

### **OUR ANTHEM**

देश हमारा, धरती अपनी, हम धरती के लाल, नया संसार बसायेंगे, नया इंसान बनायेंगे।

सौ-सौ स्वर्ग उतर आयेंगे, सूरज सोना बरसायेंगे। दूध-पूत के लिए पहनकर, जीवन की जयमाल। रोज त्यौहार मनायेंगे। नया संसार बसायेंगे, नया इंसान बनायेंगे।

सुख-सपनों के सुर गूजेंगे, मानव की मेहनत पूजेंगे। नई चेतना, नए विचारों, की हम लिए मसाल। समय कोराह दिखाएंगे, नया संसार बसायेंगे, नया इंसान बनायेंगे।

एक करेंगे मनुष्यता को, सींचेंगे ममता-समता को। नई पौधके लिए बदल देंगे तारो की चाल। नया भूगोल बनायेंगे, नया इतिहास रचाएंगे। नया संसार बसायेंगे, नया इंसान बनायेंगे।

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### The Spirit of Vidya Niketan

### BORN TO BE FREE

## **EDITOR'S NOTE**

#### Dear Students

he world is changing around us in ways that we can barely comprehend. Besides COVID and the subsequent that have transformed our daily existence and economies, there is another frightening reality looming on the horizon. Climate change is the process that leads to glaciers melting, oceans gradually creeping over coastal lands, unseasonal rains, excessively hot summers, freezing or warm winters. It has all happened over the past few years. Those of us who live in Delhi know that this September had the heaviest rainfall this year since decades, even as rain in the monsoon month of August was deficient.

Indeed, according to the Delhi India Meteorological Department data, the Indian national capital witnessed seven heavy rain events this monsoon season so far, the highest in a decade, and these spells account for more than 60 percent of the rainfall recorded in the city. Experts say the increase in the number of heavy rain events in many parts of the country is directly linked to climate change.

The climate apocalypse is therefore upon us now. It is caused by the emission of greenhouse gases that in turn is caused by human beings burning fossil fuels and clearing lands from forests to pastures for agriculture. Human activity is therefore the main cause of climate change. It is one of the greatest global challenges that students must be aware of as they pass from childhood to becoming conscientious adults.

It has been both a privilege and a pleasure to edit this special edition of Vidyarthi. The response of students and faculty has been phenomenal, reminding us that we have indeed created a community in Vidya Niketan. For by now, we must know that community action is one of the ways of saving the world from ourselves.

### FROM THE PRINCIPAL'S DESK

oday, the role of a school is not only to pursue academic excellence but also to motivate and empower the students to be lifelong learners, critical thinkers, and productive members of an ever-changing global society. Converting every individual into a self-reliant and independent citizen, our school provides an amalgam of scholastic and co-scholastic activities.

The world today is changing at such an accelerated rate and we as educators need to pause and reflect on this entire system of education. Providing good quality modern education including a strong component of cultural values, environment awareness and physical education to all the children is the prime motto of Vidya Niketan.

While academic excellence is our major thrust, the school is also devoted to preparing students for life, grooming them to face the challenges of tomorrow, and encouraging them to be socially relevant. We constantly endeavour to always live up to this ideology and inculcate this into everything we do, with the aim that we will be able to ensure that our children grow to their full potential, groomed to pass out as men and women competent to bear responsibility in all walks of life.

A committed and supportive management, dedicated teachers, caring and co-operative parents



Education is not the learning of facts, but the training of minds to think.

blend harmoniously to create a school that is child-centric.

There is something for everyone here. The variety and creativity of the articles in the magazine represent the talents of the Vidya Niketan faculty and students. I congratulate the entire team for their hard work and dedication in making this magazine. The reflection of the students' and teachers' creativity is the highlight of the magazine. I am sure that the positivity, hard work, sustained effort by our children will surely stir the minds of readers and will make them think about the vital issue of Climate Change.

– Anandita Das

"The Earth is a fine place and worth fighting for." – Ernest Hemingway

# A LESSON FROM THE **HEADMISTRESS**

## **The Tamarind Tree**

How quickly things change. How quickly one is forgotten...

y story is not very different from many others. Like many other youth, I was strong, supple, alert and smart. Eager to reach for the sky with my bright leafy branches. Yes, you heard that right. I am a tree. A tamarind tree. And like my other tree-friends, I started life as a baby, then grew into a teenager, and then into a fine young man with a strong brown body and broad shoulders which always wore a bright green top.

I was a very protective and loving tamarind tree. To the old village elders who sat under my branches, I provided shade and a gentle breeze. The young boys and girls of the village would play under my loving branches. The boys would climb up my supple branches in search of fruit, of which I bore many of different sizes. They would also tie ropes on the thickest of my arms and hang swings on which girls would swing with merry freedom.

Higher and higher they would swing, almost to touch the sky. When riding their swing, the girls could see the unending tree line of the forest, which loomed ahead of them like a thick green cloud.

After the boys and girls plucked the fruit from my branches, they would enjoy the ripe succulent tamarind, but would never throw away the seeds. They would dry them in the sun, and once dry they would play different games with them. I remember, one family in particular, a couple with two children, Mukul and Meeta who would spend hours playing in my shade and sometimes I would bend my branches and when the breeze was strong, whisper something, which I am not quite sure they were able to catch. One day, their father got a job in another city and they left. I missed them. I heard from children who came to play that the road to the city was beautiful. Lush green paddy fields lined the roads and little ponds with small fish swimming among the lotus that floated above the water.

The years passed by. My bright green top began to fade to a dull brown. My strong shoulders began to stoop, and as many of my leaves had fallen, the children no longer came to play.

Many changes since my beloved family had left. Spring and winter had turned much shorter, and summers longer and intense.

The road from the city changed too. It was no longer a rough mud path. It was now built with concrete on which motor vehicles thundered up and down. The once beautiful paddy fields and the little ponds were all gone. Industries belching out dirty yellow smoke had replaced those placid ponds. But then one day I heard the good news. My 'lost' family were coming back to the village. I saw a grown up Mukul and Meeta come back to their tamarind tree. But instead they came and sat down on a bench nearby, hardly even noticing my presence.

So dear children, nature doesn't really need us. We need nature, we need a natural functioning world, if we are to survive. We are the species most at risk, and with the most to lose, if we can't make a change. The tree in this story represents the beauty of this living world and how critical it is to keep a place in this beautiful world for ourselves – by taking care of it.

– Shobha Rao



## WHAT IS CLIMATE CHANCE?

### A REALLY SIMPLE GUIDE

Climate is the average weather in a place over many years. Climate change is a shift in those average conditions. The Earth is now in a period of rapid climate change, with global temperatures rising.



### WHAT WILL CLIMATE CHANGE MEAN?

#### People

Climate change will transform the way we live, causing water shortages and making it harder to produce food. Some regions could become dangerously hot and others uninhabitable because of rising sea levels.

Extreme weather events – like heatwaves, downpours and storms – will become more frequent and intense, threatening lives and livelihoods. People in poorer countries, which are least able to adapt, will suffer most.

