 第十篇： Less Is More It sounds all wrongdrilling holes in a piece of wood to make it more resistant to knocks. But it works because the energy from the blow gets distributed throughout the wood rather than focusing on one weak spot. The discovery should lead to more effective and ligher packaging materials. Carpenters have known _____1_____ centuries that some woods are tougher than others. Hickory, for example, was turned into axe handles and cartwheel spokes because it can absorb shocks without breaking. White oak, for example, is much more easily damaged, _____2_____ it is almost as dense.1 Julian Vincent at Bathe University and his team were convinced the wood’s internal structure could explain the differences. Many trees have tubular vessels that run _____3_____ the trunk and carry water to the leaves. In oak they are large, and arranged in narrow bands, but in hickory they are smaller, and more evenly distributed. The researchers _____4_____ this layout might distribute a blow’s energy throughout the wood, soaking up a bigger hit. To test the idea, they drilled holes 0.65 millimetres across into a block of spruce, a wood with _____5_____vessels, and found that_____6____ withstood a harder knock. ____7____ when there more than about 30 holes per square centimeter did the wood’s performance 0drop off. A uniform substance doesn’t cope well with knocks because only a small proportion of the material is actually _____8_____. All the energy

from the blow goes towards breaking the material in one or two places, but often the pieces left ____9___ are pristine. But instead of the energy being concentrated in one place, the holes provide many weak spots that all absorb energy as they break, says Vincent. “ You are controlling the places _____10____ the wood breaks, and it can then absorb more ____11____, more safely. ” The researchers believe the principle could be applied to any material____12____ example, to manufacture lighter and more protective packaging. It could ____13____ be used in car bumpers, crash barriers and armour for military vehicles, says Ulrike Wegst, ____14_____ the Max Plank Institute for Mental Research in Stuttgart. But she emphasizes that you ’ d _____15_____ to to design the substance with the direction of force in mind. “ The direction of loading is crucial, ” she says.1. A) for B) since C) in D) at2. A) but B) although C) and D) despite3. A) down B) over C) up D) into4. A) discovered B) concluded C) found D) thought5. A) no B) per C) each D) every6. A) the idea B) it C) they D) the spruce7. A) If B) Just C) Only D) Rarely8. A) effected B) beaten C) slapped D) affected9. A) behind B) beyond C) for D) intact10. A) which B) where C) that D) there11. A) water B) air C) energy D) safety12. A) among B) in C) as D) for13. A) also B) besides C) else D) yet 14. A) over B) at C) around D) on15. A) necessity B) must C) need D) had 100Test 下载频道开通，各类考试题目直接下载。详细请访问 www.100test.com