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5<sup>th</sup> grade

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### ***Trees Save Lives***

How can trees save lives? If you have ever taken a tablet or drunk some syrups to help you feel better when you are sick, you have just ingested the answer to this question – medicine. It is fascinating that the traditional Chinese word “藥”, which means medicine, has a root character (木) in it that means wood or tree. This interesting fact shows that over 4,000 years ago Chinese people had already used trees to make medicine to save lives.

Medicine is essential to humans because not only does it save lives, but it also helps relieve sicknesses. Over one hundred twenty drugs used in the Western society, such as quinine and aloe vera, are either made from trees or contain components of trees as inactive ingredients. Nowadays, research is still ongoing in the hope of developing more medicines from trees. In a recent study at the University of Bath in the United Kingdom, scientists have discovered a novel way of making common pain killers such as ibuprofen from pine trees instead of crude oil. This study is remarkable because pine trees are a renewable resource.

Trees as ingredients in medicine can be processed in different ways. One example is the use of cellulose ether, which can be extracted from bark of trees. Manufacturers use cellulose ether to provide a strong outside coating for tablets. It is also used as a thickening agent in liquid. Pharmaceutical companies use cellulose ether in medicine because of three

main reasons. First, it composes of strong hydrogen bonds and compresses well to hold tablets together. Second, it is a great binder, ensuring accurate dosage of the medications. Finally, it is a natural ingredient so it is nontoxic to humans.

Trees not only help provide us with medicine that saves lives and relieves ailments, but they also help purify the water we drink, clean the air we breathe, and provide some fruits we eat. All in all, trees are vital parts of our societies and our lives. Without them, lives may not be sustainable.