

The Horizon Newsletter

“Our goal as teens of this community is to inform the public in the Triangle area about our generation’s view on topics in our world. We hope to connect with others of our age and allow them to voice their opinions on relevant issues. Above all, we would like to encourage our peers to do their part as active members of this society.”

Hello everyone! We hope you are all having a fantastic February so far! Obviously, this issue’s theme is Valentine’s Day, hence the colors. This month, we would like to spread the message of love. It’s something that is very important in the lives of many people, and has proven to be the strongest motivation. This holiday, we encourage you to take a moment to appreciate your loved ones, and those who love you. They are, by far, the most important things you will ever have. Thank you! We appreciate you! Enjoy your read!

Current Events

By: Shrihan

- February 11: Cary Players presents “Almost, Maine” by John Cariani
Award-winning author John Cariani creates witty and heart-warming moments of love and friendship in a mythical northern town beneath starry skies and the northern lights.
- February 16: Share & Care has to offer! People with disabilities, parents and care providers are invited to this FREE event for a time of resource sharing and networking. Service animals are permitted. Community organizations and agencies that offer services for persons with disabilities will be on hand to share information about what they have to offer to the community.
- February 17: Pole Sport Organization presents the Triangle Pole Championship
Be inspired by the athleticism, grace, mobility, and fluidity of dance - on a pole. Join Pole Sport Organization, the world's largest professional and amateur pole dance competition, where over 100 dancers will perform at this regional event. Cheer for beginners taking the stage for the first time, to professionals vying to move on to the U.S. National finals.
- February 18: Friends of Page-Walker Concert Series: Brian Reagin
Brian Reagin, violinist and Concertmaster of the North Carolina Symphony, returns as a favorite to the Friends Concert Series. Reagin, who captivates audiences with his brilliant performances, will treat concert-goers to a classical repertoire on his Lorenzo and Tomasso Carcassi violin made in Florence, Italy in 1763.
- CHECK FEBRUARY 23rd FOR A HUGE LIST OF EVENTS:
<http://www.townofcary.org/connect-engage/calenda/-cum-2/-cary-2017>

Super Bowl: The Final Football Game

By: Sumant

As you all know the Superbowl occurred on February 3, 2018. After the game, the Philadelphia Eagles won by 41 to 33, against the Patriots. This is the first Super Bowl game the Eagles have won, which makes the team proud of

their efforts. Thank you for those singers who performed at the halftime show; Justin Timberlake, Pink, and Leslie Odom Jr., who sang. Congratulations to the Philadelphia Eagles for winning their first Super Bowl!

Boy Scouts work with Girl Scouts

By: Sumant

Boy scouts reversed their rule of not allowing girls into their club, which makes many Boy scouts outraged. Some girls were enraged, because they already have a club and their own award ceremony. Boy scouts allowed Girl scouts to join the club so they could earn their Eagles, which many people think is quite rude and offensive to the Girl scout Organization. It shows embarrassment to girls all around the world, who participate in Girl scouts. Boy scouts feel it is not fair for Girls to earn their eagles. For those who participate in Scouts, what is right for these Girl scouts to do? You can check the link below for more information.

<https://www.theatlantic.com/politics/archive/2017/10/how-will-the-boy-scouts-decision-affect-the-girl-scouts/543204/>

Charity of the Month

By: Amuktha Dasari

Cancer is one of the leading causes of death in the world. February 4th, 2018 is being recognized as World Cancer Day, to raise awareness and increase funding for the next generation of cancer research. In their lifetimes, almost every person will be affected by cancer in some way. Relatives, friends, and spouses are lost; lives are disrupted and families torn apart. The faster we find a cure for cancer, the faster we can ensure that everyone can live their lives peacefully and safely. To support the cause, there are many things you can do. The simplest action to take is to donate. Donating to charities that support cancer research can help us progress towards our goal. You can find a list of charities to donate to [here](#).

You can also learn more about cancer and how it affects our world [here](#).

