

# What's Up In Space?

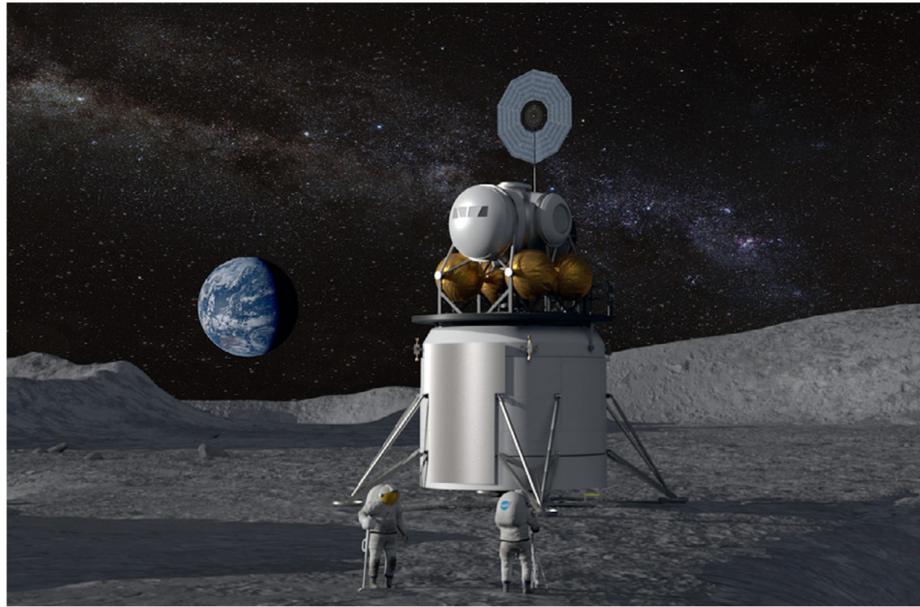
By Carter Sand

With the new year here, NASA is continuing to explore deep in space! Here are some of the great things they have done, and will be doing this year!

1. After lifting off in late July of 2020, the Perseverance rover has just about completed its 8 month journey to Mars. The rover is also carrying a small helicopter, Ingenuity, that will be used to test flight on Mars as well as calculate the best routes for future rovers. According to NASA, the rover has a few main goals. 1: Determine whether life ever existed on Mars. 2: Characterize the climate/ geology of Mars. 3: Prepare for Human exploration. The rover is equipped with some of the most advanced technologies and was assembled in Pasadena, California. NASA's Jet Propulsion Lab (JPL) is in charge of this mission to the red planet. Don't miss Perseverance and Ingenuity landing on the surface of Mars on Thursday, February 18th!

2. NASA is now more reliant than ever on commercial providers to get crew and cargo to and from the International Space Station (ISS). NASA and SpaceX recently announced the date for their crew-2 mission of their Crew Dragon Capsule, which will launch no earlier than April 20th of this year. The Capsule is equipped with a launch escape system which is able to carry the crew away from the rocket if something were to go wrong. NASA also set a date for Boeing's Starliner spacecraft to attempt its second uncrewed test mission. This flight will take place no earlier than March 25! Make sure to watch these spectacular vehicles take flight!

3. NASA has big plans for its new Artemis mission, for which they have already named 18 as-



tronauts, and will be selecting a new wave of astronaut candidates soon! The Artemis mission will carry the next astronauts to the moon! NASA announced they have begun welding the capsule that will carry astronauts to the surface of the moon, and that this mission is the first one in many with the moon as its destination. The Artemis mission is designed to prepare astronauts and NASA for future missions to Mars.

4. The International Space station is a massive laboratory in low Earth orbit, but it is so complex that it often requires maintenance. Astronauts inhabiting the ISS are either scientists, pilots, doctors, or engineers. The astronauts go outside the station to do repairs, replace batteries, and upgrade systems, along with installing new parts. For the first spacewalk of the year, NASA astronauts Victor Glover and Mike Hopkins replaced batteries outside the station and upgraded the external camera on a spacewalk that lasted 5 hours and 20 minutes. This was Glover's first spacewalk and Hopkins' 3rd. There will be many more spacewalks to come in 2021!

5. According to NASA, ice glaciers in Greenland

are melting faster than ever as a result of our rapidly changing climate. They also account for over half of total ice loss. NASA says that the frozen water in Greenland is enough to raise oceans 25 feet. Here is why the ice is melting. In Greenland, the oceans are cold and fresh toward the top and warm and salty at the bottom. As a result, the glaciers are melting from the bottom up and ultimately breaking off. If the ice were to melt, the coastal region could face major flooding. If we do not fix this issue we could face major consequences.

