

The diameter of our galaxy is about 120,000 light years, and about 10,000 light years from top to bottom. The Earth is located between the center and the edge of the galaxy.

Of course, astronomers know the most about the Milky Way. It is part of a cluster group of about 3,000 other galaxies called the **Local Group**. The Local Group contains the closest galaxy to the Milky Way, the **Andromeda Galaxy**. It is located 2.6 million light years away from the Earth, which means it would take a beam of light about that long to reach the Andromeda. The end-to-end distance of most galaxies is about 100,000 light years across.

As stated earlier, stars move in galaxies, but the galaxies also rotate and move through space. Most are moving away from each other, some collide with each other, due to the expansion of the Universe brought on by the **Big Bang**, the most popular theory of the beginning of the universe. Nearly 10 to 20 billion years ago, the universe began with not necessarily an explosion, but the expansion from a single atom.

Classification of Galaxies

Galaxies are classified based on their shapes. There are three main shapes of galaxies in the universe.

Spiral



- Stars, gas and dust gathered in spiral arms around its center
- Older stars in the center, new developing stars are part of the arms
- Often, the brightest in the universe
- 20% of all galaxies are spiral, including the Milky Way.

Elliptical



- Large mass of stars clumped together in the shape of ellipses (stretched circles).
- Mostly made up of old stars, not much gas or dust, or new star formation
- Largest galaxies are usually elliptical, but can also be small
- 60% of all galaxies are elliptical

Irregular



- They have no shape or specific pattern
- Usually forms when two galaxies collide and lose their elliptical or spiral shape
- Often remains influenced by the gravity from nearby galaxies
- 20% of all galaxies are irregular

Unit 11 Lesson Grade 8 Science Galaxies

Terry C. Jones



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In a digital era where connections and knowledge reign supreme, the enchanting power of language has become more apparent than ever. Its capability to stir emotions, provoke thought, and instigate transformation is truly remarkable. This extraordinary book, aptly titled "**Unit 11 Lesson Grade 8 Science Galaxies**," written by a highly acclaimed author, immerses readers in a captivating exploration of the significance of language and its profound effect on our existence. Throughout this critique, we will delve into the book's central themes, evaluate its unique writing style, and assess its overall influence on its readership.

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Table of Contents Unit 11 Lesson Grade 8 Science Galaxies

1. Understanding the eBook Unit 11 Lesson Grade 8 Science Galaxies
 - The Rise of Digital Reading Unit 11 Lesson Grade 8 Science Galaxies
 - Advantages of eBooks Over Traditional Books
2. Identifying Unit 11 Lesson Grade 8 Science Galaxies
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Unit 11 Lesson Grade 8 Science Galaxies
 - User-Friendly Interface
4. Exploring eBook Recommendations from Unit 11 Lesson Grade 8 Science Galaxies
 - Personalized Recommendations
 - Unit 11 Lesson Grade 8 Science Galaxies User Reviews and Ratings
 - Unit 11 Lesson Grade 8 Science Galaxies and Bestseller Lists

5. Accessing Unit 11 Lesson Grade 8 Science Galaxies Free and Paid eBooks
 - Unit 11 Lesson Grade 8 Science Galaxies Public Domain eBooks
 - Unit 11 Lesson Grade 8 Science Galaxies eBook Subscription Services
 - Unit 11 Lesson Grade 8 Science Galaxies Budget-Friendly Options
6. Navigating Unit 11 Lesson Grade 8 Science Galaxies eBook Formats
 - ePub, PDF, MOBI, and More
 - Unit 11 Lesson Grade 8 Science Galaxies Compatibility with Devices
 - Unit 11 Lesson Grade 8 Science Galaxies Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Unit 11 Lesson Grade 8 Science Galaxies
 - Highlighting and Note-Taking Unit 11 Lesson Grade 8 Science Galaxies
 - Interactive Elements Unit 11 Lesson Grade 8 Science Galaxies
8. Staying Engaged with Unit 11 Lesson Grade 8 Science Galaxies
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Unit 11 Lesson Grade 8 Science Galaxies
9. Balancing eBooks and Physical Books Unit 11 Lesson Grade 8 Science Galaxies
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Unit 11 Lesson Grade 8 Science Galaxies
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Unit 11 Lesson Grade 8 Science Galaxies
 - Setting Reading Goals Unit 11 Lesson Grade 8 Science Galaxies
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Unit 11 Lesson Grade 8 Science Galaxies
 - Fact-Checking eBook Content of Unit 11 Lesson Grade 8 Science Galaxies
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning

- Utilizing eBooks for Skill Development
- Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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