

# CROSSROADS

CROSSROADS Language Studio's Newsletter February, 2022

## STATIC ELECTRICITY

Winter gives us a very much needed respite from incessant humidity present throughout much of the year. Low temperatures in the dead of winter are perhaps not everyone's cup of tea, but here in Ehime the season is relatively short and not too cold. February usually receives some snowfall in the mountains and thus provides a short period of opportunity to wear winter jackets and hats. Low humidity in the air results in high visibility at long distances, making a mountain hike a particularly rewarding weekend activity.

Most modern warm clothes are made of synthetic fabrics, which efficiently trap body heat and expel moisture which builds up from exertion. A combination of low humidity, cold air and synthetic fabrics create excellent conditions for conducting electricity. The result is an unpleasant zap, whenever we try to touch things in our surroundings.



Discomfort due  
To electric shock.  
(Electric shock)



Electrostatic breakdown  
of electric parts.  
(ESD)



Adhesion of foreign  
Materials such as dust  
(Electrostatic force)

When the air is humid, charged electrons freely travel between objects and surfaces, with positive and negative charges balancing each other out all the time. However, in low humidity, the objects begin to build up a charge over a long period of time, and when a positively charged object touches a negatively charged object, a near-instant exchange of electrons occurs, leading to an audible and often visible spark between these objects.

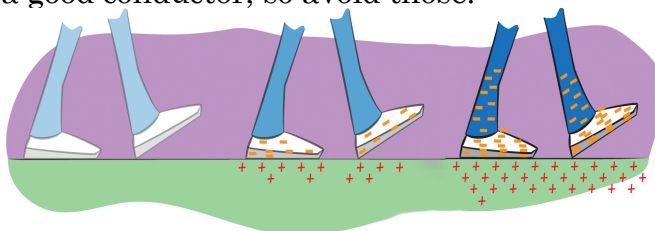
And as much as it can be incredibly annoying to get mildly electrocuted at home, several times a day, this phenomenon can be put to good use in many applications.

One such application is printing with a laser printer, where ink particles are charged up and travel straight onto a paper carrying an opposite charge. Nowadays, cars are painted using static electricity, ensuring that spray paint goes directly onto the car's body, minimizing waste into the air.

But what about us? Nobody wants to get passively zapped by electrons for no good reason. There are proven methods for reducing static shock.

One good idea is to keep humidity in the house above 50% and, if it's practical, spraying water mist onto dry surfaces to increase their moisture content.

Our shoes are perfect insulators and effectively prevent electrons discharging to our body, but some soles, such as rubber, are a good conductor, so avoid those.



Electrons transfer from the carpet to your shoes

Additionally, before you reach for your expensive smart-phone, touch a metal surface attached to a wooden surface to get rid of static charge, as phones have delicate parts sensitive to excess electricity.

*Article by Marek*

## Net News

**NET LESSONS:** Too busy to come to CROSSROADS?

.... Try our *lessons on the net!*

For more info and useful vocabulary, head over here:

<https://www.britannica.com/science/static-electricity>

# Some Thoughts for the Month



**Joshua Says:** I think that we are settling in very nicely in our new school building. And I get the feeling that you, our students, are quite satisfied too! It's gratifying to see the "Open House" is being used more than in the last school, with many of you coming in early to "chill out" before your lessons start. Do feel welcome to come any time, even if it's not your lesson day, and enjoy the facilities, and the view!

**Junko Says:** I am going to add some more TV programs in our Open House this month. They will be current world news programs in English from various countries such as the U. K., Australia, Canada, the U.S.A., New Zealand and Europe, as well as Japan. Japan has two English news channels, NHK World News and Nippon TV News 24. I hope these will prove to be useful to you.



**Marek Says:** I am anxiously awaiting Spring, checking out weather forecast 2 weeks in advance hoping to see temperatures in double digits. A few days ago, I got very excited when I saw 3 yellow butterflies in my garden looking for nectar in winter flowers and, on a brick wall, I spotted a huge grasshopper catching early morning rays. It immediately put me in a Spring mood for a whole day. One more month to go!

**Mandey dit:** Bonne Saint-valentin à tous et ne mangez pas trop de chocolat!! Un peu d'amour en chiffres ce mois-ci. En effet, selon un sondage réalisé par Opinionway, 53 % des couples français avouent avoir posté une photo heureuse ensemble alors que ça n'allait pas dans le couple. Comme quoi, les reseaux sociaux ne reflètent absolument pas la réalité. De plus, 64 % des Français estiment que les couples ne devraient pas s'étaler sur les réseaux sociaux. Je crois bien qu'ils sont jaloux, très jaloux!!! Je me demande bien ce que pense les japonais de ceci.

