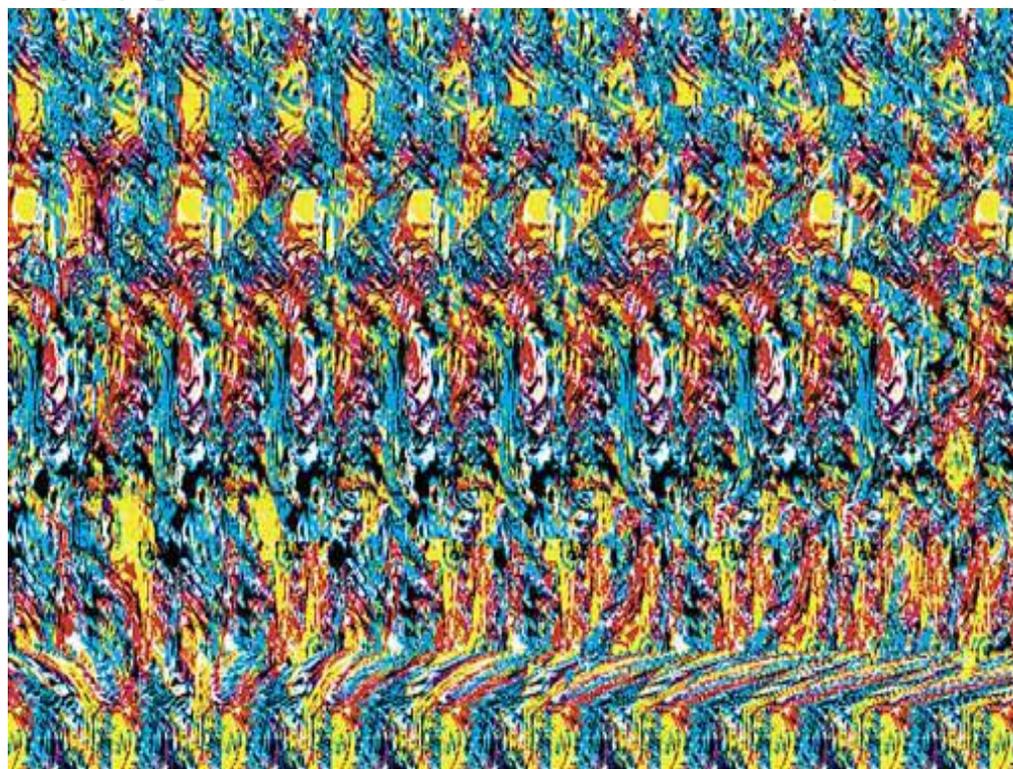


Tests. Sorry. Every time tests come around, I want to apologize to all of you. We make you memorize so many things. We make you learn so many facts. I know how hard it is. I remember sitting tests and hating it. Maybe that's why we make you do them. We had to do them when we were students, so now you have to do them. Like payback<sup>1</sup>. Or paydown, I suppose. So, the process of making tests, studying, taking tests, marking tests and returning tests goes on. An endless cycle<sup>2</sup> of testing. Try to have fun. Look on the bright side, it's Christmas soon.

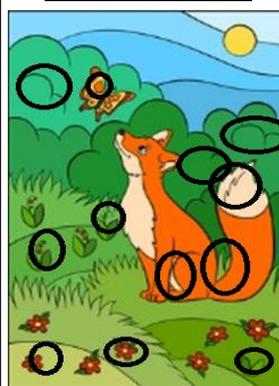
### Something You Didn't Know (Planes)

1. The Wright brothers flew the first airplane in 1903 for 40m. Today, the newest Boeing 787 can fly 16,000km on a single tank of fuel. Around the world, about 10 million people fly every day.
2. The world's fastest airplane is the Lockheed SR-71 Blackbird, flying at 3,529 km/h. A commercial passenger jet<sup>3</sup> travels at about 900km/h.
3. The longest non-stop flight is Auckland to Qatar. It is 14,534km and takes 18 hours! The shortest flight is between two islands off the coast of Scotland. It is 2.7km and takes 53 seconds!
4. A 747 can actually travel quite far with no engines. A 747 has a glide ratio<sup>4</sup> of 17:1. That means it can glide 17km forward for every 1km in height. From the average flying altitude<sup>5</sup> of 10,000m, it could safely glide for 170km. This has saved people's lives.

