

TEACHER'S GUIDE TO *STARMAN JONES* **BY ROBERT A. HEINLEIN**

Contents:

- recommended reading levels
- Heinlein biographical material and links
- background of the book and plot summary
- character sketches
- chapter guides include a more detailed plot summary and may also include some of the following:
 - Prepare to read...
 - vocabulary
 - focus questions or initiating activity
 - plot summary
 - quiz/reading comprehension questions—multiple choice/short answer questions to testing reading comprehension
 - reflection and discussion questions—may be used to initiate classroom discussion, as short writing assignments, or as test questions
 - suggested activities/inquiry-based exploration—suggestions for activities and projects

Recommended reading levels: Heinlein's young adult or "juvenile" fiction appeals to readers of many ages, from early middle-school readers to adults, and much of his earlier work can also be read by young adults although they were originally marketed to older readers. For use in the classroom, *Starman Jones* is probably most appropriate for readers in grades 5-10. *Starman Jones* has been listed on several recommended reading lists for children and young adults, including The Golden Duck Awards for Excellence in Children's Science Fiction recommended reading list (<http://www.sff.net/rff/readlist/goldduckrl.htm>).

Biographical information on Robert Heinlein:

Robert Anson Heinlein is considered to be one of the best, if not the best, writers of science fiction of all time. He was a prolific, commercially and critically successful, and at times controversial, contributor to the genre. He was born in Butler, Missouri on July 7, 1907, and graduated from the United States Naval Academy in 1929. Heinlein served in the Navy until 1934, but was forced to retire because of tuberculosis. After a few failed business and political ventures, he decided to try writing and sold "Lifeline", a short story, in 1939 to *Astounding Science Fiction*, which was a "pulp" magazine. These were periodicals published on cheap (pulp) paper that catered to popular tastes for genre fiction (mystery, romance, detective, adventure, horror and science fiction). He was a regular contributor to science fiction pulp magazines for the first several years of his career. He hit his stride as a novelist after World War II, publishing fourteen "juvenile"

novels aimed at the young adult market as well as many novels for adults. Some of his most popular works are *Double Star* (1956), *The Door into Summer* (1957), *Stranger in a Strange Land* (1961), *The Moon is a Harsh Mistress* (1966), and *Time Enough for Love* (1973), and four of his novels won the Hugo Award, which is presented at the annual World Science Fiction Convention. Heinlein wrote the screenplays for two movies: *Destination Moon* (1950) and *Project Moonbase* (1953), and two of his novels have been adapted into films: *The Puppet Masters* (book, 1951; film, 1994) and *Starship Troopers* (book, 1959; film, 1997). His novel *Space Cadet* (1948) also inspired the television show *Tom Corbett, Space Cadet* (1950-1955). Heinlein died in Carmel, California on May 8, 1988. For more biographical details, see the following articles:

- The Robert Heinlein Society offers a biographical essay by William H. Patterson, Jr. (*The Heinlein Society*, <http://www.heinleinsociety.org/rah/biographies.html>) and further information about Heinlein's life and work (*The Heinlein Society*, <http://www.heinleinsociety.org/rah/FAQrah.html>).
- Carlos Angelo, "Heinlein," *Robert A. Heinlein: Dean of Science Fiction Writers*, <http://www.wegrokit.com/bio.htm>

Suggested class activity: Have your students read the information on Heinlein above before they begin the book.

For further information on Heinlein and his work:

- The most current and extensive website dedicated to Heinlein is that of The Robert Heinlein Society (<http://www.heinleinsociety.org/>). In addition to the biographical information linked above, the Society website includes news, essays, forums and many other interesting areas to explore.
- Another useful website is *RAH: The Robert A. Heinlein homepage* by James Gifford (<http://www.nitrosyncretic.com/rah/>). Although this web site is not currently being updated, it contains useful FAQs, essays and links on Heinlein's life and work.
- Another website that is not currently being updated, but which provides some interesting essays and biographical information is *Robert A. Heinlein, Dean of Science Fiction Writers* (<http://www.wegrokit.com/>).
- There are several critical studies of Heinlein's work that available in book form. The first and still one of the best is *Heinlein in Dimension* by Alexei Panshin (Chicago: Advent: Publishers, Inc., 1968). Panshin devotes over one page to *Starman Jones* and refers to it elsewhere in the book. A study that focuses exclusively on Heinlein's young adult fiction is *Heinlein's Children: The Juveniles* by Joseph T. Major (Chicago: Advent: Publishers, Inc., 2006). There is a chapter on every Heinlein book that can be classified as "young adult", including *Starman Jones*, and Major contrasts and compares them with each other as well as Heinlein's other work. Another critical study that discusses *Starman Jones* is *Robert Heinlein* by Leon Stover (Boston: Twayne Publishers, 1987).
- The Baen edition of *Starman Jones* includes an introduction by William H.

Patterson, Jr. in which Patterson compares Max Jones, the title character in *Starman Jones* to Holden Caulfield in J.D. Salinger's *The Catcher in the Rye* and the protagonists of the novels of Horatio Alger. Patterson also reports that Heinlein based the basic plot on an historical incident from the 19th Century and that Max's stepfather is based on a man that Heinlein knew and disliked. Patterson has also written the first volume of a two part biography of Heinlein, *Robert A. Heinlein* (2011), which does not discuss *Starman Jones* directly, but does describe Heinlein's naval career in great detail, providing valuable background information about the novel.

- The Baen edition also includes an afterword by Michael Z. Williamson in which Williamson explains why *Starman Jones* still holds up more than 50 years after publication.

Background: Heinlein wrote *Starman Jones* in 1953, and Scribner's published it in hardcover the same year.

Plot Summary: Max Jones is living on the farm of his deceased parents when his stepmother marries an abusive man. Max immediately runs away from home in the hope of joining the Astrogator's Guild and traveling to the stars. Along the way, he meets Sam, whom he eventually finds to be a thief, a con artist, and the best friend he will ever have. Sam robs Max of important books owned by Max's uncle, an astrogator. Max makes his way to Earthport, where he learns that he cannot join the guild, because it is hereditary. Max meets Sam again, who persuades him to participate in a scam in which they both obtain false documents and join the crew of a starship. Starting out by taking care of animals in the cargo, Max becomes friends with a teenage girl named Ellie and is promoted to the control room, where he becomes an apprentice astrogator. After the head astrogator dies of a heart attack, his successor and the captain make a critical error during the transition to light speed, and the ship becomes lost. After landing on an Earth-like planet, Sam and Ellie are captured by the native species. Sam rescues them but dies in the process. Meanwhile, both the new astrogator and the captain, leaving Sam the only person on the ship qualified to command it. The ship lifts off in an attempt to go home.

