two player game, refer to the **Era Variant** at the end of the rulebook
2. Place the Game Board near the center of the table, and place the four Century markers in the 0 space on each matching row on the Game board.
3. Place the Hourglass marker in the 10 space of its matching row.
4. Shuffle the Transit Deck and place it in the center of the table, leaving space around it for the Tableau.
5. Shuffle and place the four individual Milestone decks near the center of the table.
6. Shuffle the Setback Deck and place it near the center of the table.
7. Draw the top card of the Setback Deck, and read its effects aloud.

Playing the Game

Each round is split into three phases: **Research**, **Advancement** and **Observation**.

1. Research



1. The 21st Century player deals cards to each player, starting with the 17th Century, as indicated on their reference cards:

17th: 6 Cards

18th: 5 Cards

19th: 5 Cards

21st: 4 Cards

In a three player game, do not deal cards for the 21st Century.

2. Then, starting with the 17th Century, each player will place cards faceup in the Tableau:

17th: 2 Cards

18th: 1 Card

19th: 1 Card

21st: 0 Cards

3. Draw the top card of the Transit deck, and place it face up above the Tableau as the **Sun** card. It will be combined with the Tableau during Observation, but cannot be traded with in the same way that cards in the Tableau can.

2. Advancement

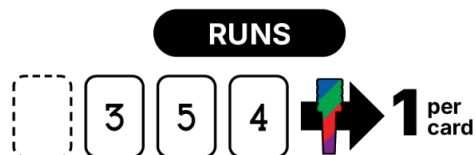
Starting with the 17th Century, players will take turns playing cards faceup in front of them, summing the values of all cards currently played. They should announce the new total out loud to the table.

The running total of cards may never exceed 31. If you are out of cards, or can only play a card that would exceed 31, you must instead say "Pass".

If 31 is reached, or all players say "Pass", discard all played cards and begin again, starting to the left of the last player to play a card.

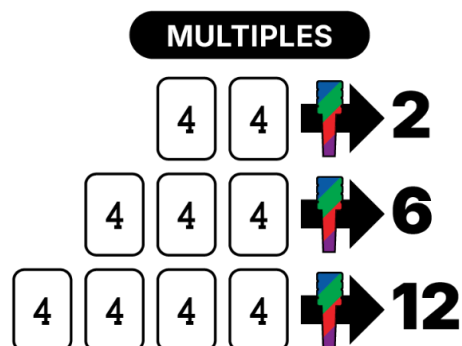
Scoring

After you play a card, you may score for the following:

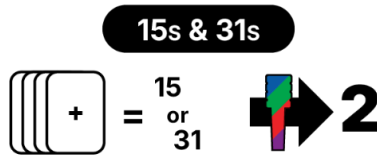


3 or more cards in a row that can be rearranged to form a straight score 1 point per card.

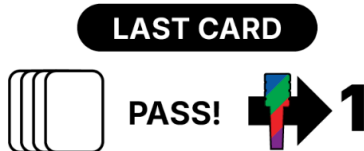
IMPORTANT: Runs may be scored out of order unless they have been interrupted by another card. For example, 5 6 8 7 would be a four card run, and score four points. 8 7 7 6 would not form a run, because it is interrupted by the second 7.



2, 3 or 4 cards in a row that have the same Rank score 2, 6, and 12 points respectively.



If your card brings the sum to exactly 15 or 31, score 2 points.



If your card did not bring the sum to exactly 31, but all players (including yourself) said “Pass” and were unable to play another card, score 1 point.

When you score, Advance your current Century’s marker that many spaces.

- If you reach or pass a Milestone space, draw a Milestone card from your current Century’s corresponding deck.
- If you pass the 60 point marker, you may flip your current Century Reference Card to indicate you have passed 60 points

Trading with the Tableau

On your turn, instead of playing a card from your hand you may play one of the faceup cards in the Tableau. If you do, replace it with a facedown card from your hand. You may not trade with the Sun card.

Playing Milestone Cards during Advancement

Some milestone cards may be played during Advancement. You may play a Milestone card even if you have no cards in your hand, as long as it does not cause the total to exceed 31.

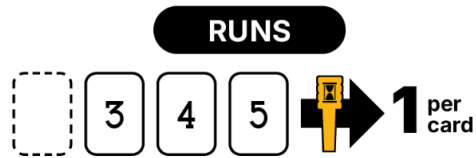
Playing a Milestone card is optional - if you have only Milestone cards in your hand, you may still say “Pass”, even if the card can be played.

Ending Advancement

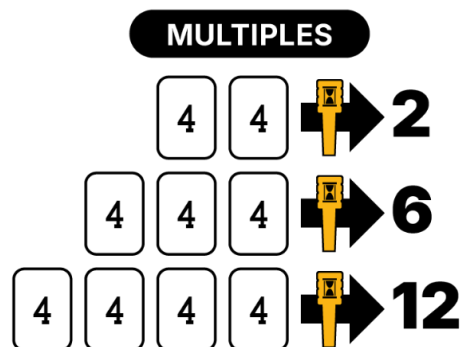
Once all non-milestone cards have been played, Advancement ends and the Observation phase begins.