Magic eye picture – Ms. Taniki can't see these, so tell her what you can see.



### Last Week's Answers



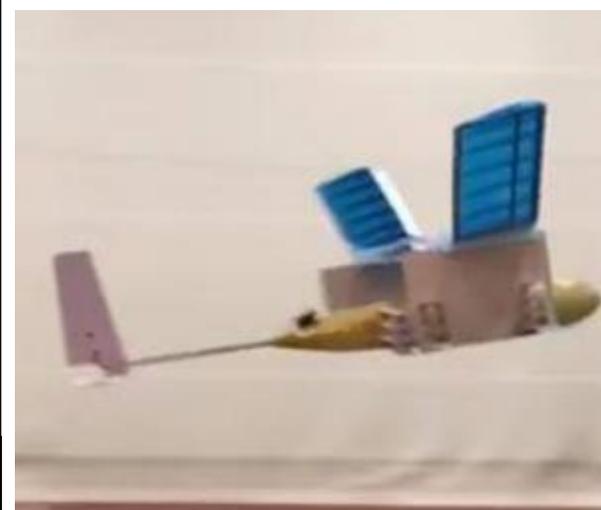
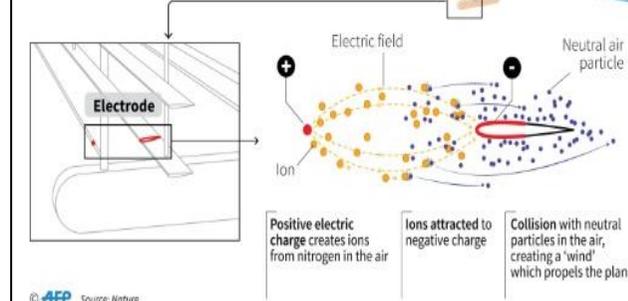
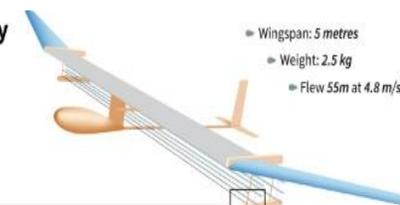
**Announcements**  
 Hallelujah practice one on Monday.  
 Don't forget your yellow books!!  
 GTEC on Saturday.  
 Then tests.  
 Yeah!

### First Plane With No Moving Parts Makes Flight

American physicists have successfully tested a plane that has no moving parts<sup>6</sup>. It does not fly with a jet engine or a propeller like all planes that we know, which means it is perfectly silent and very good for the environment. It uses supercharged<sup>7</sup> air to fly. It is like something out of a science fiction movie. Theoretically<sup>8</sup>, it could move in any direction and possibly even hover. Maybe we can have flying cars.

