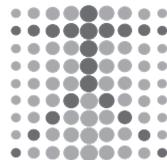


THE GREEN LEAF

GREEN CURRICULUM
JUNIOR SECTION



The C.A.S. School
Vol 3: May 2025

Headmistress Kashfa Samad

Editor Samar Kashif Kazmi

Faculty Advisors Kashfa Samad
Sana Danish
Zehra Imtiaz
Abeer Fatima Hussain

Editorial Board

| | |
|-----------------------|--------------------|
| Aaraiz Fahad | Joan Taha |
| Abdur Rafay | Sahar Aziz Paracha |
| Aisha Shohab | Shahxerwan Faraz |
| Anaya Rahman | Zarah Dars |
| Arshaan Neville Wadia | Zoya Ammar Marfani |

Photography Samar Kashif Kazmi

Computer layout Rameez Hussain

Printed at Wasam Packages

First published in Pakistan in 2023 by The C.A.S. School, Karachi

Copyright © The C.A.S. School

All rights reserved. No part of this book may be reproduced, transmitted or stored in an information retrieval system in any form or by any means, graphic, electronic or mechanical, including scanning, photocopying, taping and recording, without prior written permission from the publisher.

The C.A.S. School
205, Saba Avenue
Phase 8, DHA
Karachi
Tel: (92-21) 3525-1491 to 96, 0307-333-1491 to 93, 0301-821-5771
Email address: info@cas.edu.pk

Vol 3 : May 2025

 @thecasschoolpk



This issue of
The Green Leaf
is dedicated to

Greta Thunberg



The younger generations must develop a strong sense of environmental responsibility, understanding how their choices today will shape the world of tomorrow.

It's crucial they understand the importance of protecting biodiversity, conserving resources, and living sustainably.

Schools have a vital role in this transformation, incorporating environmental education into every subject and encouraging students to take action. ■

Kashfa Samad

Headmistress, Junior Section



Each year, students engage in projects focused on sustainable living, and this year was no exception. In addition to making organic compost, students explored vertical farming through a hands-on project. Field trip to MagnifiScience helped them learn about practices such as seed ball making and the importance of mangroves. A visit to Sungold Farm, a fully sustainable farming operation in the outskirts of Karachi, gave students the opportunity to witness these eco-friendly methods in action, deepening their understanding of sustainable agriculture. We hope these experiences will inspire them to continue adopting these practices in their own lives. ■

Samar Kashif Kazmi

Editor and Coordinator, Green Curriculum



Editorial board

Back row (l to r):

Aaraiz Fahad, Zarah Dars, Joan Taha, Zoya Ammar Marfani

Front row (l to r):

Aisha Shohab, Arshaan Neville Wadia, Anaya Rahman, Shahxerwan Faraz,
Sahar Aziz Paracha, Abdur Rafay



The Green Curriculum team

Back row (l to r):

Asif Raza, Niaz Muhammad, Ali Raza, Razzaq Ali, Ali Nawab, Rimdad Ali,
Ali Murtaza, Adnan Nawaz, Naeem Ali

Front row (l to r):

Kashfa Samad (Headmistress, Junior Section), Samar Kashif Kazmi (Coordinator, Green Curriculum)

The C.A.S. School





Growing your own food

Growing your own food has many benefits. Not only does it save you money, it also helps the environment as there is no need for packaging and transporting food. In addition it supports the environment by

providing homes for pollinators like bees and butterflies. Gardening can teach you fun and useful skills for a more sustainable way of living. ■

Mir Mesum Ali, 6A

Vertical farming

Vertical farming is a way of growing plants in cities, to help with problems like population growth, urbanization, and climate change. This method saves water, making it a good way to grow food in cities without wasting resources. We grew herbs in recycled plastic bottles. This experiment taught us how we can grow more plants in less space while using less water. ■

Fatima Aman, 6A



Sustainable farming

Sustainable farming involves growing food in environment friendly ways using fewer resources. These methods enable us to rely less on fossil fuels, use fewer pesticides and fertilizers, save water through drip irrigation, and keep the soil healthy with compost. This helps protect nature, reduce pollution, and make sure we have enough food now and in the future. ■

Suleiman Ovais Allawala, 6A







Sustainable and clean energy

This academic year, students in the Junior Section took exciting steps towards becoming more eco-conscious. They worked on reducing waste with the help of recycling challenges in their Design and Technology class and during Green Curriculum lessons. Students focused on transforming plastic waste into innovative projects, including a design for vertical farming. These hands-on activities help students develop practical skills

and encourage them to take responsibility for the planet.