Characters:

- **Maximilian Jones, aka Max**, is a teenaged farm boy living in Ozark Mountains of Arkansas at the beginning of the story. Both of his biological parents are dead.
- **Nellie Jones Montgomery, aka Maw**, is Max's stepmother.
- **Biff Montgomery, aka Monty**, is Nellie's new husband. So far as Max knows, Monty does not have a regular job.
- **Sam, aka Sam Roberts, aka Sam Richards, aka Sam Anderson** is a fellow traveler that Max meets when he runs away from home. Max learns that Sam was raised in an orphanage and eventually deduces the Sam was once an Imperial Marine.
- **Red** is a truck driver who gives Max a ride.
- **High Secretary Witherspoon** is the highest ranking official in the Astrogator's

Guild.

- **Eldreth Coburn, aka Ellie**, is a teenaged passenger on the *Asgard* and owns a spider puppy from the planet Hespera.
- **Mr. Chips** is Ellie's pet spider puppy.
- **Captain Blaine** is the captain of the *Asgard*.
- **Dr. Hendrix** is the chief astrogator (astronaut-navigator) of the *Asgard*. He was once the assistant of Chester Jones, Max's uncle.
- **Randolph Simes** is the assistant astrogator of the *Asgard*.
- **Computerman Second Class Lundy** is a member of the control room staff of the *Asgard*.
- **Chief Computerman Kelly** is head of the computer department and also a member of the control room staff of the *Asgard*.
- **Mrs. Maggie Daigler** is one of the passengers on the *Asgard*.
- **Mr. Daigler** is Maggie's husband, a businessman traveling on the *Asgard*. His father was a farmer.
- **First Officer Walther, aka Dutch** is second-in-command of the *Asgard*, except for the control room and engineering departments, which report directly to the captain.

CHAPTER SUMMARIES

Chapter I—The Tomahawk

- prepare to read:
 - vocabulary
 - zoology
 - tripods
 - antenna
 - horizontal
 - maximum
 - deviation
 - receptor
 - ballistic
 - Focus question/initiating activity: Max wants to leave his family's farm and travel to the stars. Ask the students whether they also want to travel to the stars.
- Chapter summary: In this chapter, the reader is introduced to Max, Nellie, his stepmother, and Monty, her new husband and learns that Max's biological parents are both dead. Max had an Uncle Chet who was an interstellar astrogator (astronaut-navigator), but who is also deceased. The reader learns that Max wants to leave the farm for a career in outer space and that the only reason he has not already left is that he promised his late father that he would look after Nellie. However, when Nellie comes home with a new husband, he considers himself no longer bound by that promise. Another factor is that Monty announces that he has sold the farm so Max has no place to live. Monty was a man that Max knew and

avoided because Monty was known to be violent. Within a few hours of coming home with Nellie, Monty threatens Max, but Max hides out on the farm. Max then decides to run away from home before Monty kills him or Max is forced to kill Monty in self-defense. Max sneaks back into the house after Nellie and Monty go to bed and quietly packs a rucksack with clothing, Uncle Chet's circular astrogation slide rule, a piece of lunar rock that Uncle Chet has once given him, his identification card, and toiletries. He also packs a set of books he inherited from Uncle Chet. He has no cash so he has to set out without any money. He exits the house without disturbing Nellie and Monty.

- quiz/reading comprehension questions:
 1. What is the subject of the book that Max is reading at the beginning of the story?
 - (a) Astronomy
 - (b) Physics
 - (c) Mathematics
 - (d) Extraterrestrial zoology
 2. When the reader first meets Max, he has just
 - (a) Cooked supper
 - (b) Plowed a field
 - (c) Fed the hogs and chickens
 - (d) Watched a program on television
 3. Nellie is
 - (a) A newly remarried widow
 - (b) A doctor
 - (c) An engineer
 - (d) A bus driver
 4. When does Max know he is in trouble?
 - (a) When Monty beats him up
 - (b) When Nellie introduces Monty as her new husband
 - (c) When Monty gets drunk

Answers: 1-d, 2-c, 3-a, 4-b

- Suggestion for reflection and discussion: Max's world has daily flights between the Earth and the Moon, but his house does not have running water and he has to use farm animals to plow the fields. Ask the students if this is a future they would like to live in.

- Suggested activities/inquiry-based exploration: Max sees a supersonic train and hears a sonic boom. Have the students research the sound barrier and the flight of Chuck Yeager and the X-1 plane that broke it.

Chapter II—Good Samaritan

- prepare to read:
 - vocabulary
 - maintenance
 - hemorrhage
 - watershed
 - obsolete
 - focus questions or initiating activity: Max does not have a GPS, so he uses the planet Mars, the star Vega, and the constellation The Big Dipper to find his way. Discuss how people have used the stars to navigate in the past.
- Chapter summary: Max heads for the train tracks that are close to his home and follows them. At one point, he enters a train tunnel, but after walking for fifty yards, he gets scared and runs the rest of the distance. This is fortunate, because a train comes through just after he exits. If he had still been in the tunnel, he would have been killed. As it was, the train's shock wave causes him to become temporarily deaf. He finds a road and follows it. Eventually, he comes across a man cooking a stew. The man invites Max to join him and introduces himself as "Sam". Max was hungry so the stew tasted delicious. They talk after supper and Max tells Sam his story. He also shows Sam Uncle Chet's books, and Sam recognizes them as astrogation textbooks. Max then goes to sleep. When Max wakes up, he discovers that Sam has left and has stolen his books and his identification card.
- Quiz/reading comprehension questions:
 1. When Max and Sam talk after supper, what do they discuss?
 - (a) Baseball
 - (b) Whether Monty had the legal right to sell Sam's farm
 - (c) Train schedules
 - (d) The art of cooking
 2. Where did Sam spend his childhood?
 - (a) In a beachside resort in Florida
 - (b) At a ski resort in the Himalayas
 - (c) The Central Jersey Development Center for State Children

(d) On a space station orbiting Saturn

3. Sam learns a lot about Max, but what does Max learn about Sam, besides where he spent his childhood and that he can cook?

- (a) Nothing
- (b) His military service
- (c) His criminal record
- (d) His plans for the future

Answers: 1-b, 2-c, 3-a

- Suggestion for reflection and discussion: Trains are still in use in Max’s future, although they are much faster than the ones we have today. Ask the students if any of them have ever ridden on one.
- Suggested activities/inquiry-based exploration: Sam refers to the astrogation and plumber guilds. Have the students research the history of guilds.

