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Stars, Galaxies and the Universe

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| **Across**  **2.** Pair of stars that revolve around each other and are held together by gravity.  **4.** Nightly luminous stars from main sequence stars that are more massive than the sun, which becomes larger than giants in their third stage.  **6.** An observed change in the frequency of a wave when the source or observer is moving.  **8.** The colors in the spectrum of a side moving toward earth are shifted slightly toward blue.  **10.** A collection of stars, dust, and gas bound together by gravity.  **11.** A large celestial body that is composed of gas and that emits light.  **12.** A spiral galaxy in which the sun is one of hundreds of billions of stars.  **13.** The study of the origin, properties, and evolution of the universe.  **14.** The brightness of a star as seen from earth.  **16.** Unknown material | **Down**  **1.** an object so massive and dense that even light cannot escape its gravity.  **3.** The total amount of energy stars give off each second.  **5.** A large cloud of gas or dust in interstellar space; a region in space where stars are born.  **7.** The coldest temperature possible.  **9.** 14 billion years ago, a sudden event that sent all matter and energy outward in all directions.  **15.** A star that suddenly becomes brighter. |