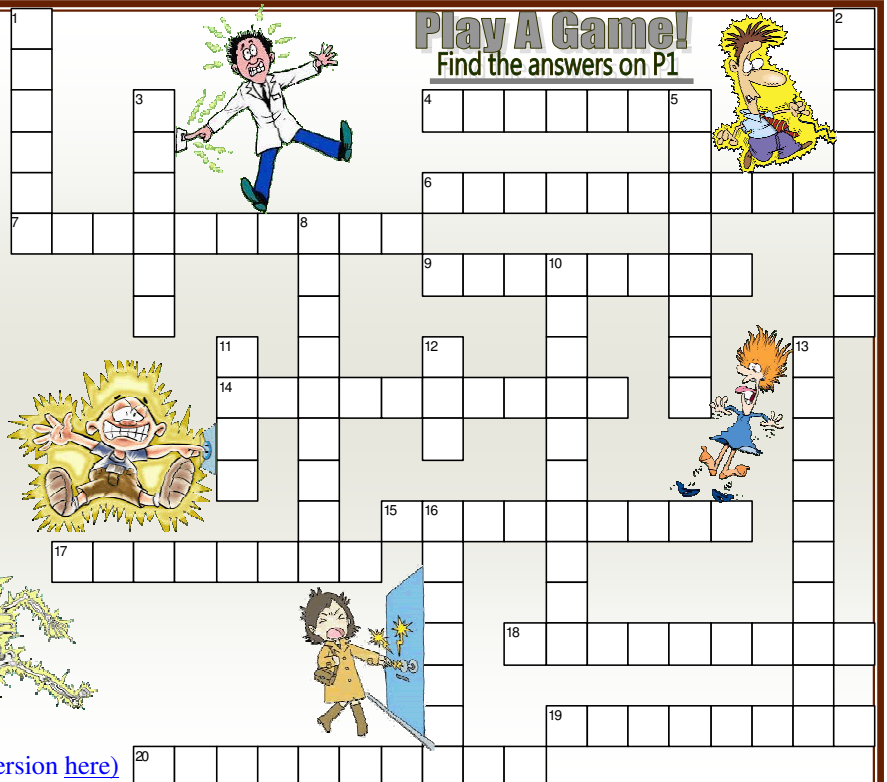


## ACROSS

- 4 opposite of aggressive
- 6 able to accomplish a purpose
- 7 direct the course of something
- 9 water in the atmosphere
- 14 materials to protect from noise, heat, etc.
- 15 tiny pieces of anything
- 17 easily broken or damaged
- 18 not of natural origin
- 19 currently happening or existing
- 20 comparatively

## DOWN

- 1 cloth often for wearing
- 2 disturbing, irritating
- 3 to a moderate extent
- 5 making a great effort
- 8 continuing for a long time
- 10 not easy to believe
- 11 a walk usually for exercise
- 12 strike suddenly
- 13 observable with the eye
- 16 able to hear



**Play A Game!**  
Find the answers on P1

(print version here)

Select the correct interpretation, A, B or C for each of the proverb below:

"The cat may look at the king" – A: Everyone, even a king, should have a pet.



B: A person of lower status isn't completely restricted in what they may do in the presence of their superior.

C: You shouldn't try to hide when your boss walks into the office.

"Softly, softly, catchee monkey" - A: You have a better chance of achieving your goal if you proceed discreetly and carefully.



B: If you want to catch a monkey, don't make a lot of noise.

C: Get a good night's sleep and have pleasant dreams.

"A little knowledge is a dangerous thing" – A: Knowing too much is dangerous.



B: It is better not to know anything than to know everything.

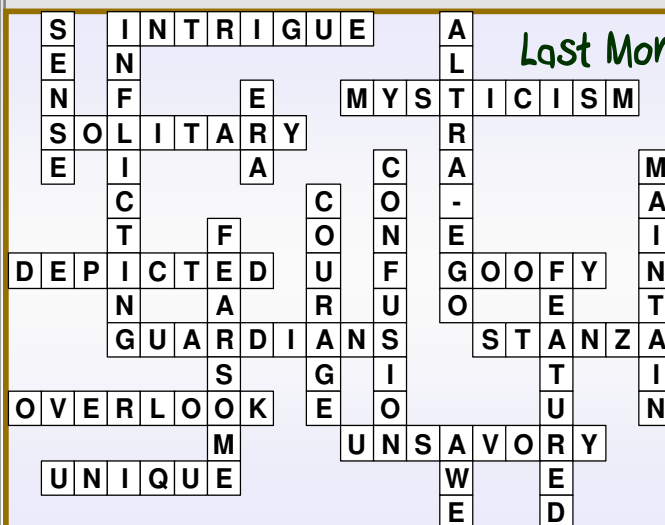
C: A small amount of knowledge can mislead you into thinking you are an expert on the subject.

"Lie down with dogs, wake up with flees" – A: Sleeping in and being late for work can get you fired.



B: You can gain some information from everyone you associate with.

C: If you associate with dishonest people, you'll get a bad reputation.



## Last Month's puzzle Solution

### ACROSS

- 2 fascinating, interesting, curious
- 5 a belief beyond ordinary understanding
- 6 preferring to be alone
- 11 represented in a drawing or in words
- 12 foolish
- 14 protectors
- 15 part of a poem
- 16 fail to notice
- 17 unacceptable, displeasing
- 19 outstanding, one-of-a-kind

### DOWN

- 1 a general conscious awareness
- 2 causing harm
- 3 (two words) another version of oneself
- 4 a distinctive period of time
- 7 disorder, lack of clear thought
- 8 cause to remain in place
- 9 showing no fear
- 10 frightening
- 13 highlighted, given prominence
- 18 a great feeling of wonder or admiration



Don't forget... Our SPECIAL 1+1 Campaign offer! Up to 50% off!!

See our notice board, or ask Junko in our office, for the details.