Chapter III—Earthport

- prepare to read:
 - vocabulary
 - deceleration
 - compartment
 - repulsion
 - inverse
 - abaft
 - application
 - impersonate
 - Focus question/initiating activity: Earthport is a city built around a spaceport. Ask the students if any of them have ever been inside an airport or in a large ship harbor
- Chapter summary: Max walks to a nearby highway where he finds a truck stop. Initially, he is unable to hitch a ride with anyone, but then one truck driver named “Red” notices him and figures out his predicament. He treats Max to breakfast and offers him a ride to Earthport in exchange for some help. Truckers are prevented by law to drive more than eight hours per day. Red asks Max to pretend to be a trucker so he can get more hours on the road. Max agrees and also helps Red with loading and unloading. They arrive the next day and separate after Red treats Max to another meal. Max walks around the city and sees his first live extraterrestrial. He also gets a glimpse of the spaceport, where he sees moon shuttles, orbital shuttles, freighters, and the starship *Asgard*. He asks a police officer for directions to the Astrogator Guild Hall and arrives there by the end of

the chapter.

- quiz/reading comprehension questions:
 1. Why is Red driving alone?
 - (a) He prefers it.
 - (b) His partner got drunk, and Red had to leave him behind.
 - (c) He murdered his partner.
 2. What is the cruising speed of Red's truck?
 - (a) Two hundred miles per hour
 - (b) Fifty-Five miles per hour
 - (c) Faster than the speed of sound.
 - (d) Faster than the speed of light.
 3. The extraterrestrial that Max sees is the native of what planet?
 - (a) Mars
 - (b) Vulcan
 - (c) Tatooine
 - (d) Epsilon Gemini V

Answers: 1-b; 2-a; 3-d

- Suggestion for reflection and discussion: Max hitches a ride to Earthport. Wasn't this dangerous?
- Suggested activities/inquiry-based exploration: There are still trucks hauling freight in Max's future. Have the students research the history of the trucking industry.

Chapter IV ---- The Astrogators's Guild

- prepare to read:
 - vocabulary
 - lavish
 - austerity
 - mammoth
 - nomination
 - masseur
 - memorandum
 - pompous
 - exoskeleton

- Chapter summary: Max enters the Astrogator's Guild Hall and after seeing a receptionist and two lawyers, he is admitted to the office of the guild's High Secretary, its highest ranking official. The High Secretary knew Max's Uncle Chet personally, but informs him that Uncle Chet had never designated Max as his official heir so Max can never become an astrogator. He also informs Max that a man with Max's identification card and Uncle Chet's books had already visited the guild hall but left hurriedly when the guild attempted to confirm his identity. After confirming Max's identity, the High Secretary returns Max's ID to him, but keeps Uncle Chet's books. He explains that the books were not Uncle Chet's to give but rather the property of the guild. He does, however, refund the deposit the Uncle Chet provided when he received the books many years ago. For the first time in his life, Max has some cash in his pocket. The High Secretary also offers to pay for Max's apprenticeship in a non-hereditary guild, but Max turns him down. After leaving the guild hall, Max sees Sam hanging around. Although Max has the opportunity, he does not report Sam to the police. Instead, Sam charms him into sharing another meal with him.

- quiz/reading comprehension questions:

1. How does the High Secretary confirm Max's identity?

- (a) A retinal scan of Max's eyes
- (b) Max's thumb print
- (c) Max's DNA
- (d) Max's passport

2. Which of the following guilds are hereditary?

- (a) Plumbers
- (b) Metal smiths
- (c) Chefs
- (d) Tailors

3. How does Sam raise some cash?

- (a) He plays cards
- (b) He gets a job
- (c) He pawns his coat
- (d) He robs Max

Answers: 1-b, 2-a, 3-c

- Suggestion for reflection and discussion: In Max's world, everyone is required to have their fingerprints on file with the government and to have ID with them at all times. Ask the students if they would like to live in a world like that.

Chapter V—“...your money and my know-how...”

Prepare to read:

- vocabulary
 - differential
 - equation
 - amateur
 - hydroponic
 - incarceration
- Focus questions/initiating activity: Sam has shown that he is both a thief and a con artist. Why should Max trust him?
- Chapter summary: While they are still in the restaurant, Sam quizzes Max about his knowledge of life on a spaceship. Fortunately, Max has read a lot about space flight and spent many hours listening to his Uncle Chet talk about traveling in space. When Max tells Sam the exact amount of money the guild gave him for returning Uncle Chet’s books, Sam devises a plan for getting them off the planet. Max then reveals that he has total recall of everything he has ever read, including the content of Uncle Chet’s books. Sam rents a room for him and takes all of Max’s money to put his plan in motion. One aspect of his plan is that he disguises Max to look ten years older so that he can pass as a journeyman spaceman. Then he obtains fake IDs and other documents for them. Finally, he brings Max a copy of a manual for Max to read. Sam’s plan is for them to sign on as crewmembers of the starship *Asgard*.
- quiz/reading comprehension questions
 1. Does Max have a photographic memory?
 2. What guild are Max and Sam going to pretend to be members?
 - a. Astrogators
 - b. Space Stewards, Cooks, and Pursers
 - c. Engineers
 - d. Chartsmen and Computers

Answers: 1-No. He actually has to read a page of a book to recall it. 2-b.

- Suggestion for reflection and discussion: Sam compares life on Earth to being in prison. Is this fair?
- Suggested activities/inquiry-based exploration: Sam comments that “everybody”,

excepting people like Max, have been to the Moon. As of 2012, only twelve people have walked on the Moon. Have the students research the history of the Apollo program.

Chapter VI—“Spaceman” Jones

- prepare to read:
 - vocabulary
 - bailiwick
 - auxiliary
 - flora
 - fauna
 - caviar
 - clandestine
 - prerogative
 - Initiating activity: Ask if any of the students had ever sailed on a cruise ship and how it differed from the *Asgard*.
- Chapter summary: At Sam’s insistence, he and Max board the *Asgard* at the last possible moment. This minimized the number of questions they would be asked by the busy officers. After signing in, they settle into their bunks and eat lunch. Lift-off was so smooth that Max only noticed because he became dizzy for a moment. The *Asgard* carries live animals, which include one extraterrestrial animal, Hereford cattle, pigs, chickens, sheep, goats, llamas, dogs, and cats. Ship cats were allowed to run loose to minimize the rodent population, but otherwise all animals were confined, even the pets of the passengers. Max’s job is to take care of them.
- quiz/reading comprehension questions:

1. Max and Sam discuss their future plans, because eventually someone will discover that their documents are forgeries. What does Sam plan to do?

2. The captain of a starship must be a member of which guild?

Answers: 1— Sam plans to jump ship when it stops at the planet Nova Terra. 2— Only a member of the Astrogators Guild can become the captain of a starship.

- Suggestion for reflection and discussion: Although Sam has decided what he will do in the future, he discusses several options with Max. Ask the students what Max should do.

- Suggested activities/inquiry-based exploration: This novel assumes that human beings will eventually discover and colonize earth-like planets. Have the students research recent discoveries of earth-like planets by astronomers.