#### Environment

Polar ice and glaciers are melting fast – with lowlying coastal areas threatened with flooding by rising seas. As permafrost – frozen ground – melts in places like Siberia, methane – another greenhouse gas – will be released into the atmosphere, worsening climate change. The weather conditions needed for wildfires are becoming more likely.

#### Nature

As their habitats change, some species will be able to move to new locations. But climate change is happening so rapidly many are likely to become extinct.

Bears are at risk of disappearing as the ice, they rely on melts away. Atlantic salmon could be devastated as the river waters in which they breed warm up. Tropical coral reefs may disappear as oceans absorb CO<sub>2</sub> and become more acidic.

#### WHAT ARE THE CAUSES?

There have always been natural variations in the climate. But global temperatures are rising now because of human activities. The world is about 1.2°C warmer than before people started using oil, gas and coal to power factories and transport, and to heat homes.

### WHAT WILL HAPPEN IN THE FUTURE?

Scientists have set a temperature increase of 1.5C as the "safe" limit for global warming. If temperatures go higher, damaging changes to the natural environment will probably transform humans' way of life. Many scientists believe this will happen and predict rises of 3°C or more by the end of the century.

## The effects vary around the world:

- The UK will be vulnerable to flooding caused by extreme rainfall
- Low-lying island nations in areas such as the Pacific region could disappear under rising seas
- Many African nations are likely to suffer drought and food shortages
- In North America, worsening drought conditions are likely to hit the western US, while other areas will probably see increased rainfall and more intense storms
- Australia is likely to suffer extremes of heat and drought

The greenhouse gases released by burning these fossil fuels trap the Sun's energy. The amount of one greenhouse gas in the atmosphere –  $CO_2$  – has risen about 50% since the 19th Century and 12% in the past two decades. Another source of greenhouse gases is deforestation. When trees are burned or chopped down, the carbon they normally store is released.

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### WHAT ARE GOVERNMENTS DOING?

Countries are being asked to adopt targets that would reduce their greenhouse-gas emissions to "net zero" by the middle of this century.

This means any emissions would be balanced out by absorbing an equivalent amount – through planting trees, for example.

The hope is this will prevent the most dangerous effects of climate change, by arresting the rapid rise in temperature.





#### WHAT IS THE GREENHOUSE EFFECT?

Certain gases in the Earth's atmosphere (water vapour, CO<sub>2</sub>, methane and others) allow sunlight to pass through, but then stop the heat from escaping back out into space – much like glass in a greenhouse. Without this, our planet would be uninhabitable to most forms of life. However, by changing the balance of gases in the atmosphere, humans have increased the greenhouse effect, causing the rising temperatures we now see.

#### WHAT CAN WE EXPECT TO HAPPEN NEXT?

That depends on what we do now. Because of all the greenhouse gases already in the atmosphere, if the human race died out tomorrow, we'd still expect the planet to continue heating up. If we carry on emitting at the rate we are today, it will heat up much more rapidly. Rather than just warming, it makes more sense to think of it as the climate becoming more unstable, with extra energy in the system. Extreme weather events will become more common, ecosystems will be put under stress and so will human agriculture and water supplies. Some parts of the world are particularly vulnerable, such as sub-Saharan Africa, but no area will be immune.

#### WHAT WOULD A WORLD 4°C HOTTER LOOK LIKE?

- Increases of 6°C or more in average monthly summer temperatures would be expected in large regions of the world, including the Mediterranean, North Africa, the Middle East, and parts of the United States, with heatwaves raising temperatures further.
- Sea levels would rise by 0.5 to 1 metre at least by 2100, and by several metres more in the coming centuries. Major cities would be threatened by flooding.
- As oceans absorb excess CO<sub>2</sub> they would become around 2½ times as acid as they are now, and marine ecosystems would be devastated by this on top of the impacts of warming, overfishing and habitat destruction. Most coral reefs would be long destroyed (from around 1.4°C temp rise)
- As ecosystems undergo rapid transition, mass extinctions are likely.
- Agriculture would be under extreme stress in much of the world, especially the poorest regions.

## Let's Save Ourselves

"We are humans who want the same thing every other human wants—a safe place to live on this planet we call home. So while our work must continue to be unbiased and objective, increasingly we are raising our voices, adding to the clear message that climate change is real and humans are responsible, the impact is serious and we must act now."

here is an overwhelming scientific consensus that global warming is mostly man-made: 97% of climate scientists have come to this conclusion.

One of the biggest drivers by far is our burning of fossil fuels – coal, gas and oil – which

have increased the concentration of greenhouse gases – such as carbon dioxide – in our atmosphere. This, coupled with other activities like clearing land for agriculture, is causing the average temperature of our planet to increase. In fact, scientists are as certain of the link between greenhouse gases and global warming as they are of the link between smoking and lung cancer.

India is both a major greenhouse gas emitter and one of the most vulnerable countries in the world to projected climate change. The country is always experiencing changes in climate and the impacts of climate change, including water stress, heat waves and droughts, severe storms and flooding, and associated negative consequences

on the health and livelihood. With a 1.2 billion but growing population and dependence on agriculture, India probably will be severely impacted by continuing climate change.

The large segment of poor people (including small holder farmers and landless agriculture

workers) may be the hardest hit, requiring government relief programmes on a massive scale. Finally, migration, especially from India, may strain resources and India relations.

The most important impact and concerns of climate change are:-

**Agriculture:** The input or output of the agricultural will be negatively affected even as demand for food and other agricultural products rise because of an increasing population and expectations for

an improved standard of living. Millions of subsistence and smallholder farmers will experience hardship and hunger through being less able to predict climate conditions. To a certain extent, trade may compensate for these deficits.



**Migration:** India receives immigrants from a number of countries. Under climate conditions, it may be flooded with many more, particularly from Bangladesh. Such migration may exacerbate tension between the two countries as well as putting a strain on Central and State governments.

There are many more impacts of climate changes

like water, energy and so on. Main thing I want to say that we humans are mostly responsible for these climate changes. So I urge you to help our planet to a safe place for us to live, if things continue like this then the end will be soon. Climate change is really happening and we humans can only save ourselves.

Aditi Kumar – IX B

## **Time is Ticking**

e all are aware about the harmful changes in the climates of many countries all over the world. Like these countries, India is also going through a very hard time because of the issue of changing climate. Climate is affecting this diverse country in the form of floods, droughts, cyclones and

heat waves. It is affecting the economy and development of the country to a large extent. According to reports, these rapid changes in Indian climate can pose a very serious threat to its natural ecosystems, agriculture and water resources, in short, can affect the whole biodiversity of the country very much.

Indian forests, agriculture and water resources are under big threat. Changing climate is deteriorating the Indian land very rapidly. India is an agrarian country with more than 50 per cent of its population engaged in primary sector. But because of the changing climate, the temperature is increasing in an unstoppable sense and is producing a lot of heat which is reducing the extent of rainfall. This is disturbing the crop-cycles which are leading to an increase in food prices all over the nation.