#### A plane powered by supercharged air particles

Electrodes accelerate the air and propel the plane forward



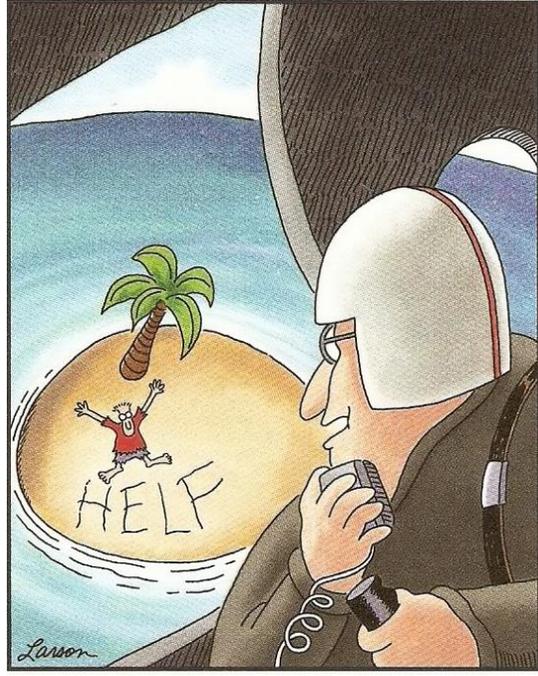
It has a series of parallel electrodes<sup>9</sup> that produce an enormous voltage. It is +20,000 volts at the front of the plane and -20,000 volts at the back of the plane. This high voltage at the front of the plane supercharges the air and splits the negatively charged nitrogen molecules, called ions. These ions move from the positive charge at the front of the plane to the negative charge<sup>10</sup> at the back of the plane.

As these ions move to the back of the plane, they drag air particles with them and create an ionic wind<sup>11</sup>. This gives the plane lift and allows it to fly. Because these electrodes are so light and don't produce much drag, these planes will be able to be much bigger and fly much farther and faster than modern planes. This is still a prototype, but who knows. It might also be possible to combine this propulsion system with modern jets and increase their speed.



1. Payback 仕返す 2. Endless cycle 無限の輪廻 3. Commercial passenger jet 商用ジェット機 4. Glide ratio 滑空比 5. Altitude 高さ 6. No moving parts 可動部分を持たない 7. Supercharged 過給機が装備された 8. Theoretically 理論上は 9. Electrode 電極 10. Negative charge 負電荷 11. Ionic wind イオン風

# ★ English News Page 2 ★



“Wait! Wait! Cancel that. ... I guess it says ‘help.’”

## World Records

Have you ever tried to hold your breath? I'm sure you have. Can you get past a minute? I can go 90 seconds!! If people get to two minutes it's impressive. Aleix Segura has the current world record for breath holding. His record is 24 minutes and 3 seconds. I'm sorry but I'm going to say that again. He held his breath for 24 minutes and 3 seconds!!!! That is half the length of a class. Next time you are bored in your English class, try it. Look at the clock. Take a deep breath. Hold it. And don't breathe again for 24 minutes. Good luck.

# ★ Where did it come from?★

Where did superglue come from? If you are like me, then you have probably glued all of your fingers together numerous times. Have you ever wondered how that superglue was invented? Well, it came about during World War 2<sup>1</sup>. In 1942, a group of scientists were trying to create a new way to make clear plastic gun sights<sup>2</sup>. One of their attempts<sup>3</sup> produced a mixture that stuck to everything it came into contact with. This was no use to the war, so they abandoned<sup>4</sup> it. However, in 1951, Harry Coover jr was working for Kodak and he realized that the mixture they had discovered would be an excellent glue. The first superglue was released in 1958 and I stuck my fingers to a shelf with it about 60 years later. I got so much glue on my fingers I couldn't use my phone.



# ★ An Interesting Sport ★

## Competitive Worm Charming

This might be the strangest sport I have found so far. I don't know how I am going to top it<sup>5</sup>. In competitive<sup>6</sup> worm<sup>7</sup> charming<sup>8</sup>, each player gets a piece of ground and they have to try to get as many worms out of it as they can. They can use any method that they want, except for digging, to get the worms out and the person with the most worms at the end wins. The most common method seems to be tapping the ground rhythmically<sup>9</sup>. You should try.



All you've got to do is decide to go and the hardest part is over.

— Tony Wheeler —

AZ QUOTES

1.World War 2 第2次世界大戦 2.Gun sight 照準器 3.Attempt 試みる 4.Abandon 辞める 5.To top~の頂上に登る 6.Competitive 競争の 7.Worm ミミズ 8.Charming を魔法のように操る