3. Observation

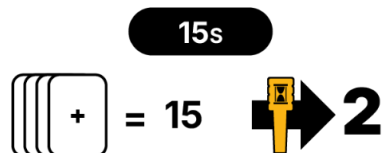
Reveal all cards in the tableau and combine them with the Sun card to form a five card hand.
Score for the following:



3 or more cards that can be rearranged to form a straight.



2, 3 or 4 cards that have the same Rank.



Any combination of cards that can be added together to make a sum of 15.

*IMPORTANT: The same combination can be formed multiple times using different cards.
Ex: if there is a 6♥, 6♦, 9♠ and 9♣ in the tableau, it would form 4 different combinations
(9♠+6♥, 9♣+6♥, 9♠+6♦, 9♣+6♦)*

For each point scored by the Tableau and Sun card during Observation, move the Hourglass marker that many spaces.

End of Round Cleanup

Check for **Victory** or **Defeat**:

VICTORY: All Centuries have passed the Hourglass Marker

You have successfully observed the transit, and the players collectively win!

DEFEAT: The Hourglass Marker passes 60 points

DEFEAT: The Setback Deck is empty

You have failed to observe the transit in time, and the players collectively lose.

Otherwise:

1. Shuffle all cards back into the Transit deck
2. Pass the Century reference cards counter-clockwise
3. Reveal a new Setback card and read it aloud
4. Each player discards down to 4 Milestones
 - a. Any milestone cards still in a player's hand remain in their hand for future use.
5. Start a new round with the Research phase.

Milestones & Setbacks

Milestone Cards

Whenever you reach a Milestone space, draw a Milestone card from your current Century's corresponding deck.

Each Milestone card is unique, and will help you and your fellow players in some way. These cards should be kept in your hand until they are played, and once used will be discarded unless marked as "Ongoing".

You must discard down to 4 milestone cards when a round ends.

A full list of the Milestone cards from each century and their effects are located at the back of the rulebook.

Setback Cards

Each round will have a Setback card that affects the players negatively. Setbacks will last for the entire round, and will then be discarded.

A full list of the Setback cards and their effects is located at the back of the rulebook.

Card Anatomy

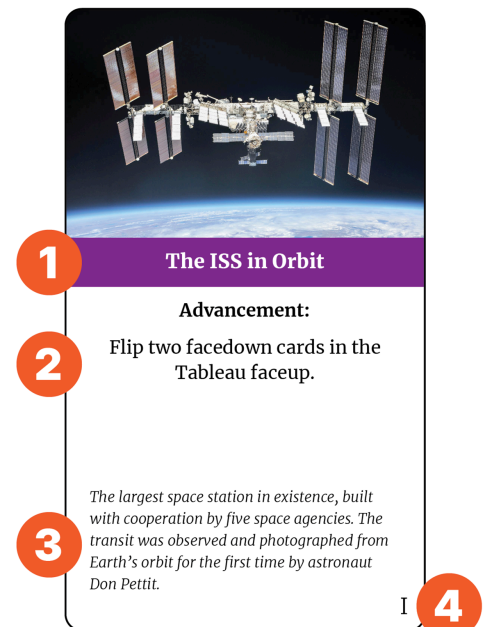
1. Name

2. Phase & Effect: The phase in which the Milestone card can be played, or when the Setback will take effect.

Some Milestones may have multiple effects. Milestone effects marked "Immediately" must be played as soon as they are drawn. All effects are one time use unless marked "Ongoing".

3. Historical Background

4. Number: For extra historical effect, you may set the Milestone and Setback decks in this order instead of randomly shuffling them. Use Setbacks 4-8 for a harder game.



Set Rounds Variant

If you'd like a set game length instead of a variable one, use these changes during **Setup**:

1. Choose what number of rounds you'd like to play (X)
2. Place X random Setback cards facedown near the center of the table to form the Setback Deck.
3. Place the Hourglass marker on the 0 point space with the rest of the Century markers

The game will end after X rounds, when the Setback Deck runs out of cards.

Victory: The marker for each Century must be equal to or ahead of the Hourglass marker at the end of the final Observation phase.

Defeat: If even one Century marker is behind the Hourglass marker at the end of the game, every player loses.

Ignore all other Victory or Defeat triggers.

Two Player Era Variant

Instead of using the four Century cards, give the first player the "Enlightenment Era" reference card and the second player the "Modern Era" reference card.

Use the following changes to the rules:

- Any card effects that mention the 17th or 18th Century will affect the Enlightenment Era player.
 - Use the 17th Century marker to mark your score.
 - When you reach a Milestone, draw a card from both the 17th and 18th Century deck, and choose one to keep.
- Any card effects that mention the 19th or 21st Century will affect the Modern Era player.
 - Use the 19th Century marker to mark your score.
 - When you reach a Milestone, draw a card from both the 19th and 21st Century deck, and choose one to keep.
- Card effects do not affect the same player twice. For example, a card that allows the 19th and 21st century player to draw a card will give the Modern player only one card.
- During Setup, remove Setback V from the Setback deck.
- During Research, both players draw 6 cards and pass 2 to the tableau.
- At the end of the round, pass the Era cards as you would pass a Century card.
- At the end of the game, both Eras must meet or exceed the Hourglass marker to win.