Chapter VII—Eldreth

- prepare to read:
 - vocabulary
 - amphibian
 - Focus question: Ask the students whether any of them have exotic pets.
- Chapter summary: While Max is working, the one extraterrestrial animal for which he is responsible, a female spider puppy from the planet Hespera misnamed Mr. Chips, looks at him and says hello. Max responds in kind to which Mr. Chips responds that she wants out of her cage. The spider puppy keeps repeating her request and sounds so human that Max relents and finally lets her out. Mr. Chips then asks for candy. When it is time for Mr. Chips to return to her cage, she runs around for twenty minutes until she is so tired that stops resisting. Every day after that Max has to let Mr. Chips out for a spell and Mr. Chips learns Max's name. After a week, Max gets to meet the owner of Mr. Chips, a teenage girl named Ellie Coburn. Mr. Chips introduces them to each other. On one of her subsequent visits, Ellie notices that Max has a three-dimensional chess set. At her request, he teaches her to play. She also asks about the ship's method of faster-than-light travel. Max gives her (and the reader) a brief explanation in English without mathematics.
- quiz/reading comprehension questions:
 1. How many legs does Mr. Chips have?
 - (a) four
 - (b) six
 - (c) eight
 2. What piece in three-dimensional chess corresponds to the king in the one-dimensional version?
 - (a) The Robot Freighter
 - (b) The Starship

(c) The Imperial flagship

Answers: 1-b, 2-c

- Suggestion for reflection and discussion: Explain to the students how vast the distances are between the planets and between the stars and why some method of faster-than-light travel is essential to the story.
- Suggested activity/inquiry-based exploration: Max mentions Einstein when he explains faster-than-light travel to Ellie. Have the students research Einstein's General Theory of Relativity.

Chapter VIII—Three Ways to Get Ahead

Prepare to read:

- vocabulary
 - transition
 - reveille
 - trajectory
 - light-year
- Focus question/initiating activity: Sam thinks that Max has made friends with Ellie in the hope that she will fall in love with him. Then Max can marry her for her money. How does Max really feel about Ellie?
- Chapter summary: Max sleeps through the ship's first transition to faster-than-light speed. By the time he wakes up, the *Asgard* has traveled over sixty light-years. While he is changing the cat litter nearest the observation lounge, he sneaks a look at the new field of stars. He continues to play chess with Ellie and learns that she does not like the Earth or the schools she has attended there. He learns from Sam that her father is a very important man in the human empire. One day Ellie asks Max about his Uncle Chet. The following day, he is ordered to report to the captain's cabin. With Captain Blaine are the Purser, First Officer Walther, and Chief Astrogator Hendrix. The captain asks Max if he would like to try to become a chartsman. Max jumps at the opportunity to advance.
- quiz/reading comprehension questions
 1. What is the current position of Ellie's father, Sir John Fitzgerald Coburn?
 2. What does Max's fake record say he did on the starship *Thule*?

Answers: 1- Ellie's father is currently ambassador to Hespera and Resident Commissioner Plenipotentiary of the human empire 2—According to Max's fake record, he tried out for the position of chartsman on the *Thule*.

- Suggestion for reflection and discussion: Should Max have accepted the promotion? It is a great opportunity for him, but it also will expose his fake record to close scrutiny.
- Suggested activities/inquiry-based exploration: Have the students calculate how far sixty light-years are in miles.

Chapter IX—Chartsman Jones

- prepare to read:
 - vocabulary
 - parallax
 - stereograph
 - firmament
 - chronometer
 - logarithm
 - binary
 - Focus question/initiating activity: Ask if any of the students have ever transferred to a school with higher academic standards or to a team in a more competitive sports league.
- Chapter summary: As part of his training, Max is put on a four hour on/four hour off watch rotation in the *Asgard's* control room. His first watch was under Assistant Astrogator Simes who has him make coffee and clean the control room. Lundy, a computerman, has him help adjust a few instruments. Max's other watches were under Hendrix and Chief Computerman Kelly. (Because there are only two astrogators on the *Asgard*, Kelly has to assume some of their duties.) Although Max is kept busier under the other two, he learns more during their shifts. One day during one of Kelly's watches, he inadvertently reveals that he knows more than he should, because of his total recall of the content of Uncle Chet's books. When Max goes off shift, he reports to Hendrix's cabin. Dr. Hendrix keeps a copy of Shakespeare's plays in his cabin and asks Max if he has read any of them. Max replies that he read two of them in school and a third, *A Winter's Tale*, on his own. Hendrix tests Max by reading the first part of a speech from that play, which Max finishes without an error.
- quiz/reading comprehension questions

1. How does the computer on the *Asgard* communicate with people?
 - (a) Fortran
 - (b) Microsoft Office
 - (c) DOS
 - (d) binary notation

2. When Max and Ellie meet in the hallway, why is she angry with him?
 - (a) Max has been too busy to spend time with her
 - (b) Max has been spending his free time with another girl on the ship
 - (c) Max tried to kiss her the last time they saw each other

Answers: 1-d, 2-a

- Suggestion for reflection and discussion: There is only one computer on the entire ship, and it is very different from the ones the students use. Explain how computers worked at the time Heinlein was writing.

Chapter X—Garson’s Planet

- Prepare to read:
 - vocabulary
 - miniature
 - certification
 - prerogatives
 - sanitation
 - tawdry
 - injunction
 - stencil
 - memorize
 - methane

- Chapter summary: While Max has been settling into his new duties, Sam has also been promoted to Chief Master-at-Arms, essentially the ship’s chief of police. Then the *Asgard* makes its first stop on Garson’s Planet. However, it is not a tourist destination, only a hub for trade. Nevertheless, it is the first foreign planet Max has ever visited so he took some time off to visit it with Sam. Their first stop is a bar called “The Safe Landing”. Unfortunately, it did not serve strawberry soda, Max’s first choice, so he has his first taste of beer. Sam leaves him for a time and Simes come into the bar. He sits next to Max and is abusive.

Sam returns and Simes leaves, allowing Sam and Max to talk in private. Sam thinks Max's promotion may allow him to pursue a career in space, but Sam still plans to jump ship when it stops at Nova Terra. When they return to the ship, Max helps Sam carry four large bundles

- quiz/reading comprehension questions
 1. To what does the taste of beer remind Max?
 2. Describe Garson's Planet.
 3. Why does Sam not want to visit the bar "The Better Hole"?

Answers: 1—Cold soap suds. 2—Its gravity is 25% higher than Earth's, it's cold, and it has a methane atmosphere. 3—There were Imperial Marines drinking there.

- Suggestion for reflection and discussion: Simes is a bully. Ask the students if they have had dealings with bullies.
- Suggested activities/inquiry-based exploration: At the bar, Max meets a woman who claims to be from Winnipeg. Have the students look up Winnipeg on a map and check its position relative to Arkansas.