Solar Panels

Solar panels, placed on rooftops where they can get lots of sun, turn sunlight into electricity. Solar energy is a clean and renewable resource. Using solar energy helps protect the Earth because it doesn't create pollution. ■

Wind turbines

Wind turbines have big blades that spin when the wind blows. When the blades spin, they generate electricity. Wind energy is a renewable resource. Wind farms can make enough power for entire towns! Wind energy is a smart way to use nature to give us clean power. ■



Hydro electric power

Hydropower uses the energy of moving water to generate electricity. Dams are built on rivers to control the flow of water. When the water moves through the dam, it spins big machines that generate power. Hydropower is a renewable resource because water keeps flowing in rivers. ■



Geothermal energy

Geothermal energy comes from the heat of the Earth. Deep underground, the Earth's core is very hot, and that heat can be used to make electricity. People build special power plants to capture the heat and turn it into energy. Geothermal energy is renewable because the Earth's heat never runs out. It's a cool way to use the planet's natural heat to power our homes and schools. ■



Eeshaal Arabi, 6A
Mustafa Kashif, 6C

Minha Alam, 6A
Zain Mustafa, 6C





Seasonal harvesting

How does growing your own food make a difference? For one, it helps us understand where our food comes from and encourages healthy eating habits. It also teaches us responsibility and patience. Growing your own vegetables is better for the environment too, because it reduces the need for packaging and helps cut down the transportation cost. At our school vegetable patches, when harvest time arrives, students are full of excitement. They harvest fresh produce and proudly share it with the support staff too. This year, both summer and winter vegetables were harvested which included eggplant, bitter gourd, tomatoes, chillies, okra, cucumbers, spinach, carrots, radishes, cabbage and more. Students were thrilled to see the products of their hard work. ■

Ahmad Ali, 6B
Syeda Basma Ali, 6B







Pakora activity

One of the most exciting activities at school was the *Pakora* activity. Culinary experts visited our school to help students of Class 6 make crispy *pakoras*. The delicious vegetables used for the fritters came straight from the school garden.

Students had the experience of picking vegetables and frying delicious *pakoras*. These tasty fritters were sold to students of

the Junior Section and teachers, who couldn't wait to try them. Everyone loved the treat!

This activity taught us how important it is to learn the skill of growing your own food. By the end of the day, we all felt proud of our hard work. ■

Moomal Murtaza, 6A
Zoya Ammar Marfani, 6B
Ibrahim Azhar, 6C





302 kg

vegetables harvested
in the academic year 2024-25

Composting

Composting is a process that recycles kitchen waste, turning it into valuable organic fertilizer, which would otherwise be discarded.

Compost is like a magic potion for plants! It gives plants lots of nutrients to help them grow strong and produce more flowers and fruits. Adding compost to soil is better for the environment because it uses recycled items like fruit peels and leaves instead of throwing them away. ■

Zoya Marfani, 6B
Khadija Rehman, 6B



Composting is a great way to keep Earth clean and grow strong and healthy plants. Here is how compost made from waste helps:

1. Adds nutrients to soil.
2. Prevents erosion by improving soil structure.
3. Reducing plant diseases and the need for chemicals.
4. Fighting climate change.
5. Helping plants survive droughts by improving soil's ability to retain moisture. ■

Sajjal Faraz, 6A





Students are enjoying interesting environmental videos that make lessons more fun. ■