Farmers of north-western states of India like Punjab and Haryana are facing this problem. Extensive heat is leading to forest fires also affecting the natural vegetation of the country. Variability in rainfall patterns is leading to shortages in water resources in many areas affecting thousands of water species like fishes along with the human lives.

Scarcity of water in these water-deprived areas is leading to droughts. In the south-western states of India like Mumbai, Goa, Kerala, etc sea level is rising to a great extent leading to floods and cyclones bringing thousands of lives at the edge of great loss.

People are facing many serious health problems also like malnutrition, skin problems, infections and all this is leading to the rise in mortality rate of the country. People are losing their livelihoods, which is unfortunately leading to their migration from their places to a completely different and new region. Their lifestyles are changing unconsciously.

> Impacts of climate change in India are not uniform. These changes have shaken the country. If the negative impacts of climate continue like this, then the misery of our country that we all are afraid of will not take much long to arrive. We have to take some very

urgent preventive measures to stop this calamity of climate as soon as possible.

The measures which can bring about a change are as follows- Investing in research and development of drought-resistant crops, efficient use of ground water, crop diversification, regional cooperation on water issues, building coastal embankments. If we don't bring about a change today then only a calamity will bring about a frightening change tomorrow.

Kashish Ambawata – XI A

## **Running Out of Time**

he earth is a beautiful place for human beings, but the temperature is getting higher day by day. This is known as global warming. That means the entire world is getting warmer. It's not a good thing for the future. According to expert opinion the world after a couple of hundred years will be unable to live in if the level of carbon dioxide keeps increasing. Could you imagine, how threatening this is? Our future generation is in deep danger. We have to give them a better and safer future. There are still same solutions that could bring some changes. Climate change is one of the biggest reasons behind it. As you can see the seasons are really changing every year. They are changing because of climate change. The entire world will soon face this. Few countries will sink under the sea because of that. However, we can still prevent this if we become aware and do our bit even it it means just planting more and more trees.

Shrishti Mishra – VIII B



CLIMATE CHANGE \ SPECIAL ISSUE \ POETRY

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### Rainforest

Fiery down Across the blue sky Black smoking halo For each species cry

A lot of us helping Too many stand still Will all die together Each rainforest we kill

Think what we're doing Look at the green Burned out and cut down The blackest you've seen

Reaction important It's time to act now Our future is with us Rainforest is how

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Manya Gupta – VI B

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### Nothing I can do

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As I slowly orbit, I look upon my earth I listen to the humans Hear the problems they unearth.

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They call it 'global warming' I don't know what it means I only see my earth is changing Bursting at the seams.

I see the ice caps melting Watch the sea level rise I watch as a species Slowly dies.

I see the climate changing Not working as it should I know this won't be easy I know this isn't good.

I know the cause of this, I know the solution too, But the moon has no voice, There's nothing I can do.

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Aditi Yadav – IX B

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### Defender of my Planet

Kids for saving Earth The Earth is my home.

I promise to keep it Healthy and beautiful.

I will love the land, the air, The water, and all living creatures.

> I will be the defender Of my planet.

United with friends. I will save the Earth.

Love our Earth, Love Life. Save Earth, Save Life.

Rudra Goswami – III A





Enough!

Here we are Hot getting hotter Cold getting colder Land getting barren Seas rising higher

We are all wondering How could we do this? And keep doing this To ourselves.

Diya Chandel – VII A

### Polar Bears are Dying!

The Polar bears have disappeared They're drowning in the sea The ice sheets are melting silently.

The Countrymen deny That anything is wrong As polar icecaps are melting and the sea-level is rising He'll sing a different song.

The little trace of polar bear Shows, Where they are hiding No one knows...... The environmental activists are trying Their best but have not passed the test, As human society did not care So we have lost many polar bears

> Nothing will happen Unless we all complain. Write letters to PM To save those that remain!

> > Astha Sharma – IX A

### Our Planet's Pain

We're using too much electricity What is our planet gonna turn out to be?

Cows are producing too much Methane Our Earth is in great pain

We're chopping down too many trees, Our Earth is yelling "Stop! Please, please!

We're going everywhere with planes If we don't stop, we might need to move to mars.

We need to stop making plastic, The waste is growing and our oceans are not

In 50 years, there will be more waste than fish in our seas

And to worsen the disaster, we are killing with chemicals

Prisha Kalra – III A

## **Fighting for Mother**

ello! My name is Aanchal Negi and I wanted to call your attention on our real heroes the "climate warriors". Today, earth is the only home we have. Humans, animals and plants all of us are bound to inhabit on this planet for as long as it will have us. Human activities have damaged earth so deeply that the planet might become uninviting by the turn of next century. From drought to flooding, climate change already hurts millions of people across the country. Increased heat, drought and insect outbreaks, these increasingly common climate change phenomena destroy the lives of people who are defenseless in its wake.

"Without action now, climate change will exacerbate the inequalities that children already face, and future generations will suffer" says unicef.

It affects children the most as they are still growing and are at great risk of injury, disability and death caused by the effects of climate change. The greatest killers of children – malnutrition, diarrhoea and malaria will get worse. A climate activist is a person who is aware of the impact human actions have had—and still have—on the planet and its inhabitants, and works for the implementation of





sustainable, environmentally sound methods towards the development of mankind.

India is not without its climate change activists – its "environmental warriors," so to speak. Joydeep Mukherjee, an award-winning Kolkata-based environmental photographer, and his assistant Jhinku Banerjee, capture the human face of India's climate crisis. Joydeep's photographs reveal climate change consequences that go beyond the realm of statistics and plain news reports. His photographs touch the hearts of those who care to look.

For those of us born in luckier regions, or with the financial power to hold off our immediate experience of climate change with air conditioning, access to purified tap water and store-bought or imported foods, it's easy to get lost in the small concerns of our daily lives. But climate change, though harder for us to see here and now, is having a direct, painful and life-terminating consequences for our world's – and certainly India's – largest demographic: the poor. As responsible citizens we should try to reduce our energy use, things will change if we all would try not only our climate warriors.

Anchal Negi – IX A

### DELHI

## **Toxic** Air

"No challenge poses a greater threat to future generations than climate change."

his is a famous quote by the 44th US President Barack Obama. Global warming or climate change has today become a major threat to mankind. Temperatures are on the rise and there are various reasons for it such as greenhouse gases emanating from carbon dioxide (CO<sub>2</sub>) emissions, burning of fossil fuels and deforestation.

New Delhi is among the world's urban masses with the most toxic air. It has been predicted that Delhi will witness both direct and indirect impact of climate

change. The direct impact will be severe heat waves and high-intensity rainfall which are uncharacteristic of our seasons. On the other hand, the indirect impact will be increased cases of dengue, malaria in Delhi and its neighboring states. Even the holy river Yamuna whose waters were once described as clear blue has become one



In Delhi, poor quality air irreversibly damages the lungs of 2.2 million or 50 percent of all children. In November 2017, in an event known as the Great Smog of Delhi, the air pollution spiked far beyond acceptable levels. Levels of PM2.5 and PM 10 particulate matter had hit 999 micrograms per cubic meter, while the safe limits for those pollutants are 60 and 100 respectively. Due to climate change, there has been erratic weather changes in Delhi too, the most recent being the unpredictable rains in the month of September and October.