Chapter XI—"Through the Cargo Hatch"

- Prepare to read:
 - vocabulary
 - automaton
 - congruency
 - abstruse
 - electromagnetic
 - spectrum
 - Focus questions/initiating activity: When Hendrix confronts Max about his service record, Max confesses that it is false. Why was Max right to do so?
- Chapter summary: The *Asgard* makes its first transition to faster-than-light speed for the first time since Max joined the control room staff and finds out why its nickname is "The Worry Hole". The closer the ship is to transition, the greater likelihood that a single mistake by a member of the staff will cause them to become hopelessly lost. Max is finally assigned to a regular watch under

Hendrix. During the last twenty hours before transition, Hendrix does not leave the control room and checks everything Simes does and on one occasion does his work for him. During the actual transition, Hendrix is in complete control with Kelly operating the computer and Simes, Max and even Captain Blaine as mere observers. In the blink of an eye, the ship travels light years. Only then does everyone relax. For a week, Max is temporarily promoted while Hendrix rests. Then he is summoned to Hendrix's cabin, where he is waiting with Kelly. At Hendrix's prompting, Kelly recommends that Max stop working as an apprentice chartsman but instead try to become an astrogator. Max agrees to go for it. After Kelly leaves, Hendrix asks him to comment on his service records, and Max confesses that it is a forgery, but leaves Sam's name out of it. This was fortunate, because Hendrix had already deduced this and thought that several other members of the control room staff had as well. Hendrix decides to ignore Max's transgression because he needs another astrogator and because Max's Uncle Chet was his teacher. Hendrix tells him he will convene a guild meeting of him, the captain, and Simes to designate Max as a probationary apprentice astrogator.

- quiz/reading comprehension questions:
 1. How does Hendrix deduce that Max's service record is false?
 - (a) The record showed Max serving on a ship that never existed.
 - (b) A contradiction between the record and what Max had told Hendrix about being taught by Uncle Chet.
 - (c) The record shows skills that Max does not have.
 - (d) The record shows consecutive visits to planets that are opposite ends of the galaxy.

Answers: 1—b

- Suggestions for reflection and discussion: The captain comments that it must be terrible for Max to not be able to forget things. Why would he say that?
- Suggested activities/inquiry-based exploration: Dr. Hendrix mentions Admiral Lord Horatio Nelson. Have the students research him.

Chapter XII—Halcyon

- Prepare to read:
 - vocabulary
 - probationary
 - meager
 - protocol
 - Focus questions/initiating activity: Max learns to dance in this chapter. Ask if any of the students know how to dance.

- Chapter summary: Although he is only a probationary apprentice astrogator, Max is now an officer of the ship. This means that he gets to wear a cap with the insignia of an astrogator, have someone else carry his bags, gets to sleep in a private cabin, and eats in the passenger lounge. On the other hand, Simes threatens to bust him back to sweeping after cows. Just before his first dinner, Ellie congratulates him by kissing him on both cheeks. However, they don't sit at the same table, because Ellie's seat is at the captain's table and Max's is at the Chief Engineer's next to Mrs. Daigler, a middle-aged but still beautiful woman. Max's first watch as an astrogator is the following morning and is startled when Chief Kelly calls him "Sir". Hendrix appears just before the watch starts, but he reads a book while Max is in command. At the end of the shift, Simes resentfully relieves him. During subsequent watches, Hendrix drills Max repeatedly. Then when they approached the next transition, Hendrix lets him make the decisions until he himself took over twenty minutes before the transition. The cycle repeated itself until Hendrix takes over ten minutes before the last transition before they arrived at the planet Halcyon. Hendrix assigns Max to compute their approach to the planet. Meanwhile, Sam is caught running a roulette game, which is against regulations, and he is busted to cleaning the decks of the passenger quarters. Ellie recruits Max to escort her around Halcyon, an earth-type planet with a breathable atmosphere and three moons, and they spend the day as tourists. That evening they visit a night club with a live human orchestra. Unfortunately, when they return to the ship, they learn that Hendrix has died.

- quiz/reading comprehension questions:

1. Who provides Max with an Astrogator's cap?
2. How is Max's new cabin furnished?
3. How is Ellie dressed for Max's first dinner in the passenger lounge?
4. Where does Max play chess with Ellie?

Answers: 1—Hendrix has an old one that he gave to Max; 2—a bunk with a foam mattress and a bedspread, a tiny wash basin with running water, a mirror, a bookshelf over the bunk, a wardrobe, a desk, a telephone, a chair, a wastepaper basket, and a rug; 3—she is wearing formal evening dress; 4—Max and Ellie play in the passenger lounge.

- Suggestions for reflection and discussion: Ask the students if they know anyone who has died.
- Suggested activities/inquiry-based exploration: The spaceport on Halcyon is named Bonaparte, presumably after Napoleon Bonaparte. Have the students research Napoleon and speculate why someone would want to name a city after

him.

Chapter XIII—Transition

- Prepare to read:
 - vocabulary
 - shroud
 - anomalous
 - diplomatic
 - instantaneous
 - orient
 - firmament
 - velocity
 - astonishment
 - ample
 - meticulous
 - Focus question/initiating activity: Astrogation is very mathematics-intensive. Ask the students if they think mathematics is hard.
- Chapter summary: Max is ordered to report to the captain's cabin. When he arrive he finds the cabin and hallway crowded. When all the officers finally report, the captain announces that Hendrix had died of a heart attack earlier in the evening and that his body would be "buried" in space. The captain then dismisses all the officers except the astrogators and First Officer Walther. He immediately appoints Simes to be the astrogator and announces that he, as a former astrogator, will begin standing a watch. The next morning, Simes astrogates the liftoff from Halcyon and later Max attends Dr. Hendrix's funeral as an honorary pall bearer. Dr. Hendrix's body is covered by a shroud when two stewards carry it into an air lock. After the captain reads a passage from a prayer book, the body is ejected into space, where it will remain until quite possibly the end of time. The following day, Max is assigned to the captain's watch, and the captain allows him to make minor decisions. Eventually, the captain stops bothering to stand a watch and allows Max complete autonomy. However, when they gets closer to transition, the captain returns. One the day of the transition, the captain announces that they would make it as a team, taking turns making calculations. About forty-five minutes from transition, Max thinks the captain made a mistake and speaks up. Simes agrees with the captain, who promptly relieves Max of his duties, leaving only him and Simes making calculations. However, it turns out the Max was right, but then Simes makes a mistake trying to correct the captain's original mistake. Then it is the captain's turn to make yet another mistake. After a few tense moments, the ship finally makes the transition, and they survive. The

captain retires to his cabin. Kelly is the first one to realize that the ship has arrived in the wrong part of space. After a few minutes, he proves to everyone in the control room, even Simes that they are lost in space.

