

Tests again. We never seem to be that far from tests. We have either just¹ finished them or we're just about to take them. Once the tests are over, though, it is not long to the winter vacation. And this is a great time of year. I know it is cold and I know it gets dark early and I know it is a little bit depressing², but it is nearly³ Christmas! We can decorate⁴ the classrooms, sing Christmas carols⁵, write letters to Santa and generally⁶ look forward to⁷ Christmas day. No matter how⁸ old I get, I will always enjoy Christmas. Probably⁹ more than my daughter!

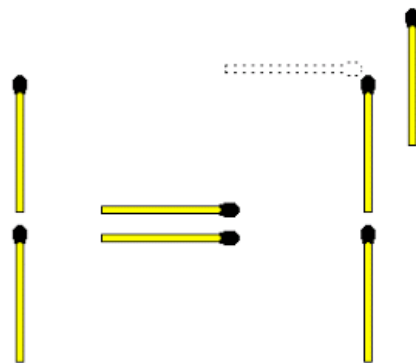
Something You Didn't Know (Rockets¹⁰)

1. The first use of a rocket (a kind of firework) was in 1232. Chinese soldiers¹¹ fired them at an invading¹² Mongolian army¹³.
2. The first rocket with liquid fuel¹⁴ was launched¹⁵ in 1926.
3. In the Second World War¹⁶ the German army¹⁷ built the first rocket that could reach space. It was called the V2 rocket and could reach a height of 206km.
4. Rockets are very expensive. It costs about \$10,000 per kg¹⁸ for a rocket to fly.
5. Rockets are very noisy but for the passengers they are completely silent because the rocket travels faster than the sound waves¹⁹ it makes.
6. To leave Earth's gravity²⁰ a rocket has to travel at 40,000 km/h.



15 differences (really this time)

Last Week's Answers



One equals one to the 1st power!

Announcements

Tests for everyone on Tues and Wed.
 Tests for 5th and 6th grade on Thurs.
 Deadline³⁴ for elective courses³⁵ on Fri.
 GTEC for many people on Sat. Busy.

News

Blue Origin Successfully Takes Off And Lands

Last week the rocket, Blue Origin, took off from its base²¹ in Texas. There is nothing unusual²² about that. Rockets fly from that area very often. The interesting news comes because the rocket then landed safely²³ a short while later²⁴. The rocket is funded by²⁵ Jeff Bezos. You may not have heard his name, but you will definitely²⁶ know the company he started. It's called



All rockets have to carry the fuel they need to escape from the Earth's gravity²⁷. That varies²⁸ depending on²⁸ the size and weight of the rocket but it is usually²⁹ a lot. This fuel is not needed once the rocket is in space and the empty canisters³⁰ are jettisoned³¹. They usually land in the sea (75% of Earth's surface is sea) and cannot be used again.



Blue Origin is different. When it comes back it can hover³² and then land safely and gently. That means it can reuse all of its parts again. Why is that good? Because it is expensive to keep having to make rocket parts. This will make space travel cheaper, easier and hopefully more accessible³³.



1. Just わずかに 2. Depressing 元気を失わせる 3. Nearly もう少しで 4. Decorate ~ヲ飾る 5. Christmas carol クリスマス讃美歌 6. Generally 大まかに 7. Look forward to ~に楽しむ 8. No matter how どんなに~であおうとも 9. Probably かもしれない 10. Rocket ロケット 11. Chinese soldiers 中国軍人 12. Invade 侵攻する 13. Mongolian army モンゴルの陸軍 14. Liquid fuel 液体燃料 15. Launch 打ち上げ 16. Second World War 第2次世界大戦 17. German army ドイツ陸軍 18. It costs about \$~ per kg to 1キロ当たり~ドルかかる 19. Sound wave 音波 20. Gravity 重力 21. Base 基地 22. Unusual 普通でない 23. Land safely 無事着陸 24. A short while later ほんのしばらく後に 25. Funded by 資金援助をしてもらう 26. Definitely 絶対に 27. Escape from the Earth's gravity 地球重力からの脱出 28. Depend on による 29. Usually 普通に 30. Canister 容器 31. Jettison 投げ捨てる 32. Hover 浮かぶ 33. Accessible 使用しやすい 34. Deadline 締切 35. Elective course 科目選択