But for each and every problem, there is a solution. Experts have said that reduced diesel emissions & more water bodies will help lessen air pollution, the biggest environmental challenge for the capital. It is even advised that to limit the urban heat island



On the personal front also, even a simple decision like using public transport can help in the fight against climate change. Reducing plastic waste, planting a tree, consuming less, minimizing waste – these are simple yet effective methods to fight against climate change. However, all this is only possible only when we make an effort. It all begins with one single step.

Divyanshi Pradhan – VI A

Under Pressure

e are facing a unique set of challenges starting from the COVID-19 pandemic to the existential threat of climate change and in such a situation it is important for all of us to work together.

Extreme weather conditions uncharacteristic to our seasons have become more familiar in recent years. Scientific studies indicate that there has been an increase of 1.5 degrees Celsius in global temperature in the past 20 years. Delhi-NCR has been witnessing erratic weather with harsh summers and winters and moody monsoons which not only affect people's health but also various seasonal

crops. Delhi has also experienced episodes of uncontrollable rainfall which cannot be managed by the existing system and result in waterlogging in several areas. These climatic changes also affect the health system of a place by causing a rapid increase in cases of prevailing diseases such as dengue, malaria, etc.

In Delhi, the urban planning for future and the environment strategy needs to consider tides of migration into the region as a factor. People from different regions of the country and the world tend to migrate to Delhi. If the situation continues, floods and droughts will continue to create havoc in the country and people will migrate to Delhi on a faster rate which would not only affect the population but impact all our resources.

All this can be controlled to some extent by reducing use of vehicles, afforestation, water conservation, reducing use of electric appliances which will in turn reduce the emissions of various chemicals in the atmosphere and help overcome the problem of climate change.

> In this situation it is necessary for us to be aware and ready to tackle the issue by doing our part.

> > We are all humans who want the same – a safe place to live on this planet we call home. So, while our work must continue to be unbiased and objective, increasingly, we must raise our voices, adding to the clear message that climate change is real and humans are responsible for it. We must act now.

> > > Aryan Singh – VIII B

## WHAT IS GLOBAL WARNING?

The Planet is heating up - and fast

laciers are melting, sea levels are rising, cloud forests are dying, and wildlife is scrambling to keep pace. It has become clear that humans have caused most of the past century's warming by releasing heattrapping gases as we power our modern lives. Called greenhouse gases, their levels are higher now than at any time in the last 800,000 years.

We often call the result global warming, but it is causing a set of changes to the Earth's climate, or long-term weather patterns, that varies from place to place. While many people think of global warming and climate change as synonyms, scientists use "climate change" when describing the complex shifts now affecting our planet's weather and climate systemsin part because some areas actually get cooler in the short term. Climate change encompasses not only rising average temperatures but also extreme weather events, shifting wildlife populations and habitats, rising seas, and a range of other impacts. All of those changes are emerging as humans continue to add heat-trapping greenhouse gases to the atmosphere, changing the rhythms of climate that all living things have come to rely on.

What will we do—what can we do—to slow this human-caused warming? How will we cope with the changes we've already set into motion? While we struggle to figure it all out, the fate of the Earth as we know it—coasts, forests, farms, and snow-capped mountains—hangs in the balance.

#### Understanding the greenhouse effect

The "greenhouse effect" is the warming that happens when certain gases in Earth's atmosphere trap heat. These gases let in light but keep heat from escaping, like the glass walls of a greenhouse, hence the name.

Sunlight shines onto the Earth's surface, where the energy is absorbed and then radiate back into the atmosphere as heat. In the atmosphere, greenhouse gas molecules trap some of the heat, and the rest escapes into space. The more greenhouse gases concentrate in the atmosphere, the more heat gets locked up in the molecules.

Scientists have known about the greenhouse effect since 1824, when Joseph Fourier calculated that the Earth would be much colder if it had no atmosphere. This natural greenhouse effect is what keeps the Earth's climate livable. Without it, the Earth's surface would be an average of about 60 degrees Fahrenheit (33 degrees Celsius) cooler. In 1895, the Swedish chemist Svante Arrhenius discovered that humans could enhance the greenhouse effect by making carbon dioxide.

#### Aren't temperature changes natural?

Human activity isn't the only factor that affects Earth's climate. Volcanic eruptions and variations in solar radiation from sunspots, solar wind, and the Earth's position relative to the sun also play a role. So do large-scale weather patterns such as El Niño.



But climate models that scientists use to monitor Earth's temperatures take those factors into account. Changes in solar radiation levels as well as minute particles suspended in the atmosphere from volcanic eruptions, for example, have contributed only about two percent to the recent warming effect. The balance comes from greenhouse gases and other humancaused factors, such as land use change.

The short timescale of this recent warming is singular as well. Volcanic eruptions, for example, emit particles that temporarily cool the Earth's surface. But their effect lasts just a few years. Events like El Niño also work on fairly short and predictable cycles. On the other hand, the types of global temperature fluctuations that have contributed to ice ages occur on a cycle of hundreds of thousands of years.

For thousands of years now, emissions of greenhouse gases to the atmosphere have been balanced out by greenhouse gases that are naturally absorbed. As a result, greenhouse gas concentrations and temperatures have been fairly stable, which has allowed human civilization to flourish within a consistent climate.

Now, humans have increased the amount of carbon dioxide in the atmosphere by more than a third since the Industrial Revolution. Changes that have historically taken thousands of years are now happening over the course of decades.

#### Why does this matter?

The rapid rise in greenhouse gases is a problem because it's changing the climate faster than some living things can adapt to. Also, a new and more unpredictable climate poses unique challenges to all life.

Historically, Earth's climate has regularly shifted between temperatures like those we see today and temperatures cold enough to cover much of North America and Europe with ice. The difference between average global temperatures today and during those ice ages is only about 9 degrees Fahrenheit (5 degrees Celsius), and the swings have tended to happen slowly, over hundreds of thousands of years.

But with concentrations of greenhouse gases rising, Earth's remaining ice sheets such as Greenland and Antarctica are starting to melt too. That extra water could raise sea levels significantly, and quickly. By 2050, sea levels are predicted to rise between one and 2.3 feet as glaciers melt.

As the mercury rises, the climate can change in unexpected ways. In addition to sea levels rising, weather can become more extreme. This means more intense major storms, more rain followed by longer and drier droughts—a challenge for growing crops—changes in the ranges in which plants and animals can live, and loss of water supplies that have historically come from glaciers.

## **Pull the Plug**



umans are increasingly influencing the climate and the earth's temperature by burning fossil fuels, cutting down forests and farming livestock. This adds enormous amounts of greenhouse gases to those naturally occurring in the atmosphere, increasing the greenhouse effect and global warming.