- quiz/reading comprehension questions
 1. What is Simes's first action as astrogator?
 - (a) He busts Max back to sweeping after cows.
 - (b) He gets drunk.
 - (c) He moves into Hendrix's cabin.
 2. What is supposed to be the *Asgard's* next stop?
 - (a) Nova Terra
 - (b) Hespera
 - (c) Mars
 - (d) Dantooine
 3. What does Max do that angers Simes?
 - (a) He calls Simes an idiot.
 - (b) He steals Simes's girl.
 - (c) He persuades the captain to demote Simes.
 - (d) He signs the log as the officer of the watch.

Answers: 1-c; 2-a; 3-d

- Suggestions for reflection and discussion: Ask the students whether they have attended a funeral and how did it differ from Hendrix's?
- Suggested activities/inquiry-based exploration: During the funeral service, the captain quotes from the Church of England (Anglican) Burial Service: "Ashes to Ashes, Dust to Dust", which is an adaptation of the King James translation of the Bible from the books of Genesis, Chapter 3, Verse 19 and Ezekiel, Chapter 28, Verse 18. Have the students look up the verses and see the context.

Chapter XIV—Anywhere

- Prepare to read:
 - vocabulary
 - hydraulics
 - jurisdiction
 - incapacitate
 - inconvenience

- suspenders
- Initiating activity: First Officer Walther lies to the passengers when he tells them that the ship is merely delayed. Is he correct to do so?
- Chapter summary: The captain blames himself for the unsuccessful transition, but Simes keeps trying to find a way to blame Max. When Max tries to relieve Kelly in the control room so that he can get some rest, he discovers that Simes has relieved Max of all his duties. Meanwhile, Kelly has made extra records of the transition just in case they ever get back to known space and there is a formal inquiry. He gives a copy to Max for safekeeping. He also tells Max that they are searching for stars that have been cataloged, but they have had no success. The one silver lining is that they are close to a star that may have planets. When Max goes to dinner, he discovers that no other officers are in the passenger lounge and that dinner is not ready. The passengers ask him about rumors that they are falling into a star. At least, Max did not have to lie to reassure them that this was not the situation. Finally, a steward arrives and quietly explains to Max that the reason for the delay is that the chef has gotten drunk. Then First Officer Walther arrives and announces that there has been a glitch in the transition and that the *Asgard* will be delayed in reaching its destination
- quiz/reading comprehension questions
 1. What does Simes claim Max did to screw up the transition?
 2. What is the worst case scenario?
 3. Why did the chef get drunk?
 4. What does Max say is the only thing faster than the speed of light?
 5. What does First Officer Walthur says protects the passengers?

Answers: 1—Simes claims that Max created a disturbance that distracted him and the captain; 2—The *Asgard* may be in another universe in which the physical laws are different; 3—He heard that the ship was lost and did not care if he was punished; 4—the speed of rumors; 5—He points out that their tickets include trip insurance.

- Suggestions for reflection and discussion: Ask the students what they would do if they became lost in space.
- Suggested activities/inquiry-based exploration: Kelly refers to Adam and Eve from the Bible. Have the students research their story.

Chapter XV—“This isn’t a Picnic”

- prepare to read:
 - vocabulary
 - spectrogram
 - shenanigan
 - temporary
 - billet
 - exception
 - predecessor
 - diplomatic
 - bolometric
 - hyperboloid
 - Initiating activity: Ellie makes references to *Robinson Crusoe* and *Swiss Family Robinson*. Ask the students if they had read either book or seen a movie based on one of them.
- Chapter summary: Having been relieved of his duties, Max stays in his cabin. Consequently, he misses the riot. Some of the crewman had gotten drunk and marched to the captain’s cabin to get the truth about their situation. It got violent, but Max learns that Sam broke up the riot. Then he discovers that he has been put back on duty. Kelly is in charge of the control room when Max arrives and tells him that he “persuaded” Simes to put Max back to work. Max spends the entire watch trying to figure out where they are, but without success. Simes relieves him, but not before they have an argument about how Max signed the log. Max finds Sam when he returns to his cabin and sees that he has been restored to his rank of Chief Master-at-Arms. First Officer Walthur is afraid of more riots and wanted Sam back in that position. Sam points out to him that the captain has retreated to his cabin and has not been seen since. Meanwhile, the control room staff determines that the star they are headed for not only has planets, but the fourth one from the sun was similar in gravity to the Earth, had temperatures corresponding to the tropics on Earth, and oxygen in its atmosphere. Consequently, they put the ship into orbit around it.
- quiz/reading comprehension questions
 1. How did Kelly persuade Simes to put Max back on duty?
 2. Did Sam break up the riot for the good of the ship and crew?
 3. Does Sam destroy the still that makes liquor for the crew?

Answers: 1—Kelly blackmails Simes; 2—No, he made sure First Officer Walthur saw him so that he would get his old job back; 3—No, he helps the owner dismantle it and store it safely.

- Suggestions for reflection and discussion: Simes places the *Asgard* in a polar orbit. Explain to the students why this is better for surveying a planet than an equatorial one.
- Suggested activities/inquiry-based exploration: Heinlein uses the Kelvin temperature scale to describe the surface temperature of the star. Have the students look up the scientist Lord Kelvin and the temperature scale he invented.

Chapter XVI—“---Over a Hundred Years---”

- Prepare to read:
 - vocabulary
 - constitutional
 - recriminations
 - economics
 - statistics
 - Initiating activity: Mr. Daigler suggests that Ellie and Max get married. Ask the students if they should.
- Chapter summary: The *Asgard* lands on the planet, now named Charity. The captain supervises the landing in the control room, but shocks everyone by his appearance. He seems to have aged ten to fifteen years overnight. Simes pilots the landing. All passengers and crew not on duty report to the passenger lounge. The captain apologizes to them and leaves. Then the first officer addresses them and admits that they are lost. The passengers are welcome to colonize the planet with the resources of the ship, which includes the animals that Max used to tend, and the help of the crew. Mr. Daigler points out that there are not enough people to start a viable colony, especially considering that there are only six women among the passengers and none among the crew. After the meeting adjourns, Mr. Daigler invites Max and Ellie to their cabin for a chat. Max tells him that all he knows is that they are not within 100 light years of known space and that it may take as long as a year or two to figure out where they are. Even if they do, it may not be feasible to travel to known space.
- quiz/reading comprehension questions
 1. Who names the planet Charity?

- (a) Ellie
- (b) Kelly
- (c) Simes
- (d) Walther

2. Simes piloted the landing but who actually calculated it?

- (a) Simes
- (b) Max
- (c) Blaine
- (d) Kelly

3. What craft does Mrs. Daigler plan to study?

- (a) How to cook without a microwave
- (b) How to make candles
- (c) How to make soap
- (d) How to breed farm animals

Answers: 1—a; 2—d; 3—c

- Suggestion for reflection and discussion: There are no females among the crew of the *Asgard*. Should there be?
- Suggested activities/inquiry-based exploration: Mr. Daigler is concerned that there are not enough passengers for a viable colony. Have the students research genetics and the problem of recessive genes.

