Earth Science Test – Chapter 3 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Matching: Match each term with the correct definition.

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| 1. \_\_\_\_ chromospheres | 1. The horizontal distance from one wave crest to the next wave crest |
| 1. \_\_\_\_ Milky Way | 1. The dark inner part of a shadow; the dark inner part of a sunspot |
| 1. \_\_\_\_ radiative zone | 1. Relatively small, cooler dark area on the sun’s surface believed to be associated with the sun’s magnetic field |
| 1. \_\_\_\_ solar flare | 1. A pointed jet of gases from the top of the sun’s chromospheres extending into the corona |
| 1. \_\_\_\_ diffraction graph | 1. A severe, suddenly occurring storm on the sun that emits both rays and particles and can disrupt radio transmissions on the earth by disrupting the ionosphere |
| 1. \_\_\_\_ spicule | 1. The middle zone of the sun’s interior where heat moves outward from the core by radiation |
| 1. \_\_\_\_ wavelength | 1. A state of matter formed at extremely hot temperatures that is neither solid, liquid, nor gas |
| 1. \_\_\_\_ penumbra | 1. The lighter outer part of a shadow; the light outer part of a sunspot |
| 1. \_\_\_\_ sunspot | 1. The galaxy in which the sun is located |
| 1. \_\_\_\_ electromagnetic waves | 1. A form of energy which includes visible light, ultraviolet, infrared, x-rays, etc. |
| 1. \_\_\_\_ plasma | 1. A series of thousands of microscopic lines ruled or molded onto a transparent surface which are tiny enough to interfere with light waves to produce a spectrum |
| 1. \_\_\_\_ umbra | 1. The extensive outer portion of the solar atmosphere |
| 1. \_\_\_\_core | 1. The innermost part of the sun where thermonuclear reactions generate energy |
| 1. \_\_\_\_ convective zone | 1. The outermost layer of the sun’s interior, composed of hot gases |
| 1. \_\_\_\_ corona | 1. The layer of gases that forms the inner part of the sun’s atmosphere |

True or False: Determine whether each statement is true or false.

1. \_\_\_\_ The moon is much closer than the sun, thus appearing to be the same size in the sky.
2. \_\_\_\_ Most of the sun’s energy is emitted in the form of electromagnetic waves.
3. \_\_\_\_ Most of the sun is made up of hydrogen and oxygen.
4. \_\_\_\_ The two regions of a sunspot are the umbra and the penumbra.
5. \_\_\_\_ The area of the sun’s surface that appear to be bubbles are granules.
6. \_\_\_\_ The core is the innermost section of the sun’s interior.
7. \_\_\_\_ There are many different forms of energy.
8. \_\_\_\_ We are able to use the energy from the sun to help heat homes as well as produce electricity.
9. \_\_\_\_ Sunspots moving across the surface of the sun are evidence of the sun rotating.
10. \_\_\_\_ The corona is part of the sun’s interior.

Short answer: Answer each question with 1-3 complete sentences.

1. List two disadvantages of relying on the sun’s energy.

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1. List the three regions of the sun’s interior.

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Extra credit:

1. About how much of the sun’s mass is lost through radiation and the solar wind each second? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_