For more information about NASA's plans and what they have been up to, visit [nasa.gov](https://nasa.gov). For more information about Greenland and its melting ice visit: <https://theconversation.com/greenland-is-melting-we-need-to-worry-about-whats-happening-on-the-largest-island-in-the-world-150261>



This article was written by **Carter Sand**, a 9th grader at iLEAD Exploration. He enjoys soccer, baseball, and space and hopes to be an astronaut one day. This is his first year as a writer for the Leader.

# Science of Self Care

By Diamante Cameron

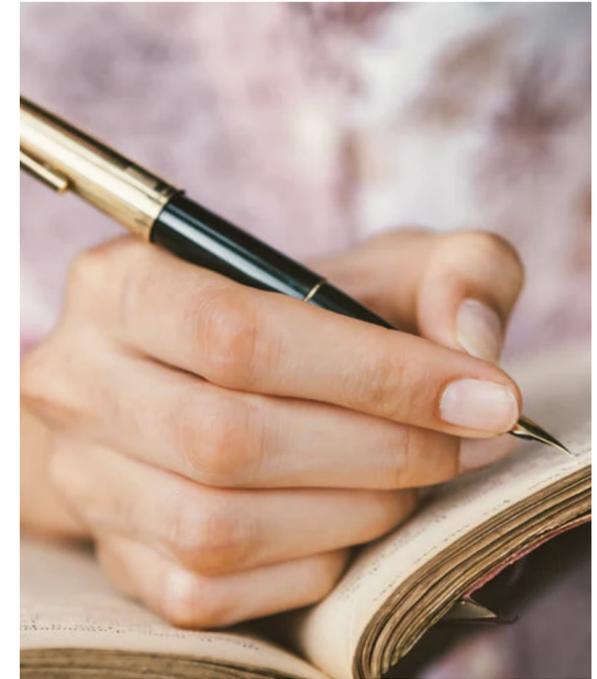
There is no denying that 2020 and 2021 have been extremely stressful years. Keeping your mental health a priority is definitely a challenge for most, and I think we all need some self care. But what self care is actually useful and what is just a myth? Well, to find that, we have to first understand what makes us happy.

There are four main hormones that keep us smiling, Serotonin, which is responsible for stabilizing our mood, digestion, and memory; Dopamine, which is mostly responsible for motivation; Oxytocin, which is responsible for bonding, both romantic and platonic love, trust, and calming; and lastly Endorphins, which are responsible for relaxation and strangely, pain relief. With that knowledge, it is pretty simple to understand what exactly triggers those hormones to be released.

A great option for triggering a variety of happy hormones is exercise. Walking releases

tons of Endorphins and being outside produces Vitamin D, something we all are lacking. Now, if you are in an area that you can't walk in, or you don't like walking, yoga is also a great option, considering it produces both Serotonin and Oxytocin. If you are looking for something a little bit more chill, meditation gives you Endorphins and Serotonin. If you want something peaceful but sitting in silence isn't your thing, a bit of skincare will release Serotonin. If none of that is your thing, dancing, whether it be ballroom or polka, will release Endorphins. Unfortunately, though, a lot of the things we are told are self care don't actually release anything.

You have probably been told about one hundred times that you should get off of your phone or computer, yet going technology free has no scientific effect on the brain. It does have sociological benefits and staring at a screen for prolonged amounts of time will damage your eyes. But in the happiness department putting your devices away does nothing. Both cleaning and writing are great things to do that won't release any hormones. Though having a clean space does release Serotonin the act of cleaning most of the time makes



people feel worse. Writing is amazing for your mental health overall, but it doesn't exactly make you happier. Now, I know everyone has at some time thought that just going to sleep would make everything ok. But sleep only releases Melatonin, a hormone that controls tiredness and REM cycles. Being well rested can have an effect on our mood but it won't make you happy.

All of this is obviously a generalization, and of course, different things will make different people happy. It boils down to making sure what you are doing to keep your spirits up is what you want to do, not just what people tell you that will make you happy. Now go hug a loved one because it releases Serotonin, Dopamine, Oxytocin, and Endorphins.

Sources: Healthline.com; nimh.nih.gov (National Institute of Mental Health)

**Diamante Cameron** is a 9th grade learner at SCVi. Diamante likes acting, writing, and reading excessive amounts of books. She lives with two cats, a dog, two birds, a fish, and a snole (snail).