Chapter XVII—Charity

- Prepare to read:
 - vocabulary
 - zenith
 - concomitant
 - centaur
 - marsupial
 - mammal
 - tendril
 - Initiating activity: Ask if any of the students have ever gone camping. If yes, ask them how remote they were and what precautions, if any, they took against wild animals.

- Chapter summary: The colonists name their town Charityville. Charity seems like a paradise with mild weather, a night sky filled with comets and meteors, and, apparently, no dangerous animals. The largest natives resemble centaurs and are about the size of Shetland ponies. There are no birds, but there are flying creatures that looked like jellyfish. The colonists name them hobgoblins. Max is having his usual dealings with Simes, who has forbidden him from entering the control room. Having nothing to do, he visits the colony and sees Ellie and Mr. Chips. She invites him to share a picnic lunch with her. She has heard that there is a herd of centaurs a short distance from the town and wants to have a look at them. They climb a hill and see the centaurs, but Ellie wants a closer look, so they walk away from the town and toward the herd. As they are walking, Ellie reveals that she has a boyfriend back on Hespera. When they get closer, one of the baby centaurs trots over to them before stopping about twenty feet away. Ellie wants to make it a pet. Then one of the adults throws what looks like a rope and ensnares them.
- quiz/reading comprehension questions
 1. Who is elected mayor of Charityville?
 - (a) Mr. Daigler.
 - (b) Mrs. Daigler
 - (c) Sam
 - (d) Simes
 2. Who is the first street named after?
 - (a) Captain Blaine
 - (b) Simes
 - (c) Hendrix
 - (d) Mr. Daigler

Answers: 1—a; 2—c

- Suggestion for reflection and discussion: When Max considers Ellie as a future wife, he imagines her cooking turnip greens and chicken. Ask the girls in class how they would feel about that. Ask them if they think Ellie would be satisfied with a life like that.
- Suggested activities/inquiry-based exploration: Have the students research the history of colonies, including failed ones like Roanoke Island and successful ones such as Jamestown and Plymouth.

Chapter XVIII—Civilization

- Prepare to read:
 - vocabulary
 - involuntary
 - vehemence
 - semantic
 - animate
 - optimum
 - retaliate
 - Initiating activity: Ask the students if they have ever wondered if animals can talk to each other.
- Chapter summary: Max and Ellie try to free themselves from their bonds, but are unsuccessful. When the rest of the herd comes over to look at them, Max realizes that they are using language. Max gets out his knife, but finds that the ropelike substance will not be cut. Then the herd moves out, dragging Max and Ellie behind them. Eventually, they stop and tie Max and Ellie to trees. They leave Max and Ellie alone for a while, so Max examines their bonds more closely. He discovers that it is not rope after all but some kind of living thing. Then Mr. Chips arrives. She has followed them. Max has the idea that Mr. Chips could go back to the colony and bring help. He had a pen in his pocket and Ellie had a piece of paper, so on the back he wrote a message. Ellie was wearing a ribbon, which they used to attach the message to the spider puppy's waist. After Mr. Chips leaves, they see the centaurs herding a group of humanoid marsupials. At sunset, three of the humanoids under a centaur's supervision bring them a bowl of water, some fruit, and six small animals. The animals are hung on the branches of trees by their tails and lit up to provide light. Max tries to talk to the centaur but gets nowhere. He does see that the centaur's teeth are that of a carnivore, but he does not tell Ellie. Max and Ellie drink the water and eat the fruit, figuring that if they kill them, they won't be much worse off. They sleep until sunrise the next day. Around midday, they are led away until they arrive at a large settlement. There are no buildings, but it is definitely organized. In the middle, a large and older looking centaur is holding court. He is obviously the leader.
- quiz/reading comprehension questions
 1. What does Max see on the way to the leader?
 - (a) the equivalent of a butcher shop
 - (b) a clothing store
 - (c) a house
 - (d) an armory
 2. What happens to the elderly centaur that is brought before the leader?

- (a) It is put in jail.
- (b) It is given money.
- (c) It is killed
- (d) It is given a medal.

Answers: 1—a; 2—c

- Suggestion for reflection and discussion: Besides the water bowl, neither Max and nor Ellie see any artifacts. Are the centaurs civilized?
- Suggested activities/inquiry-based exploration: Dolphins do not have artifacts or even hands. Have the students research the studies of intelligence in dolphins.

Chapter XIX—A Friend in Need

- Prepare to read:
 - vocabulary
 - characteristic
 - monotony
 - papaya
 - frivolous
 - chattel
 - monosyllable
 - arroyo
 - Initiating activity: Ask the students if they have ever wondered what it would be like to be tied up like a dog or cat.
- Chapter summary: Max and Ellie are brought before the centaur leader, who inspects them. He makes a decision, although Max and Ellie do not know what, and are led back to the trees. They are kept there for about a week. To alleviate the boredom, Max and Ellie make their own chess set from tree cones and other debris in their camp site. Max discovers that Ellie knew how to play before they ever met and had been letting him win. Finally, one night Sam sneaks into their camp. Using a silent ray gun, Sam kills the rope creatures that have kept them tied up. Then he leads them into the woods where they find Mr. Chips. Then Max takes the lead. With his memory and experience exploring the woods around the farm back on Earth, he remembers the way back to the ship, even at night. When one of the hobgoblins gets too close, Sam shoots it. He informs them that the centaurs use them as observers. They get within sight of the ship by dawn, but Sam has them hide rather than try to make it the rest of the way in the daylight, because the centaurs have surrounded the ship. The colony had to be abandoned, and Sam felt they were lucky that only one life was lost. Simes and the captain

were also dead. Sam does not know exactly how the captain died, but the ship surgeon certified it as natural causes. Simes, on the other hand, pulled a gun on First Officer Walther, so Sam had to take it away from him and killed him in the process. Then a hobgoblin spots them so they have to make a run for it. Dozens of centaurs try to cut them off. Max and Ellie continue running while Sam covers them.

- quiz/reading comprehension questions
 1. What does Max learn about Ellie?
 - (a) She was the junior chess champion of Hespera.
 - (b) She was a beauty pageant champion.
 - (c) She was a champion equestrian.
 - (d) She was a champion swimmer.
 2. Why did it take so long to find them?
 - (a) No one missed them.
 - (b) Everyone was too busy.
 - (c) Mr. Chips lost the message.
 - (d) Simes forbade Sam from attempting a rescue.

Answers: 1—a; 2—c

- Suggestion for reflection and discussion: Ellie seems to think that it is better for women to not appear to be smarter than men. Ask the students if they agree.

