Chapter 8 Vocab Review NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  | **Definition** | **Diagrams, analogies, questions, or notes** |
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| **Light-year** | The distance light travels (the fastest possible speed in the universe) in a year. One light year is approximately ten million million kilometres. (p328) |  |
| **Parallax** | Causes two different views of the same object compared to the background. Used to measure distances to stars.  (p329) |  |
| **Gravity** | The force of attraction which pulls objects in space together and keeps planets in orbit.  (p330) |  |
| **Nuclear fusion** | The atomic reaction caused by gravity deep within stars, creating heat and light.  (p330) |  |
| **Radiation pressure** | The outward force of the nuclear fusion explosions in stars.  (p330) |  |
| **Nebula** | Clouds of gas and dust. Some of these can form into protostars. Others are produced by dying stars.  (p344) |  |
| **Protostar** | A clump of gas formed by gravity pulling together material from a nebula. This can form into a star. (p331) |  |
| **Galaxy** | Enormous numbers of stars held in a large structure by gravity. Our galaxy is called the Milky Way. (p331) |  |
| **Spectrum** | The colours produced by objects such as stars.  (p337) |  |
| **Spectral class** | The type of star according to its temperature/colour.  (p338) |  |
| **Red giants** | Medium-sized stars form into these as they run out fuel and expand. Our Sun might eventually become a red giant. (p341) |  |
| **Blue supergiants** | Stars that are ten or more times larger than our sun.  (p342) |  |
| **Black hole** | An extremely heavy and dense object with gravity so strong that even light is pulled towards it.  (p331) |  |
| **Binary star system** | Two stars close enough together that they orbit each other.  (p331) |  |
| **Proxima Centauri** | The closest star to our Sun, it is 4 light-years away. It is actually part of a star system called Alpha Centauri. (p329) |  |
| **Supernova** | An enormous explosion created when a large star runs out of fuel. Some supernovae form black holes.  (p342) |  |
| **Magnitude** | The brightness of an object in space, either *apparent* (how it looks from Earth) or *absolute* (how bright it really is). (p336) |  |
| **Red shift** | Stars appear redder if they are moving away from us. This is used as evidence that the universe is expanding. (p351) |  |
| **Cosmic microwave background radiation** | The background signal considered to be a 14 billion-year-old ‘afterglow’ of the Big Bang. (p353) |  |