Green Curriculum

Timetable for the collection of kitchen waste

Academic year 2024 -25

| First Term (August to December 2024) | | | | | |
|---|------------------------|---------------------------|------------------------|-------------------------|-------------------------|
| Class 3 (all sections) | Monday 19 August | Monday 9 September | Monday 7 October | Monday 4 November | Monday 2 December |
| Class 4 (all sections) | Tuesday 20 August | Tuesday 10 September | Tuesday 8 October | Tuesday 5 November | Tuesday 3 December |
| Class 5 (all sections) | Wednesday 21 August | Wednesday 11 September | Wednesday 9 October | Wednesday 6 November | Wednesday 4 December |
| Class 6 (all sections) | Thursday 22 August | Thursday 12 September | Thursday 10 October | Thursday 7 November | Thursday 5 December |

| Second Term (January to May 2025) | | | | | |
|--|-------------------------|--------------------------|-----------------------|----------------------|--------------------|
| Class 3 (all sections) | Monday 13 January | Monday 10 February | Monday 10 March | Monday 7 April | Monday 5 May |
| Class 4 (all sections) | Tuesday 14 January | Tuesday 11 February | Tuesday 11 March | Tuesday 8 April | Tuesday 6 May |
| Class 5 (all sections) | Wednesday 15 January | Wednesday 12 February | Wednesday 12 March | Wednesday 9 April | Wednesday 7 May |
| Class 6 (all sections) | Thursday 16 January | Thursday 13 February | Thursday 13 March | Thursday 10 April | Thursday 8 May |



1,900 kg
compost produced
in the academic year 2024-25



House competition

Throughout the year, students in the Junior Section participate in school's monthly kitchen waste collection by bringing compostable waste from home, learning to take responsibility for the environment. Kitchen waste collection not only promotes sustainable habits but also encourages friendly competition among children. At the end of the year, the total amount of kitchen waste collected by each

school House is calculated, and the House with the highest contribution is declared the winner. This year's results are: ■

| | |
|--------------|----------|
| Blue House | 2,631 kg |
| Yellow House | 2,602 kg |
| Red House | 2,486 kg |
| Green House | 2,378 kg |

This year's top composter, collecting the most kitchen waste is BLUE HOUSE. Congratulations to the winning House!



Waste management

Waste management is very important for the health of our planet. When waste is not disposed off properly it can contaminate air, water and soil. Every year, we throw away so much waste that it would go

around the Earth 24 times! If we don't change, our planet and future generations will suffer consequences beyond our imagination. As a result, human and other species might become extinct. ■

Reducing waste

Everyone can help reduce waste. Here's how to get started:

- **Recycle:** Know what can be recycled, like paper, plastic, and glass. Use the right bins!
- **Choose Reusable:** Bring a water bottle and lunch box instead of single-use plastic.
- **Compost:** Turn food scraps into compost.
- **Donate:** Give away things you don't use.
- **Shop Smart:** Avoid too much packaging, and wasteful shopping.■

Aisha Shohab, 6C
Inaya Habib, 6C

5 R's to the rescue

The R's of waste management are refuse, reduce, reuse, repurpose, and recycle. These help us reduce waste and improve recycling, minimizing landfill waste and improving recycling programmes.

To manage waste we must reduce the amount of waste produced and recycle as much as possible. This way we can help our planet become a better place.■

Bilal Imtiaz Saithna, 6B





The Great Pacific Garbage Patch

The Great Pacific Garbage Patch is a giant area in the Pacific Ocean covered with floating plastic waste. It is located in the North Pacific Gyre, a place where ocean currents swirl and trap trash, somewhere between Hawaii and California. This patch isn't a solid pile of garbage, but a spread out collection of plastic pieces, fishing nets, tiny plastic bits (called microplastics), and other trash. It's been getting bigger, since 1950, as more plastic is produced and not enough is recycled. Now it covers an area bigger than many countries

and is referred to as a Trash Island. There are many efforts to clean up the Great Pacific Garbage Patch. For example, The Ocean Cleanup Project is working on new technology to remove plastic from the ocean. However, the best way to stop the problem is to use less plastic, recycle more, and make sure trash doesn't end up in the ocean in the first place. Reducing our plastic use can help protect the ocean and the animals that live in it. ■

Basma Ali, 6B



Students use art to raise awareness about the impact of plastic pollution. Through creative posters, they highlight the urgent need to reduce plastic use.



What's wrong with Bonsai

Bonsai is the Japanese art of growing small trees in pots. These plants are carefully shaped to look like full sized trees. The word 'bonsai' means 'planted in a container'. Bonsai lovers trim the branches, shape the trunk, and stunt the growing tree to look miniature versions of large trees.

