Name: _____   **Date: _____**

Stellar Structures and Silent Space: 11th Grade Survey

Junior level students recall fundamental cosmic structures and identifying traits of deep-space phenomena used by professional astrophysicists to map our sky.

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1. Which specific morphological class is characterized by a smooth, featureless appearance and a lack of active star formation, such as the massive galaxy IC 1101?

    A. Barred Spiral
    B. Elliptical
    C. Lenticular
    D. Irregular

2. The 'Great Attractor' is a massive gravitational anomaly in intergalactic space that is pulling the Milky Way and other galaxies toward it.

    A. True
    B. False

3. Vast, empty regions between galaxy filaments that contain very few or no galaxies are known as cosmic _____.

    A. Holes
    B. Pockets
    C. Voids
    D. Gaps

4. The Sombrero Galaxy (M104) is famous for its bright nucleus and a large, dark dust lane. What is its primary classification?

    A. Irregular
    B. Dwarf Spheroidal
    C. Spiral
    D. Quasar

5. Redshift is the phenomenon where the light from a galaxy shifts toward longer wavelengths as it moves closer to the observer.

    A. True
    B. False

6. The process by which two galaxies collide and combine into a single, larger structure is called a galactic _____.

    A. Fission
    B. Merger
    C. Collapse

   D. Alignment

7. What is the name of the nearest major spiral galaxy to our own, which is currently on a collision course with the Milky Way?

   A. Triangulum

   B. Andromeda

   C. Centaurus A

   D. Whirlpool

8. The theoretical 'hidden' mass that does not emit light but provides the gravity needed to hold galaxies together is called _____ matter.

   A. Dark

   B. Shadow

   C. Invisible

   D. Neural

9. The 'Laniakea Supercluster' is the specific galaxy supercluster that home to the Milky Way.

   A. True

   B. False

10. Which of these is the most distant and energetic type of object in the universe, believed to be powered by supermassive black holes in the centers of galaxies?

   A. White Dwarf

   B. Nebula

   C. Quasar

   D. Globular Cluster