STAR BROTHER

Resource Study Guide

Point of View

A point of view is a perspective from which something is considered or evaluated. For example, in *Star Brother*, the author/narrator tells the story from Jason's point of view. This is called the third person point of view. The author allows us to know Jason's thoughts and his feelings, but we don't know the thoughts and feelings of the other characters unless they tell them to another character. Another point of view the author could have used is the first-person point of view in which Jason would tell his own story to you, the reader.

Here's a cool exercise to try: Rewrite a portion of the novel—just a paragraph or a page in another point of view, Roy's, Melanie's or Mrs. Peterson's.

Fact or Fiction?

Star Brother is a science fiction novel. This means that some of the science is made up, just not true. However some of the science is true. Can you identify the true science from the false?

Give it a try and when you finish here are some surprising true science facts:

Hologram

A hologram is like a three-dimensional photo. Photographs show only height and width. Holograms show height, width, and depth. By moving from side to side, a viewer can see the front and the sides of an object shown in a hologram. The process of making holograms is called holography.

A typical hologram is created with a laser. A hologram mirror splits light from a laser into two beams. One beam shines directly onto a piece of photographic film. The other shines on the object and reflects onto the film. The two overlapping beams create a pattern of closely spaced lines. The pattern recorded on the film is the hologram.

Some types of hologram have to be viewed with light from a laser. Other holograms can be viewed with ordinary light.

Holograms have many uses. People can make holograms of things that are hard to see normally—for example, parts inside the human body. Then they can study the details recorded in the hologram. Small holograms are commonly found on credit cards, driver's licenses, and paper money. The holograms make it difficult to produce illegal copies.

Holograms will be a bigger part of our lives in many areas such as for navigation, medical diagnosis and driving safety.

Incredible New Holograms!

Only recently scientists have invented holograms that you can touch and feel!

- **Want to know more about these incredible new holograms, check this out:** Holograms You Can Touch and Feel

Twin Stars

Can stars really be "born as twins"? They sure can! Many stars are formed in pairs or multiple star systems from the same cloud of gas and dust. This is analogous to how identical twins on Earth are formed from a single fertilized egg.

- **Here's more information about this wondrous fact:** Twin Stars

Twins of Different Ages—possible?

Yes! This can occur when embryos are frozen and implanted at different times. And embryos can be frozen for a *long* time like Lydia and Timothy, who were born in 2022 from embryos frozen for 30 years!

- **Read more about Lydia and Timothy.**

Repressed Emotions

Jason is emotionally closed down. He has strong feelings, but he doesn't express them, even to himself. He doesn't speak of his longings, desires, hurts, or loves because he doesn't trust anyone. Also, he doesn't believe anyone would care what he feels. Sometimes we all repress our feelings and for many different reasons such as feeling insecure or shy or afraid or perhaps not feeling emotionally safe with another to *really* tell what we're feeling. That's why it's important to ask yourself how you feel right now. If you have a hard time speaking your emotions at first, try using words or colors in a journal or piece of art. You can also use "I" statements: Practice expressing your feelings with phrases like, "I feel confused. I feel nervous. I feel terrified." Another practice is to name and share your emotions with someone you trust and to encourage that person to share their feelings as well.

Who the Heck is Isaac Newton?

Isaac Newton (1643 -1727) was one of the great figures in the history of science. He's famous for discovering gravity and the laws of motion, which are fundamental ideas in physics. He also made important contributions to mathematics, especially calculus, and optics such as his discoveries about light and color.

- **Want to know about Newton's three laws of motion? Click here:** Newton's Laws of Motion.

Gothic

When Jason, Roy and Melanie meet Dr. Fritzhauer in *Star Brother*, the story takes on elements of a Gothic novel. But what are these Gothic elements?

Here are a few... and they're creepy!

- Dark, decaying setting like a decrepit old mansion or other building
- Supernatural occurrences
- Intense emotions
- A focus on mystery and suspense
- Madness
- The protagonist facing threats from a powerful or tyrannical figure
- A decaying old mansion or building

Similes

Star Brother contains some fun wordplay including similes. A simile uses the words "like" or "as" to compare two different things that have something in common.

Here are some examples but you can find more. And you can have fun making up your own.

- ..."as if the land were its own map." *page 115*
- "old as stone" *page 120*
- "curls like little blackbird feathers" *page 31*
- "... fragmented like pieces of a mirror" *page 59*
- "as if it were a sandwich" *page 115*
- "Thunder cracked like a whip" *page 203*

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Words to Know

Chesterfield
a sofa with padded arms and a back of the same height and curved outward at the top

Cosmos
an orderly or harmonious universe

Conflagration
an extensive fire

Embryo
the developing organism from about two weeks after fertilization until the end of the seventh or eighth week of pregnancy

Pyre
a heap of combustible material, especially one for burning a corpse as part of a funeral ceremony

Feint
a deceptive or pretended blow or thrust or other movement especially used in boxing or fencing

Pugilist
a boxer

Rebuke
to express sharp disapproval or criticism of someone's behavior or actions