While it may be a beautiful and calming hobby for some, there are some important things to consider. Bonsai is essentially an anti-nature

activity, in the sense that one artificially stunts the growth of what would otherwise have been a fully-grown tree. It is like keeping a young child's growth artificially controlled (or stunted) to keep them forever and ever dwarfed. This is cruel, restricting a tree's natural growth, and as conservationist argue, it causes stress and pain to the Bonsai tree. ■

Sofia Irani, 6C
Inaya Habib, 6C



Flower show

Flower shows are important because they help people appreciate nature's beauty and understand the hard work it takes to grow plants. The Annual Flower Show arranged by the Horticultural Society of Pakistan was held from 20 to 23 February at the A.K. Khan Park, Sea View, DHA. Students of the Junior Section had the chance to visit and see vibrant flowers of all colours and shapes.

To make the visit more fun and educational, students were given a worksheet homework. They had the opportunity to speak to gardeners and to learn how different flowers grow. In the worksheet, they shared their favourite moments, like smelling sweet flowers or learning how to care for plants. ■

M Daniyal Haseeb, 6C
Aaryaan Adnan Khan, 6C



Bake sale

Our school buzzed with excitement on the Annual Bake Sale. The Green Curriculum stall was the star of the show. Ms Samar, Ms Zahra and a team of Class 6 volunteers worked hard to make it a success. At the stall lemonade made with fresh mint from the school garden, organic compost made by the Junior Section students, and delicious jams and pickles were sold.

Students shared interesting facts about composting, and proudly explained how their products were made. It felt like running a real shop! By the end of the day, the Green Curriculum stall had not only made sales but had also spread the message of sustainable living. ■

Haania Bhutto, 6A
Isa Habib Syedain, 6C

Amphibians and reptiles

Amphibians and reptiles are both cold-blooded vertebrates, but they exhibit distinct differences. Can you help identify which ones are amphibians and which ones are reptiles? ■