Impact of climate change in India: The number of heat wave days has increased – not just day temperatures, but night temperatures increased too. The year 2018 was the country's sixth hottest year on record, and 11 of its 15 warmest years have occurred since 2004 How we can prevent climate change:

- Do not cut down more trees as it will only worsen the level of carbon dioxide in the atmosphere
- 2) Plant more trees.
- 3) Participate in the democratic Process
- 4) Rethink Transportation
- 5) Eliminate Food Waste
- 6) Pull the plug

**Bhawna Kumari** Mother of Nistha Priya – Class VII A

## Don't Guillotine Mother

limate change remains one of the mostoverwhelming challenges that humanity currently faces. Although global temperature changes, for much of the planet's history, have been caused by natural occurrences, the past few centuries have seen a paradigm shift. Human beings, especially after the Industrial Revolution, have contributed towards a rise in global temperatures. In the name of progress, humanity has, without batting an eye, guillotined Mother Nature.

The emission of deleterious gases into the planet's atmosphere has lead to a drastic rise in sea levels, produced more dangerous heat waves, among other effects. Numerous scientific studies have arrived at the conclusion that human activities are going to exacerbate the situation in as much as humans, in general, are not keeping the gravity of the situation in mind.

Discerning the effects of climate change and taking all steps to stop climate change is the need of the hour. One must understand that climate change is a clear and present danger to human society. This is a predicament that cannot be ignored if humanity wishes to survive the twenty-first century.

> Sreeja Raghunathan Mother of Alekhya Pillai – Class VIII B



## A Calamity

limate change is a topic of huge concern these days. The growing problem of changing climate due to global warming is affecting millions of lives all over the world and giving us goose bumps. It's showing its dangers of future in different ways. Sometimes by increasing the level of heat, sometimes by spraying limitless water and sometimes by increasing the cold.

People are facing the same problem all over the world but very little people are aware about the reason of this changing climate. Because of this they are still continuing the use of harmful chemical based things like polythene bags, etc. These people are unaware of these important issues because they are least bothered to learn and understand anything about this clear danger. Sea levels are rising to a great extent with each passing day because of the endless rains and melting ice in cold regions, resulting in devastating floods. Animals are dying because of excessive heat and those in icy regions losing their homes. The balance of the ecosystem is getting disrupted because of global warming.

The only way in which we can overcome this problem is to organize camps to spread awareness, planting more trees, stopping the use of polythene and proper policies by the government for factories producing harmful emissions. People and animals should be taught how to adapt to changing environments. If we don't stop this now this may lead to a threatening and disastrous future very soon.

> Jitender Ambawata Father of Kashish Ambawata – XI A

## Let's Heal Our Mother

lobal warming is a term almost everyone is familiar with. But its meaning is still not clear to most of us. These are various activities taking place which have been increasing the temperature gradually. Global warming is melting our ice glaciers rapidly. This is extremely harmful to the earth as well as humans.

It is quite challenging to control global warming, however it is not unmanageable. The first step to solve any problems is identifying the cause of the problem. Therefore, we need to first understand the causes of global warming that will help us proceed further in solving it. These causes are natural as well as manmade. The natural causes include the release of green house gases which are not able to escape from earth, causing the temperature to increase. One of the examples of man-made contribution to global warming is deforestation.

In short, all of us must realize the fact that our earth is not well. It needs treatment and we can help it heal. The present generation must take up the responsibility of stopping global warming in order to prevent the suffering of future generations. Therefore, every little step, no matter how small carries a lot of weight and is quite significant in stopping global warming.

> Seema Yadav Mother of Yukta Yadav – XI A





## **Complex Issue**

limate change is one of the most complex issues facing us today. It involves many dimensions like – society, science, economics, politics, moral questions. It is a global problem, that will be around for decades and centuries to come. Even if we stop emitting all green house gases today, global warming and climate change will continue to effect future generations.

We need to cut man made green house gas emissions drastically, lessen the use of fossil fuels and move onto renewable energy. We need to use less energy and be more efficient in the energy that we use. We also need to tackle deforestation. There are effective ways each one of us can take to make a difference:

- 1. Speak up Talk to family, friends and voice concerns via social media or directly to your elected officials.
- 2. Power home with renewable energy; wind and Solar energy.
- 3. Reduce water waste saving water reduces carbon pollution too.
- 4. Buy efficient bulbs LED light bulbs use up to 80% less energy.
- 5. Drive a fuel-efficient vehicle.
- 6. Protecting forests and oceans by polluting less.

So, to give a better future to our upcoming generations, we will need to adapt and raise awareness globally.

Jupi Borpatra Mother of Navodya Raghuwanshi – VII A

## Impacts Health

limate change has a deep impact on human health and the animal kingdom. Climate change is affecting children more than adults. Poor air quality can cause breathing problems especially in children with asthma. It has led to an increase in diseases such as lime disease, diarrhoea etc, which are often more dangerous to children than adults.

To save children from the effects of climate change, we should try and decrease our reliance on fossil fuels such as coal, oil and gas and increase the use of renewable energy resources. Plant more trees, reduce the use of AC and take all precaution for the safety of our children and adults also.

> Pooja Sharma Mother of Astha Sharma – IX A



## **Slow Death**

limate is sometimes mistaken for weather. But climate is different from weather because it is measured over a long period of time, whereas weather can change from day to day, or from year to year. The climate of an area includes seasonal temperature and rainfall averages, and wind patterns. Different places have different climates. A desert, for example, is referred to as arid because little water falls, as rain or snow, during the year. Other types of climates include tropical climates, which are hot and humid, and temperate climates, which have warm summers and cooler winters.

Climate change is the long-term alteration of temperature and typical weather patterns in a place. Climate change could refer to a particular location or the planet as a whole. Climate change may cause weather patterns to be less predictable. These unexpected weather patterns can make it difficult to maintain and grow crops in regions that rely on farming because expected temperature and rainfall levels can no longer be relied on. Climate change has also been connected with other damaging weather events such as frequent and more intense

hurricanes, floods, downpours, and winter storms. In polar regions, the warming global temperatures associated with climate change have meant ice sheets and glaciers are melting at an accelerated rate from season to season. This contributes to sea levels rising in different regions of the planet. Together with expanding ocean waters due to rising temperatures, the resulting rise in sea level has begun to damage coastlines as a result of increased flooding and erosion.

The cause of current climate change is largely activity, like burning fossil fuels, like human natural gas, oil, and coal. Burning these materials releases what are called greenhouse gases into Earth's atmosphere. There, these gases trap heat from the sun's rays inside the atmosphere causing Earth's average temperature to rise. This rise in the planet's temperature is called global warming. The warming of the planet impacts local and regional climates. Throughout Earth's history, climate has continually changed. When occurring naturally, this is a slow process that has taken place over hundreds and thousands of years. The human influenced climate change that is happening now is occurring at a much faster rate.

Nakul Juneja – XI B

### **CLIMATE WARRIORS**

Climate change is not science fiction, this is a battle in the real world, it is impacting us right now. Here are some brave people standing up to fight the good fight.

### Leonardo DiCaprio

eonardo DiCaprio's full name is Leonardo Wilhelm DiCaprio. He is a 46-year-old American actor, TV personality, film producer and an environmentalist. He was born on 11 November 1974 and he hails from Los Angeles, California. He was the lead hero of the film Titanic and he also won Oscar award for the 2016's film (The Revenant).

