

12/6/2021 (#20 this year)

Did you enjoy your tests? Sorry. Stupid question. I bet you are glad that they are over. What are you going to do now? Relax and sleep, I expect. And now we can start the run up to¹ Christmas. I love this time of year. We start practicing Hallelujah, making Christmas cards, making stained glass, and putting up Christmas decorations. I know some people don't like it because it is getting colder and darker, but I think it is a wonderful time of year. Very happy. I have always loved Christmas. I loved it as a child. I loved it as an adult. And now I love it as a father. I love being Santa for my daughter and making her happy.



15 differences

Last week's answer



Something you didn't know about plastic:

1. Plastic was invented in 1907 by Leo Baekeland, in Belgium. He called his product Bakelite.
2. The word "plastic" comes from the Greek "plastikos", which means "capable of being shaped or molded³".
3. 11% of household waste is plastic.
4. Unless it has been recycled or burned, every piece of plastic made since 1907 still exists today. Plastic does not decompose⁴ for hundreds of years.
5. Only 9% of plastic waste is recycled.

Suntory Makes 100% Plant-Based PET Bottle

Last week, Suntory announced that they have managed to make a 100% plant-based⁵ PET bottle. It is still only a prototype⁶, but it is a step in the right direction⁷. PET stands for polyethylene terephthalate. That is a hard word to say. It is basically polyester. Bottles are made by heating the PET until it is a liquid and then it is poured into molds. It is very strong, very easy to use, and very cheap, which is why drink bottles are made from it. The problem is that it does not decompose. A PET bottle will take about 800 years to decompose, and a plastic bag will take about 1000 years. This is because these things are not natural so there are no bacteria⁸ or organisms⁹ that exist to break them down. One way of fixing this problem is to create bacteria that eat plastic. Another method is to make bottles that do decompose, and this is what Suntory are trying to do. PET is made from 70% terephthalic acid and 30% mono ethylene glycol. Suntory's idea is to use wood⁶ chips and a type of syrup. If they can mass produce it, they would reduce the amount of plastic waste in the world. Coca-Cola is also introducing one. However, many people say that replacing plastic with plant-based materials just swaps one problem for another. We have less plastic and lower amounts of CO₂, but the plants have to be grown and transported. Growing large numbers of plants for industrial purposes¹⁰ can be very harmful to the environment.



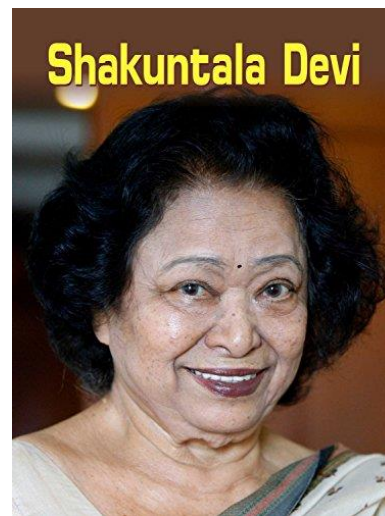
- 1.run up to～までの期間
- 2.capable of できる
- 3.mold 型
- 4.decompose 腐敗させる
- 5.plant-based 植物由来
- 6.prototype 原型
- 7.a step in the right direction 正しい方向への一歩
- 8.bacteria 細菌
- 9.organism 有機体
- 10.industrial purpose 工業目的



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World record

Do you like math? I sat in on Mr. Konishi's 1st grade math class last month and I couldn't keep up¹. So, I think this world record might be out of my reach². An 11-year-old, Sanaa Hiremath (a very coincidental name!) in Florida, USA, got the world record for solving a 12-digit multiplication problem without using a calculator, pen or paper. That means she did it entirely³ in her head. Can you? I can't even do a 3-digit multiplication problem. Try this: $956,254,895,245 \times 859,248,695,124$. It took her 10 minutes. Sanaa has been good at math ever since she was 2. She has been home-schooled since she was 7. The world record for multiplication is held by Shakuntala Devi. She multiplied two 13-digit numbers in 28 seconds. She is a human calculator. People who can do this say that they see the numbers as pictures or stories, and this helps them to see the answer. (the answer to my question is 821,660,770,000,000,000,000)



Education is not the filling of a pail⁴, but the lighting of a fire.

A building

Let's have a look at Buckingham Palace this week. Buckingham Palace is very famous as the home of the Royal Family in the UK. Millions of tourists stand outside the palace, hoping to see the queen every year. However, the queen is not there all year round because she has other houses she lives in. She stays at Sandringham House from Christmas to February, Balmoral Castle in August and September, the Palace of Holyroodhouse in June and July, and Windsor Castle at weekends. Any other times, unless she is travelling internationally, she is at home at Buckingham Palace. You know when she is there because the flag flying over the palace is changed. When she is not there, the Union Jack is flying. When she is there the Royal Standard is flown.

Buckingham Palace was built in 1703 for John Sheffield. He became the first Duke of Buckingham, which is why the palace became known as Buckingham Palace. His illegitimate son⁵, Charles Sheffield, sold it to George III in 1761 and the building became royal⁶ property⁷. George III gave it to his wife, Queen Charlotte, and he never lived there. His son, George IV started to rebuild the palace because it was too small for him. He died before it finished and his younger brother William IV carried on renovating⁸ it, but he never lived there either. The first royal to live there was Queen Victoria, from 1837. She loved it until her husband died in 1861, and then she hated it. She spent most of her time in her other houses and rarely stayed in Buckingham Palace. Her grandson, George V, became the first monarch to spend most of his time there and use the building as a center of operations⁹.



- 1.can't keep up ついていけない 2.out of my reach 私にできない 3.entirely すべて
- 4.pail バケツ 5.illegitimate son 非嫡出の息子 6.royal 国王の 7.property 特有 8.renovate リフォームする 9.center of operations 本社