Suicide Prevention

By: Pranay Koneru

Over one million people commit suicide every year. That means that there is about one death every 40 seconds or about 3,000 per day. So what can we do to help? Well according to the National Suicide Lifeline there are five steps that anyone can take to help someone who is suicidal. First of all, you should ask them if they are contemplating suicide. Although it may be a hard conversation to have, just remember you are trying to save a life. Second, listen to that person. Listen to why they want to commit suicide. Ask them why they are so unhappy. Third, be there for them when they need you. Loneliness can make a person feel as if no one cares for them. This can cause them to become depressed and eventually become suicidal. By being there for someone you are not only showing them that you care about them, but you are also giving them a reason not take their own life. Four, help the person reconnect with estranged loved ones or friends. By doing this you helping them establish meaningful and important relationships that they can depend on for support. The last step is to check in on them every once in a while to make sure that they are okay. This is another way to show that person that you care about them and want to help them. There are also many impactful stories about suicide survivors that can help give some insight as to what is going through people's minds as they are contemplating suicide. One such story is that of Kevin Hines. In September of 2000, Mr. Hines jumped off of the Golden Gate Bridge at the age of 19. He was lucky enough to survive the jump which has been an attempted method of suicide for over 2000 people. Now 18 years after the day he almost died, Mr. Hines is using his experience to help people and prevent more suicide based deaths. If you want to know more about Kevin Hines's story you can read the whole thing [here](http://www.kevinhinesstory.com/bio/): <http://www.kevinhinesstory.com/bio/>. We here at Horizon hope that by educating more people about suicide prevention we can help to save lives. If you or someone that you know is experiencing suicidal tendencies please call the suicide hotline at 1-800-273-8255.

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Health

By: Pavitra Madala

In your regular life, you most likely forgot some things. Say you forgot to do your homework or you forgot that you were going to go somewhere. This behavior is customary for all humans. Although, there is a disease that causes you to forget things.

Alzheimer's is a disease that makes a person experience memory loss, and other mental functions. Confusion is one of the symptoms as well. Previously, it was a disease with no cure, but you can take medications in order to improve symptoms, but now, researchers have found a treatment; Vitamin B-3.

Researchers have concentrated on how nicotinamide riboside (NR), a form of Vitamin B-3, affects the brain's capability of repairing DNA, something that works for Alzheimer's. They have done this research on mice. They added NR to the mice's water, for 3 months, and after that, they noticed a difference. Compared to the controlled mice, the NR-treated mice's brains were able to repair its DNA when it learn new things, stores new memory, or gets damaged.

This new information can help them generate a cure that can treat Alzheimer's.

To learn more, visit <https://www.medicalnewstoday.com/articles/320879.php>.

Science Olympiad

By : Harvik Kolla

Recently, the Regional Middle School Science Olympiad competition took place allowing only 7 teams out of 40 to advance to the state tournament. The Regional Tournament allows kids and schools to express their knowledge of science into many events. The events range from Anatomy and Physiology to Hovercraft and Optics. The events go from pure knowledge and studying to constructive thinking and creativity. Kids have the chance to represent their school in The NC Science Olympiad Competition and get individual prizes as well as team trophies for demonstrating excellence in their designated events. The results this year were outstanding with almost every school getting at least 7 medals. So many schools to choose from but only the best of the best get provided a chance to go to the state competition. Whether it's the school's resources , the coaches encouragement , the parent's worrying or the student's academic capability, the top schools are ranked at : <https://app.avogadro.ws/nc/raleigh--regional-b/>

Congratulations to all the schools that participated to enhance knowledge in STEM and provide experience . A hearty applause to the top 10 and the schools that advanced to compete in the NC Middle School Science Olympiad. In addition to this, NC is hosting the 2020 National Science Olympiad Competition.

If you want to know more, visit <https://www.sciencenc.com/>

Technology

By: Harvik Kolla

Google's DeepMind technology has been developed to help diagnose eye disease. The London based DeepMind has to go through data of retinal scans to help match disease efficiently and effectively. Scientists claim that this might be the first significant use of AI in healthcare. Deepminds algorithm has been trained use 3-D retinal scans to match the scans provided by MoorFields. Since the data has millions of pixel information, this is very accurate and can learn to diagnose the three main eye disease : " Glaucoma , Diabetic Retinopathy and Age-Related Macular degeneration". The talk has arised whether this should be implemented in hospitals. "Peng Tee Khaw, director of research and development at Moorfields, said: "I am optimistic that what we learn from this research will benefit people around the world and

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help put an end to avoidable sight loss.” (Financial Times). This can be a very promising improvement or a waste of time, money and effort. Keep up to the news to see what the future will hold.