Leonardo DiCaprio has been an outspoken advocate for environmental issues throughout of his career. In 1998 at the age of 24, he established his own Foundation with the motto of protecting the earth's last wild places and implementing solutions to build a more tuneful relationship between humanity and nature world.

In 2014, Leonardo DiCaprio was honoured with the esteemed Clinton Global Citizen award for his charitable work. The Secretary-General of the UN designated Leonardo as a messenger of Peace with a special focus on Climate Change.

Rudransh Mishra – XI A



## Licypriya Kangujam

icypriya Kangujam (Born 2 October 2011) is a child environmental activist from India. She is one of the youngest climate activists globally and has addressed world leaders at the United Nations climate change conference 2019 (COP 25) in Madrid, Spain asking them to take immediate action on climate issues. Licypriya has been campaigning for climate action in India since 2018 to pass new laws to curb India's high pollution levels and to make climate change literacy mandatory in schools.

We should acquire knowledge from this young girl on how to protect our environment. My perspective to protect our environment will be to conserve energy, save water and use eco-friendly products. We should stop dumping our waste in rivers. If we pollute the water, the aquatic animals living in water will die. We all should have an aim to protect the natural environment from the rampaging hands of individuals, organizations, and governments. It is the need of the hour because the earth is deteriorating every day and the main being us human beings.

Divya Pun – IX B







## **Greta Thunberg**



reta Thunberg started protesting outside the Swedish Parliament in 2018, when she was 15. She held a sign saying "School Strike for Climate", to pressure the government to meet carbon emissions targets. Her small campaign had a global effect, inspiring thousands of young people across the world to organise their own strikes.

By December 2018, more than 20,000 students – from the UK to Japan – had joined her by skipping school to protest. A year later, she received the first of three Nobel Peace Prize nominations for climate activism.

In 2019, Thunberg sailed across the Atlantic on a yacht to attend a UN climate conference in New York. Delivering what is probably her most famous speech, she angrily told world leaders they were not doing enough. "You all come to us young people for hope. How dare you? You have stolen my dreams and my childhood with your empty words," she said.

Thunberg was named Time Magazine's Person

of the Year in December 2019. Her growing fame caught the attention of world leaders, not all of them supportive. Donald Trump, who was US president at the time, tweeted that she should "work on her anger management problem" and go to "a good old fashioned movie with a friend".

She wants people in power across the world to act with more urgency in tackling harmful emissions. For example, she called EU plans to reduce harmful emissions by 2050 a "surrender".

Thunberg has said she has stopped buying clothes and does not fly. But she said she wasn't "telling anyone else what to do".

In 2019 she told chat-show host Ellen she was vegan. In June 2020, Thunberg told the BBC that she had been catching up on her school studies during the pandemic. She has Asperger syndrome, a developmental disorder, and has described it as a gift. She said being different can be a "superpower".

Celine Prasad – XII A

## Dia Mirza

ia Mirza is a well-known celebrity face who played a lot of fictional roles and got lot of admiration too for her work. But these days the actress is playing a role which is so real in itself. A role of an environmentalist. Recently she was appointed as UN Environment's Goodwill Ambassador for India. The step that she has taken towards the present environment shows her immense love and passion for environment and its preservance.

The actress has contributed to the preservation of wildlife and the environment in many ways by spreading a positive message everywhere, especially in India and inspiring the youth to come forward and join the Aravali forest movement. Save Aarey movement and many more citizen's movements were also organized by the 39-year-old actress. Her main aim for these campaigns was to make people aware about the issues related to climate change, wildlife protection and clean air.

During her speech at the UN she mentioned her role as the UN Environment's Goodwill Ambassador is to help advocacy and awareness of environment related issues. According to her, the youth can play a very significant part in resolving these environmental issues. There are many ways in which they can bring about a change – they can change their lifestyles to some extent by refusing and recycling plastic (simple things like toothbrush and bottles). She uses a bamboo toothbrush and even started using local biodegradable sanitary napkins.

According to Dia, society is becoming more and more aware and that's what has encouraged her to take a step forward so as to enable that change.

Kashish Ambawata – XI A





### आओ प्रकृति से प्रेम करें

आओ आओ प्रकृति से प्रेम करें, भूमि मेरी माता है, और पृथ्वी का मैं पुत्र हूँ मैदान, झिले, नदियाँ, पहाड़, समुद्र, सब मेरे भाई बहन हैं इनकी रक्षा ही मेरा पहला धर्म है। अब होगी अति तो हम ना सहन करेंगे। खनन-हनन व पॉलिथीन को अब दूर करेंगे, प्रकृति का अब हम ख्याल रखेंगे। प्रकृति ही मेरा जीवन है आओ, आओ प्रकृति से प्रेम करें।

दर्श कुमार - VI A

### चलो, बचाएं पृथ्वी को

पृथ्वी पिघल रही है दिन और दिन पर हो क्यों रहा है ऐसा? हम जो पेड़ काट रहे हैं, गाड़ियों से प्रदूषण फैल रहा है, वह सब फैल रहा है हवा में।

यह मत भूलो कि पेड़ देते हमें प्राणवायु, अगर इन्हें ही काटोगे तो क्या जी पाओगे? पृथ्वी बोल रही है "रुक जाओ" पर क्या हम रुक रहे हैं ?

मत उपयोग करो प्लास्टिक का, करोलीरीसाइकल, पुनः उपयोग, है, हमारा भविष्य हमारे ही हाथों में, तो क्यों ना इसे बजाया जाए, चलो, बचाएं पृथ्वी को मिलकर आज से ही।

पृथ्वी पिघल रही है दिन और दिन, तो चलिए बचाएं पृथ्वी को, स्वर्ग बनाए पृथ्वी को।

अंविका - VII A



### मानव पर पर्यावरण परिवर्तन का प्रभाव

पर्यावरण परिवर्तन का प्रभाव केवल मनुष्य पर ही नहीं पशु-पक्षी, पेड़-पौधे पर्यावरण एवं भूमि पर भी दिखाई देने लगा है। इस परिवर्तन का सबसे ज्यादा असर हम इंसानों पर ही दिखाई दे रहा है। पर्यावरण में परिवर्तन के कारण मनुष्य के जीवन में एक समय ऐसा भी आ सकता है, जब मनुष्य के पास पीने के लिए पानी नहीं होगा, खाने के लिए भोजन नहीं होगा और सांस लेने के लिए शुद्ध हवा भी नहीं होगी। पृथ्वी पर दिन प्रतिदिन गर्मी बढ़ती जा रही है जिसका प्रभाव हमें समय-समय पर देखने को मिलता है। मनुष्य ने अपने विकास के लिए वातावरण का ध्यान नहीं रखा। उसने वातावरण के संतुलन को बिगाड़ दिया है। विकास के साथ-साथ पर्यावरण का संतुलन भी जरूरी है। अगर इसके लिए कुछ महत्वपूर्ण कदम नहीं उठाए

तो ऐसा समय भी आ सकता है कि मनुष्य ही नहीं सभी जीव-जंतुओं का इस पृथ्वी पर अंत हो जाएगा।