Historical Note

During historical observations of the Transit in the 18th and 19th centuries, expeditions were organized by colonial powers to parts of the world where the transit would be visible. These expeditions often disregarded the knowledge and contributions of indigenous peoples and local populations, who were instead taken advantage of and exploited. This game in no way seeks to celebrate those actions, the imperialistic mindsets behind them, or the personal beliefs of any individuals depicted or mentioned in this game.

For the scientists of that time, the Transit was an opportunity to set aside differences of nationhood and work together, cooperating with disregard for flags or borders to advance scientific knowledge. If that same spirit of shared humanity had been extended to those they disregarded and disenfranchised, who knows how much more could have been accomplished.

Credits

Designed by Nathan Fullerton

Graphic Design by Mac Fullerton

Playtesters

Bill Huffman	Andy Juell	Jaimie Konetchy
Brooks Barber	Angela Krone	Laura Smith
Eric Dittmore	Benjamin Cameron	Mac Fullerton
Gavin Pouliot	Camden Dyer	Matthew O'Brien
Greg Pool	Chris Mitchell	Meeple Lady
Harry Pouliot	Craig Fullerton	Patrick Hillier
Jason Katzwinkel	Derya Çebi	Tanner Simmons
Matthew Hocker	Eric Buscemi	Thomas B
Michael Byron Sprague	Grant Van Nostrand	Zachary Morris
Philip Erikson	Jchon Bahl	
Quan Truong	Mark Wilson	
Taran Harmon-Walker		
Xoe Allred		
Zachary Hoekstra		

Card Glossary

Setback Cards

Title	Phase	Text
Old Models Persist	Advancement	Runs may not be scored out of sequence.
Black Drop Effect	Research	Do not reveal the Sun card until Observation.
Cloudy Skies	Advancement	Cards with the same suit as the Sun card do not score any points when played.
The First Transit Occurs	Advancement	Multiples are worth half as many points as usual.
Non-Scientific Revolutions	Advancement	The first player to say "Pass" this round must discard the rest of their hand.
Outbreak of Yellow Fever	Advancement	For each 31 or Last Card, advance the Hourglass by 1 point.
The Unluckiest Astronomer	Advancement	Score on 13s instead of 15s.
The Seven Years War	Research	Add four random facedown cards to the Tableau. All players draw only 4 cards.

Milestone Cards (17th & 18th Century)

Title	Text
The First Telescopes	Anytime: All Players draw a card.
Stellae novae	Anytime: Discard the Sun card and reveal a new one.
Kepler's Model	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 1 of any suit.
Paired Transits	Immediately: Play in front of any Player. Ongoing: Whenever someone scores a Multiple involving one of your cards, you score it too.
Nos Keplari	Research: Choose another Player to show you their hand. Trade cards freely between your hand and their hand before starting Advancement.
Venus in sole visa	Start of Observation: Discard a card from the Tableau.
60 Million Miles	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a card of any rank and any suit.
Telescope Micrometer	Anytime: The 18th, 19th and 21st Century players all draw a card.
Cone of Visibility	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 5 of any suit.
Lomonosov's Arc	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 2 of any suit.
International Cooperation	Immediately: Play in front of any Player. Ongoing: Whenever you score a Run, everyone involved scores an additional point.
The Endeavour Sets Sail	Anytime: Discard the current Tableau and draw four new cards to replace it.
Learned Societies	Research: This round anyone may trade out the Sun card as if it was in the Tableau, replacing it with a facedown card from their hand.
The Astronomical Unit	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 8 of any suit.

Milestone Cards (19th & 21st Century)

Title	Text
Solving Longitude	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 3 of any suit.
The Heliometer	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 4 of any suit.
Congress Funds Expeditions	Start of Research: Each Player draws an additional 2 cards before passing to the Tableau. Each Player discards 2 cards before Advancement.
Photographic Plates	Immediately: Play in front of any Player. Ongoing: Whenever you score a 31 or Last Card, score an additional point.
Amateur Observers	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 7 of any suit.
Transit of Venus March	Anytime: The 19th and 21st Century players both draw a card.
Newcomb's Tables of the Sun	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a card of any rank and any suit.
The ISS in Orbit	Advancement: Flip two facedown cards in the Tableau faceup.
Hubble Space Telescope	Research: During Advancement, if anyone plays a card whose Suit matches the 2 or more cards that came before it, score 1 point per card in that uninterrupted sequence.
Venus Express is Launched	Anytime: Add a card from the Tableau to your hand. Replace it with a random card from the deck.
Exoplanet Research	Immediately: Play in front of any Player. Ongoing: Whenever Advancement reaches exactly 31, you score 1 point.
VT-2004	Anytime: Pass to a Player ahead of you in turn order. Advancement: Play this as a 6 of any suit.
The Transit is Live Streamed	Research: Choose a Player. This round, they play with their hand revealed.
Simultaneous Observation	Start of Advancement: Any Player may swap their hand with the Tableau