**Oxford Bookworms: Space, by Tim Vicary (B1)**

**Chapter 4. The Sun.** Fill in the words. Ignore the words in *italics* and **bold** print for now.

FAR AWAY EXPLODE BILLION MIDDLE-SIZED HOT WARMER HEAT SCIENTISTS

Our nearest star is the sun. The sun is a ……..[1] star. It is *bigger than* some stars, but much *smaller than* others. Some stars, like Betelgeuse, are more than a thousand times *bigger than* our Sun. But we are lucky that our Sun is not too big, because it is not going to …… [2]into a supernova. Not now; probably never. **If** it **does**, it **will not be** for a long, long time.

Middle sized stars, like our Sun, live for about 12 …… [3] years. The Sun is about 4.6 billion years old now, so it will live for several billion more years. It will go on shining for a long time into the future.

For us, the Sun is *the most important* star in the universe. Nothing on the Earth can live without …….. [4] and light from the Sun. We all know this – people have looked at the Sun for millions of years. Thousands of years ago, ……. [5] in China and Egypt studied the Sun, as they tried to understand why some summers were …… [6] *than* others.

All these people asked questions about the Sun. Here are a few of them. How ……..[7] is the Sun? How …..…… [8] is it? And where did it come from?

**Grammar questions.**
**1.** Find three examples of comparative adjectives: …….. , ……., ……..
**2**. Find one example of a superlative adjective. ……..
What are the rules for making comparatives and superlatives a) for short adjectives b) for long adjectives?
**3.** Find one example of a 1st conditional sentence.

HUGE ENORMOUS HOTTEST *LESS* MELTS ANYWHERE OFF NUCLEAR HYDROGEN SURFACE

Scientists today know the answer to the first two questions. The sun is 149 million kilometres away, and it is VERY hot indeed. No astronaut or spacecraft can get ……..... [9]near the Sun, because it is just too hot.

*The* ……[10] fire that we usually use on the Earth is about 2,000 °C. At a temperature like that, iron ……..[11] - that is how we make cars and ships and bridges. But that is much ...……...…[12] *hot* than the temperature of the Sun. The ……..[13]of the Sun is about 6,000 °C. But in the Sun's corona – the ……..…[14] flames just above the surface – the temperature can be 2,000,000 °C. And in the middle of the Sun the temperature is about 15,000,000 °C. That is REALLY hot.

Why is the Sun so hot? What is happening inside it? Well, the Sun is made of just two things, really - …….[15] and helium. All the time, billions of times every second, tonnes and tonnes of hydrogen are turning into helium. Each time they do this, it is like a …...……..…..[16] explosion. It is like a trillion nuclear bombs going …….. [17] every second. At the centre of the Sun, in fact, is an ……..…..[18], endless nuclear explosion.

TURN THE PAGE

EIGHT DESTROY BURN THROUGH HEAT

But nuclear bombs are dangerous – they can ……[19] all of a city. So isn't the Sun dangerous too?

Well yes, it is – but luckily for us, it is also a very long way away. It is 149 million kilometres away – so its ……..[20] keeps us warm but does not ……..[21] us up. Light from the Sun, travelling at 300,000 kilometres a second, takes just over ……. [22]minutes to reach the Earth.

But the Sun does some very frightening things. Never look at the Sun through a telescope – the sunlight will burn your eyes. When scientists look at the Sun, they let the light go ...……[23] a telescope onto a white wall, or into a computer.

- - -

**1st conditional:** If you ……(look) at the sun through a telescope, it …….(burn) your eyes.

- - -

ENORMOUS STORMS GAS GRAVITY FURTHER

The Sun does not explode, because it is so big -…….[24] holds it together. But there are ……....[25] flames, called solar *flares*, above the surface of the Sun. Some of them are 15,000 kilometres high. These solar flares are made by ……...[26]on the surface of the Sun, and some of them are as big as the Earth.

Sometimes when there is a really big storm on the Sun, it can start terrible trouble here on Earth. On 13 March 1989, for example, a cloud of hot ……[27] a million kilometres long came from the Sun towards the Earth. When it came close to the Earth, all the lights went out near Quebec in Canada. A million homes lost electricity, and some were without electricity for eight days, in the midle of winter. ……..[28]north, on the same day, people saw huge red and green lights in the sky, and hundreds of satellites stopped working. **Grammar: What is the comparative of *far*** *? ……*

NOTICED SPOTS IMPORTANT FROZEN ICE ATMOSPHERE INSTEAD

Luckily for us, this does not happen very often. Most of the time, the Earth's ……[29] protects us from this danger. But the Sun can change things on the Earth in other ways too. Thousands of years ago, when scientists in China were studying the Sun, they ……..[30] some strange dark ……..[31]on the surface. Today we call them "sunspots". These sunspots are a little *cooler* than the rest of the Sun – 4000°C …….[32] of 6000°C.

Today, these sunspots *come and go* about every eleven years. But they seem to be ……[33] . Between 1645 and 1715 there were almost no sunspots, and during this time the Earth got really cold. In London, people held parties and even lit fires on the …….. [34] River Thames. England in winter was as cold as Russia and Sweden. This was part of a time of colder temperatures called the Little ……..[35] Age, which went from 1550 to 1850.

**- - - Put the adjective in brackets in the comparative form, using – *er.***

The Sun is much …….(hot) than the Earth. Earth is ……...(cold) than Mercury. Earth is also ……..(big) than Mercury. Mercury is ……...(small) than Venus. Mercury's orbit is …… (short) than that of Mars. The orbit of Mars is ……..(long). Neptune is a bit ……...(heavy) than Uranus. Venus is a bit ……...(light) than Earth. Sunspots are a little …….(cool) than the rest of the Sun. Some summers are …….(warm) than others.