नवोदया रघुवंशी - VII A

पर्यावरण परिवर्तन एक गंभीर समस्या है। समय रहते ना रोका गया तो लाखों लोग भुखमरी, जल संकट और बाढ जैसी अनेकों समस्याओं का सामना करना होगा। एक समय ऐसा था जब इस पृथ्वी पर इंसान तो थे लेकिन वह एक दम सीमित संख्या और स्थान पर निवास करते थे। जिसके कारण पृथ्वी का संतुलन बना हुआ था परंतु मानव जाति ने अपने लाभ के लिए पर्यावरण को हानि पहुंचाना शुरू किया। इसकी वजह से जगह-जगह पर बाढ़, भूस्खलन, सूखा, असमय वर्षा एवं अनेकों पर्यावरण परिवर्तन का प्रभाव देखने को मिलता है। इसकी वजह से जगह-जगह पर बाढ़ आ जाती है, जंगलों में आग लग जाती है, तूफान आ जाते हैं, ना जाने हर साल हमें कितने प्राकृतिक आपदाओं को सहना पड़ता है। इन सब का जिम्मेदार केवल मनुष्य ही है। मनुष्य ही मनुष्य के संकट का कारण बनता जा रहा है। यह कथन सत्य प्रतीत होता है।

### नष्ट होता जीव-जगत

विलुप्त हो जाएँगी, जिससे मनुष्य के अस्तित्व के लिए भी खतरा पैदा हो जाएगा। मनुष्य ने अपने रहने का तो इंतजाम कर लिया है लेकिन पशु-पक्षियों को दरबदर कर दिया। शहरों का रहन-सहन ऐसा है कि गौरैया जैसे पक्षी हमेशा के लिए लुप्त हो गए हैं। पशु और पक्षी हमारे सामने से हमेशा के लिए देखते ही देखते ओझल हो रहे हैं। पशु पक्षियों के प्राकृतिक निवास क्यों बचाने के लिए जंगलों नदियों के प्राकृतिक निवास को बचाने के लिए

जंगलों, नदियों और पहाड़ों का संरक्षण जरूरी है।

#### प्रयाग पंवर - IX B

इंसान ने पृथ्वी पर रहने वाले अन्य प्राणियों का जीना मुहाल कर दिया है वर्ल्डवाइल्डफंड और लंदन की जूलॉजिकल सोसायटी द्वारा जारी रिपोर्ट 'लिविंग प्लैनेट' के मुताबिक 1970 से 2014 के बीच शेरों की प्राणियों की 60 फीसदी आबादी खत्म हो चुकी है। 2010 तक इनकी आबादी 48 फीसदी बची थी। जाहिर है, इनका तेजी से खात्मा हो रहा है और इसके लिए हम जिम्मेदार हैं। ताजे पानी में रहने वाले जीवो के लिए खतरा तेजी से बढ़ रहा है। नदियों और झीलों के प्रदूषण की वजह से 83 फीसद जलीय जीव खत्म हो चुके हैं। इनकी कई और जातियाँ

### प्रकृति का दर्द

तापमान है बढ़ रहा, समाधान न कुछ मिल रहा। कैसे करें हम इस भयंकर गर्मी को बर्दाश्त, और कभी यह अपार बरसात।

जिस प्रकृति ने रहने को स्थान और पीने को जल दिया, उसी की जगह उससे छीनकर क्यों उससे छल किया। खुद ने उसका जीना दुश्वार किया, और जब उसने अपने प्रकोप दिखाया तो कहते हैं कि प्रकृति ने यह क्या किया।

सालों से प्रकृति सब सहती आ रही है, परंतु अब उससे यह पीड़ा सहन नहीं हो पा रही है। समुद्र सैलाब ला रहा है, क्योंकि वह तुमको प्रकृति के आँसू दिखाना चाह रहा है।

नई-नई बीमारियाँ पैदा हो रही है, नई-नई आपदाएं आ रही हैं। सालों से प्रकृति केवल नमूना दिखा रही है, समय पर संभल जाओ वरना विपत्ति निकट आ रही है।



अपनी दुनिया आबाद कर रहे हो, परंतु जानवरों को क्यों बर्बाद कर रहे हो। पहले खुद उनके घरों को उजाड़ते हो, और जब वे तुम्हारे घरों में आते हैं तो क्यों मुँह बिगड़ते हो।

नदियाँ बहना चाहती है, अपने शीतलता और निर्मलता से सबको मुग्ध करना चाहती हैं, मछलियाँ तड़पकर मरना नहीं चाहती, जलाशयों के सिवा कहीं और रहना नहीं चाहतीं।

अगर अपनी ही फैलाई गंदगी को साफ करते हो, तो क्यों प्रकृति पर यह एहसान करते हो। वह हजारों मूल्यवान चीजें देती हैं, परंतु उसे एहसान नहीं माँ का प्यार समझती है।

कभी शांति से बैठकर सोचना, अपने मन को एक बार जरूर कचोटना। अगर झरनों ने बहना बंद कर दिया तो? पेड़ों ने तुम्हें शुद्ध वायु देना बंद कर दिया तो?

अगर यह सब नहीं होने देना चाहते, तो क्यों करते हो यह सब शरारतें, प्रकृति केवल दुलार करना जानती हैं, क्योंकि यह सबको अपनी संतान मानती हैं।

कशिश अंबावता - XI A

### प्राकृतिक पर्यावरण परिवर्तन

#### 1. प्राकृतिक पर्यावरण परिवर्तन क्या होता है ?

प्राकृतिक पर्यावरण परिवर्तन का अर्थ है, ऐसा परिवर्तन जो अवांछनीय है और किसी क्षेत्र या पृथ्वी पर जीवन को हानि पहुँचा सकता है। जैसे- जलवायु में परिवर्तन, प्राकृतिक आपदाएं, सूखा पड़ना, वर्षा का अनियमित होना इत्यादि।

### प्राकृतिक पर्यावरण परिवर्तन के कुछ प्रभाव निम्नलिखित हैं-

पेड़ पौधों की कटाई, नदियों का प्रदूषित करना, भूस्खलन बाढ़ आ जाना, सूखा पड़ना, ग्लोबलवार्मिंग, ज्वालामुखी जैसे विस्फोटक का फटना इत्यादि प्राकृतिक पर्यावरण परिवर्तन के कुछ प्रमुख कारण है जो समय-समय पर हमें देखने को मिल जाते हैं।

### प्राकृतिक पर्यावरण परिवर्तन का मनुष्य एवं पशु-पक्षियों पर प्रभाव-

क. प्राकृतिक पर्यावरण परिवर्तन के कारण आज मानव एवं पशु पक्षियों में तरह-तरह की बीमारियां फैल रही है- जैसे हाल में ही हम करोना जैसी भयंकर एवं लाइलाज बीमारी से लड़ रहे हैं। जो कहीं ना कहीं प्रकृति से हुई छेड़खानी का ही दुष्परिणाम है। ख. आज हर ऋतुओं एवं मौसमों का समय से पूर्व आरंभ होना एवं वर्षा ऋतु का असमय होना। जो प्राकृतिक परिवर्तन की वजह से हीहो रहा है।