Chapter XX—“---A Ship is not Just Steel---“

- Prepare to read:
 - vocabulary
 - symbiotic
 - predatory
 - Initiating activity: Ask the students if they think Max should be the captain of the *Asgard*.
- Chapter summary: Max and Ellie make it to the ship. As they are going in, four armed men go out. Unfortunately, they are too late to save Sam, who was trampled to death by the centaurs. The men run the centaurs off for the time being, and they bring Sam’s body inside. Ellie is led off to the surgeon, and Max is brought to the First Officer’s cabin, where they meet with the chief engineer

- and the purser. First Officer Walther tells him that not only is Max the only astrogator left but he is also legally the only person on board the ship who can become captain. When Max points out that he is only a probation apprentice astrogator, Walther dismisses that as irrelevant. Finally, they talk him into accepting the position. After the chief engineer and the purser leave, Walther and Max have a private conversation in which Walther tells Max the full story of Simes's death. Walther refused to accept Simes as captain, so Simes pulled a gun to try to establish his authority. Sam had saved Walther's life when he killed Simes. Another complication is that all the astrogation textbooks are missing. Simes must have hidden them when he realized that Walther would rather have Max or Kelly as captain. Max would have to astrogate from memory. The official announcement of Max's promotion is made at dinner in the passenger lounge, and Max wears the uniform of a captain. Ellie is there, too, with bandages on her feet. Max announces that they will try to retrace their transition to this system. If it does not work, they will be no worse off than they are now.
- quiz/reading comprehension questions

1. Does the senior astrogator automatically advance to captain?

- (a) No. If the ship has landed on a planet, the first officer must sign off on the appointment.
- (b) Yes. Simes's death cleared the way for Max to become captain.
- (c) Yes, but the appointment is temporary until the ship reaches its home port.
- (d) No. There must be an election.

2. Who previously owned the cap the Max wore to dinner?

- (a) Captain Blaine
- (b) Simes
- (c) Hendrix
- (d) No one. It was found a storeroom.

Answers: 1—a; 2—c

- Suggestion for reflection and discussion: Max offers to land any passengers who do not want to risk a transition with Max in command on another planet in the system which is barely earthlike. Ask the students if they would have taken that option.

Chapter XXI—Captain of the Asgard

- Prepare to read:
 - vocabulary

- indoctrination
 - foible
- Initiating activity: Max decides to turn himself in and confess his and Sam's deceptions if they make it back to known space. Ask the students if they think Max is doing the right thing.
- Chapter summary: The next morning, Max, Walther, and a group of body guards bury Sam's body outside the ship. The engineering department had prepared a marker of stainless steel. Then Max goes to the control room, and they lift off. As Kelly expected, Simes had destroyed the official records of the transition that had brought them there. Fortunately, they have Kelly's copy. Since they are shorthanded, Max has a cot installed in the control room so that anyone can take a nap when they need one. Max does make the time to have dinner in the passenger lounge one evening. He orders that people dance afterward, and Ellie brings Mr. Chips so that Max can visit with her. Then he visits the First Office's cabin, where he confesses his and Sam's deception when they signed on as crewmen. As it turned out, Hendrix had already discussed it with Walther. Max decides to turn himself into the authorities if they make it back to human space. As they get closer to the transition point, Max sleeps in the control room. As planned they are going to try to duplicate the transition that brought them there. However, if Kelly's records are incomplete, or if anyone makes a mistake, especially Max, they can end up in another uncharted part of the universe. When the moment of truth comes, Max and the rest of the control room staff make the right decisions and calculations, and they return to the system they had left. However, rather than returning to Halcyon, Max decides to make another transition to Nova Terra, their original destination.
- quiz/reading comprehension questions
 1. What did Sam's burial marker say about him?
 - (a) "He ate what was set before him."
 - (b) "Greater love hath no man."
 - (c) "He played the cards he was dealt."
 - (d) "I'd rather be in Philadelphia."

Answers: 1—a

- Suggestion for reflection and discussion: Rather than returning to Halcyon and waiting to be relieved by a more senior astrogator, Max aims the ship toward Nova Terra. Is Max doing the right thing?

Chapter XXII—The Tomahawk

- Prepare to read:
 - vocabulary
 - trajectory

- Chapter summary: Max is back on his farm and reading a letter from Ellie. She has married her boyfriend from Hespera. Max has been assigned to be assistant astrologer on the *Elizabeth Regina*. He did follow through and confessed his and Sam's deception to the Council of Guilds. Fortunately, he got away with only a big fine and a mark on his record. The farm has been condemned and Maw has collected her half of the sales price and moved away with Monty. Max's half of the money went to pay most of his fine. A helicopter taxi is waiting to take him to the nearest train station, where he would catch one to Earthport
- quiz/reading comprehension questions
 1. What project was being built using Max's old farm?
 - (a) The Missouri-Arkansas Power Project
 - (b) A superhighway
 - (c) A train line
 - (d) A mall

 2. Who was the congruency that the *Asgard* discovered named after?
 - (a) Captain Blaine
 - (b) Simes
 - (c) Hendrix
 - (d) Max

Answers: 1—a; 2—c

- Suggestion for reflection and discussion: Ellie married someone else. Should Max be sorry?

Suggestions for more extended papers/projects, which allow students to reflect on

major themes in the book as a whole:

- In his book *Heinlein in Dimension*, Alexei Panshin discusses recurring character types in Heinlein's fiction: Stage 1 and Stage 2. A Stage 1 individual is young and competent, but naïve. A Stage 2 individual is older, often functions as a mentor for the Stage 1 individual, and knows how things work. Have students contrast and compare Max (Stage 1) and Sam (Stage 2).
- In his book *Robert Heinlein*, Leon Stover points out the similarity between Heinlein's description of the Astrogator's Guild and Mark Twain's description of the riverboat pilots in chapter 15 of *Life on the Mississippi* (1883). Have the students read this passage and contrast and compare it with Heinlein.
- In the future presented in *Starman Jones*, technological advances have not been even in all fields. Max's farm is primitive even by the standards of the time Heinlein was writing, computers have made few advances from Heinlein's time, and Max reads physical books rather than an e-book reader. On the other hand, there are supersonic trains, trucks that hover a few inches above the ground and travel at speeds up to two hundred miles per hour, and starships that travel faster than the speed of light. Have the students contrast and compare these developments with the present.
- Another feature of this future is that there is a national (and possibly world) identity card system, everyone's fingerprints are kept in a file in at least one government office somewhere, the Earth is overpopulated, unemployment is high, and the best jobs are inherited. Have the students contrast and compare these developments with the present.
- While Max is obviously not autistic, he does have an eidetic memory similar to "autistic savants". Have the students research such people and compare them with Max.