Submissions

Can video games be good for you?

By: Abhiram Dasari

The only thing any kid wants is to prove his/her parents wrong. Whether its the incredulous stories they told them when they were little, or the superstitions and fake information they got them to believe, parents have fooled kids for too long. However, there is one thing that bothers kids most of all: the “fact” that playing video games is bad for you. This article will decide once and for all whether that statement is fact or myth.

Let's start with the eyes. Lots of parents say that video games place too much strain on your eyes. According to EssilorUSA, a glasses company, “Excessive use of digital devices like tablets and computers can lead to eye strain, headaches, and dry eye”^[1]. However, the company says, certain measures can be taken to reduce these side effects. “To help prevent eye strain, make sure you have proper lighting to reduce glare, take frequent breaks to rest your eyes and blink often,”^[1] it says on their website. But that's not all. The company states on their website that “playing 3D video games can actually help identify early warning signs of ocular disorders; difficulty perceiving 3D game images can be a sign of eye problems that might otherwise go unnoticed and undiagnosed.”^[1]. This means that while many tests might have to be done to make the final diagnosis, playing video games can help identify some of these problems. Also, according to the National Institute of Health, “studies prove that playing action video games enhances key aspects of visual processing, including spatial resolution - meaning gamers can actually see things easier and clearer. And some doctors have even successfully used video game therapy to treat and correct amblyopia, better known as lazy eye.”^[1] This just shows that when played in moderation, video games aren't all that bad for your eyes.

Now let's go to the rest of the body. If you are a kid, you've probably heard the phrases “sit up” and “stop slouching” many times in your life. If you're a gamer, you've probably heard it even more. The thing is, those are good pieces of advice while gaming. If you game while extending your neck forward, hunching your back, and sitting on the edge of your seat for a long time, this can really start to affect your posture, and not in a good way. The muscles can start sagging, and the spine curves. But there's more to this than you might think. You might not think that you have that bad of a posture, but only have a slight ache in your neck after playing for an hour or more. Chiropractors like Adam Fields disagree. “That's postural syndrome, or more specifically what we call upper crossed syndrome,”^[2] Fields says. “It's caused by tightness of the trapezius and levator scapulae on the dorsal side, and tightness of the pectoralis major and minor. Your trapezius is the main one—it's the huge muscle in your upper back that's responsible for raising, rotating, and stabilizing the scapula along with extending the neck.”^[2] However, as always, there is a way to fix it. While you are gaming, you should use correct posture, and put the least amount of strain on your muscles as possible. “Sit up straight, put your shoulders down and back, and tuck your chin,”^[2] he says.

If you learn one thing from this, learn that everything should be in moderation. Too much of anything can lead to problems. Even if you use all these tips, sitting in one place for a long time can and will hurt you, both physically and mentally. While video games can be good for you in some ways, they are still bad for you in unnecessary quantities. And that doesn't count for the social quotient; while you are cooped up in your room playing video games, you could be going out with your friends. So, the overall consensus: sadly, our parents are right on this one.

Virtual Reality: A New Frontier

By: Vibhu

Virtual Reality. It's been popping up for the past years and many people have grown accustomed to the fact that we can experience a reality aside from our own and control it. Many people own VR sets but aren't aware how it works. Virtual reality tricks your brain into believing you are in a 3D world using many features. The first way it does this is with the stereoscopic display. This works by displaying two slightly different angles of the scene to each eye to make the viewer think he sees depth. There are also other components that go into the whole VR experience including Field of View and latency. Field of view or Latency is the extent of the visible world that can be seen at any given

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time. Eye tracking is possibly the final piece of the VR puzzle. An infrared sensor monitors your eyes in the headset so it knows where your eyes are looking in virtual reality. The main advantage of this is to make depth of field more realistic.

VR is also planning to be used throughout the work environment. Many companies are using VR to give employees a real-life experience of the work-setting to train workers. The way VR works is a very smart combination of different technologies all working together to create a great experience. From stereoscopic viewpoints to 3D audio, VR is here to stay.