## GOOD NEWS SUNDAY FAIRFIELD

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This is our 6<sup>th</sup> edition of Good News Sunday Fairfield. We want to continue bringing you good and heartwarming stories in these difficult times.

A 102-year-old women had Covid-19 twice and survived! She came home after a week in the hospital.

How was your thanksgiving? Well for some people they were surprised to see food on their plates. Weddings in Covid-19 have been mostly canceled. That happened to two people who were preparing a nice wedding with a lot of food. But when the wedding got canceled all that food came to good use and were served to many people in need this Thanksgiving.

Have you ever been a donor? Well, a 64-year-old school custodian was looking for someone to be a donor and found a 3<sup>rd</sup>grade teacher that was kind enough to donate her own kidney.

"World loneliest elephant" was very, very, sad and lonely since his partner died and he was also overweight and he was in chains. But a celebrity came to help. Her name was Cher. Cher helped him by advocating for his rights and got the elephant moved from the closing Islamabad's zoo in Pakistan to the Cambodia Wildlife Sanctuary.

You might have coins like pennies, dimes, quarters laying somewhere. A new homeowner found coins in a drawer in the new house. They were worth \$25,000 dollars! They were rare gold and silver coins. The new homeowners gave the money back to the people who left it there.

Have you gotten a surprise gift for your birthday? One little boy got a special gift from a...Mailman! The mailman in Alabama gave the boy \$1 bill and four quarters. Chip, the boy, is saving to buy a Spider-Man action figure.

#### Research

### Solar panels

A solar panel is made of smaller units called solar cells. The most common cells are made of silicon as semi-conductor. Silicon is the seventh most abundant element in the universe. In solar cells, crystalline silicon is sandwiched between conductive layer. Silicon atoms have a strong bond together that keep the electrons in place so no current can flow.

Solar cells use two types of silicon. A n-type silicon has an extra electron. The other type is a p-type silicon that has extra hole or a place with no electron. The p/n junction is where the two layers meet and in this space electrons can wander across.

These imbalances in the two layers create a positive charge on one side and a negative charge on the other side. This pushes electrons one way and holes the other way so there is less chance of lose electrons filling holes and not creating energy.

Light is a beam of photons. Photons have a lot of energy so if one hits a silicon particle hard enough it can knock an electron lose creating a hole. The magnetic field in the solar panels pushes the loose electrons to the top where they are collected by metal fingers and ran through a circuit like powering a light bulb.

After going through a circuit, the electron goes back into the bottom and fills a hole. Making the system reusable. One cell only puts out about a half volt but you can string them up and make more power. 20 cells are enough to charge a cell phone.

A photon has to hit the cell at a certain angle and way or the energy will be reflected, absorbed or lost to heat. A photon cannot be reflected on another surface because it will not have enough energy to knock an electron loose. A solar panel can only work where there is a lot of sunlight and during the day. So, to be fully renewable we will have to find an efficient way to transfer energy from sunny places to places were it is cloudy and night. In fact, California has so much energy it sells to other states.

Most cells are not efficient enough to convert all of the photons it's capturing to energy. We will have to find a better way to make the cells so they can make more energy. If solar panels where cheaper developing countries in sunny places would benefit a lot.

You have to store the energy in batteries and most batteries are not capable of holding the energy and knowing when to release it but that is a story for another time.

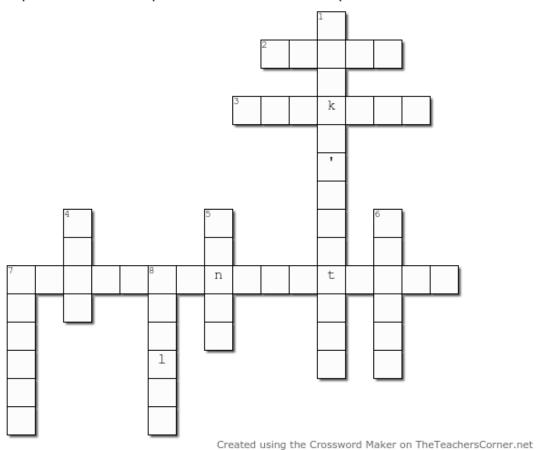
Riddle: I get bigger each time you take away from me. What am I?

Have you played chess? well it is not to late to learn! Got to Chess.com and learn! If you already play chess then here is a good tip: make a wall of pawns diagonal so if someone takes your pawn you have back up.

Name:

Fall

Complete the crossword puzzle below. There are no spaces in the answers.



Brain Power

#### Across

- 2. a sauce you put on turkey or mashed potatoes
- 3. a bird commonly eaten on thanksgiving
- **7.** a sport known for being played on Thanksgiving

#### Down

- 1. thing that is a carved pumpkin
- 4. a common desert on Thanksgiving
- **5.** something kids get if they say trick or treat
- 6. things you have to rake
- 7. a fruit that is juicy and red
- 8. the temperature during fall

#### **Announcements**



Have you ever wanted to see awesome art? We now have a great option in town the Moyō Gallery, located at 43 Unquowa Rd.

Moyō is Japanese for pattern, design, and figure. This awesome gallery showcases all of these things. The current show is the (small) wall and the show changes every month.

Check them out at https://themoyogallery.com/



Luken + Co. holiday sale is going on now; prices as marked. Plus, Good News Sunday Fairfield readers can enjoy 15% off your order now thru 12/31 with code GOODNEWSSUNDAY. Thank you for supporting a local, family owned business this holiday season!

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#### **ABOUT US**

We hope you enjoyed this paper. Prepared by Sofia (9) and Luke (11). If you like this, if you want to receive in digital format or if you don't want to receive it all, please let us know. If you see good news email us at goodnewssundayfairfield@gmail.com Have a great Sunday.

# **Happy Holidays**



We will be taking a break for the holidays after our next edition which will be delivered next Friday. When we return, for the winter, we will be delivering our newsletter digitally only. If you would like to continue receiving heartwarming good news please email us at goodnewssundayfairfield@gmail.com.

Riddle answer: a hole