### प्राकृतिक पर्यावरण परिवर्तन के दुष्परिणामों को रोकने या सुधारने के उपाय-

- क. सर्वप्रथम मानव को अपनी गलत आदतों को सुधारने की कोशिश करनी चाहिए। जैसे- प्रदूषण ना फैलाएं, पेड़ पौधों को ना काटे, जानवरों के साथ गलत व्यवहार ना करें और प्रत्येक व्यक्ति ज्यादा से ज्यादा पेड़-पौधे लगाने की कोशिश करें। इसके परिणाम स्वरूप हम पर्यावरण में हो रहे परिवर्तन को रोक सकते हैं।
- ख. मशीनी उपकरणों का कम से कम प्रयोग करें जिससे प्रदूषण कम होगा।
- ग. जल को प्रदूषित ना करें अपने आसपास के नदी तालाबों में कूड़ा कचरा ना डाल कर उसे स्वच्छ रखने का प्रयास करें।

इस प्रकार हम प्राकृतिक पर्यावरण प्रदूषण को रोक सकते हैं। हमारा पर्यावरण स्वच्छता रहेगा तो हम भी सुख और स्वस्थ रहेंगे। प्रकृति भी हरी भरी रहेगी।

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limate change has inexorably stacked the deck in favour of bigger and more intense fires across the world over the past few decades, science has incontrovertibly or definitely shown. Increasing heat, changing rain and snow pattern, shifts in plant communities and other climate-related changes have vastly increased the possibility that fires will start more often and burn more intensely and widely than they have in the past.

In some ways, fire is simple. It takes three components – the right weather and climate condition, plenty of burnable fuel and a spark. The clearest connection being the warming of air temperatures. The planet has heated up nearly continuously since the start of the Industrial Revolution in the late 1800s, when we started burning massive quantities of fossil fuel, releasing carbon dioxide that traps excess heat in the atmosphere. Since then, global average temperatures have ticked up roughly 1.8 degree Fahrenheit (1 degree Celsius). The hotter and drier the air, the more it sucks up and the amount of water it can hold increases exponentially as the temperature rises, small increases in the air's heat can mean big increases in the intensity with which it pulls out water.

Forest fires have been increasing dramatically as global warming is leading to longer and more extreme weather events. Rising temperatures create drier conditions in the forest, milder winters that lead to lower snowpack, higher pest populations and longer fire seasons. Larger burden area from fires result from more dried out and dead vegetation which acts as a tinderbox of fuel that is easily sparked by lightning or people. And as the forests burn, they release carbon dioxide and other global warming gases, worsening climate change. As wildfires burn more land, emissions go up.

#### IMPACT ON HUMAN HEALTH

Human health has always been influenced by climate and weather. Changes in climate and climate variability, particularly changes in weather extremes, affect the environment that provides us with clean air, food, water, shelter, and security. Climate change, together with other natural and human-made health stressors, threatens human health and well-being in numerous ways.

Extreme changes in the weather and environment can increase existing health problems, as well as create new ones. Extremes in weather and temperature, increased pollution and environmental toxins, and changes in food security can all cause physical and mental health problems. Climate change is likely to cause an increase in insect-transmitted infections and waterborne diseases.

The reason for this is that changes in climate could increase the length of the seasons during which insects transmit infections. Rising temperatures can cause or exacerbate a wide range of severe health problems. Prolonged exposure to extreme heat can cause: heatstroke, heat exhaustion, muscle cramps, worsening of existing conditions, such as respiratory and heart conditions. An increase in air pollution can pose a high risk to health. Higher levels of dust, ozone, and fine particles in the air can all reduce air quality and cause or exacerbate a range of health issues, including: asthma, chronic obstructive pulmonary disease (COPD), coughing and irritation of the throat, inflammation of the lungs, risk of lung cancer, airway congestion, chest pain, heart attacks.

A combination of warmer weather and more rainfall can lead to increased dampness and fungi, including mould, indoors. These conditions can also cause breathing problems.

Anushka Sharma – XII A





## The Vidya Niketan Family



#### **SENIOR TEACHERS**

Richard Gazmer, Sadhana Dabas, Anju Negi, Harmeet Soundh, Prabha Pradhan, Suman Dayal, Suraj Choudhary, Madhu Tokas, Neelam Varshney, Shikha Sinha, Sunanda Daware, Rakhi Chiranjeev, Sanjeev Malik, Frankincense Simrah, Neetu Gogia, Nandita Chanda



#### JUNIOR AND KINDERGARTEN TEACHERS

Sunayna Thakur, Maninder Kaur, Shilpa Mishra, Parveen Saxena, Ashrita Brown, Deeksha Singh, Kusum Sharma, Meena Dutt, Manju Dhadwal, Kiran Jha, Neeta Chiranjeev, Renu Kumari, Nabila Ali, Uma Bhattacharyya, Zeba Akhtar, Shobha Rao, Ramneek Kaur

#### **CLASS IV STAFF**

Mahadev, Dharmendra, Kurban Ali, Hanuman Deen Maurya, Geeta, Veena, Laxmi Pariyal, Jagroshni, Asha, Anita, Usha





**OFFICE STAFF** Mohammad Shahid, Daniel Jacob, Leena Anthony, Ramesh Kumar

#### CLIMATE CHANGE \ SPECIAL ISSUE \ POSTERS





# MESSAGE FROM THE **FOUNDER**



Dear Students

o surrounded are we by crisis, that it is almost impossible to pick one on which the students of Vidya Niketan School can focus. This last year has troubled us on many

counts. Amphan is one of the strongest storms recorded in the Bay of Bengal with heavy losses in India, Bangladesh and Sri Lanka. In Kerala, a single landslide in a plantation killed 49 people. It is surrealistic to imagine flooded streets in Manhattan in New York and cars floating like gondolas.

Climate change will have a terrible impact on the millions that make up India's poor. In our country we have many problems, but for now we need to focus on global warming and the dreams of leaving a sustainable future for the coming generations.

It would be wonderful if our starry eyed girls and



boys start thinking of what the future might look like unless they do something about global warming.

Many things that we passionately care about are being affected by climate change. The earth needs you – so stretch out and speak up! Change habits, act and share your ideas, and understand that without "your" contribution, this beautiful planet of ours will be on the brink of disaster. Healing the planet starts in your home, your kitchen and dining table.

Your contribution to the magazine is heartwarming. Makes me proud of you. I hope what you have written becomes part of your mind processes, and lively conversations with each other and your beloved teachers.

For now, though, I cannot help but worry about the education of our children/the students of Vidya Niketan. Experimenting with virtual learning has led to some successes and pointers for the future, which are embedded in this experiment. But there can be no substitute for young minds interacting with each other on the school campus.

I personally miss, and very deeply too, the laughter and chatter right behind my office window and in front of me in our beautiful square. We must get this back, and remember always that it is your presence, that has given Vidya Niketan a soul and a world of joy.

Bless you, always,

- Mrs Aruna Naqvi





















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