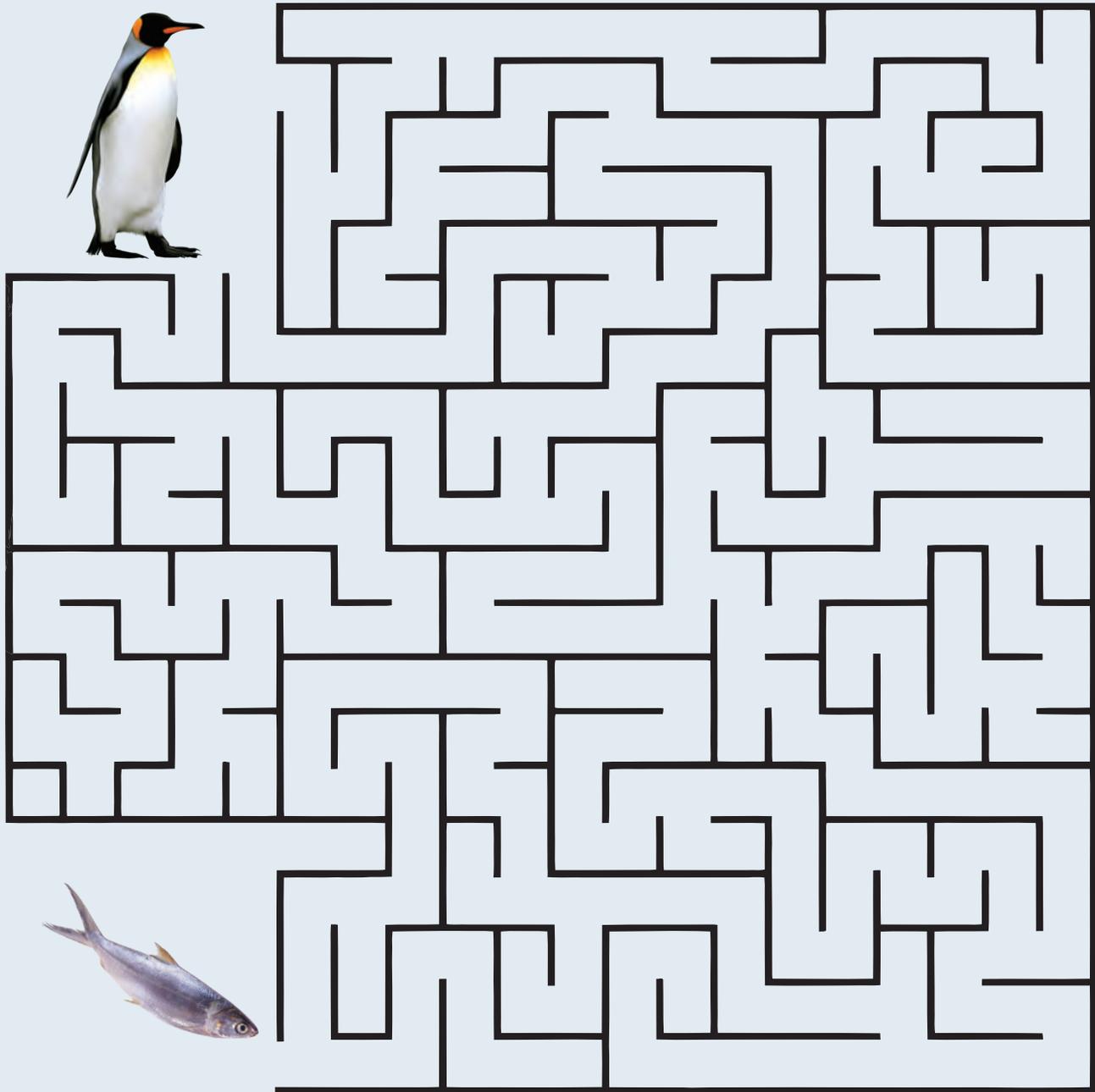
Melting homes

Polar bears need sea ice to live but climate change is making the Arctic warm and the ice is melting faster than ever. Arctic Ocean ice has been shrinking and without it, polar bears struggle to find food and raise their babies. They've started looking for food on land and swim longer distances, but that's not enough to replace the ice. To help

polar bears, scientists are trying to protect areas where ice will last the longest, called 'last ice areas'. It's important to keep a close watch on polar bear populations and how they react to the loss of sea ice. Reducing climate change can give polar bears a better chance to survive. ■

Minahil Fatima Sarfaraz, 6B

Help the penguin find it's food!





Blind dolphins of the Indus

The Indus River dolphin, also called the 'Bhulan' is a rare and ancient freshwater dolphin found only in the Indus River in Pakistan and the Beas River in India. Known for swimming on its side, this dolphin has a thin snout, rounded belly, small dorsal fin, and large flippers.

Indus dolphins are endangered and are some of the world's rarest mammals! Because their river

home is naturally muddy, their eyesight is poor, so they use echolocation to find food, mainly fish, and to explore their surroundings. Known for their playful behaviour, these dolphins are now endangered due to pollution and habitat loss. ■

Khadija Rahman, 6B
Rohaam Bari, 6B

Word Scramble

Rearrange the letters to spell the name of an animal.

OLPHIND

Hint: I'm a smart sea creature that loves to jump and play!

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

TLEEANHP

Hint: I have a long trunk and big ears, and I'm the largest land animal!

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

GERTI

Hint: I have orange fur with black stripes and am a powerful hunter!

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

NILO

Hint: I'm known as the king of the jungle!

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

OAGNOKAR

Hint: I hop on strong legs and carry my baby in a pouch!

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

ADNPA

Hint: I love eating bamboo and have black-and-white fur!

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

BZREA

Hint: I look like a horse but have black-and-white stripes!

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Turtle watch

The Turtle Beach in Karachi is a protected nesting ground for endangered green sea turtles. In October 2024, students of Class 5 visited this conservation site, a natural habitat for these endangered green turtles. Students saw a large turtle gracefully laying eggs on the soft sands of the beach. The massive creature then covered her precious clutch of over 100 eggs. Later, the students were filled with excitement as they released the tiny hatchlings, from eggs laid earlier, into the gentle waves. Watching the tiny turtles starting their journey in the vast ocean was an amazing experience for the students. Turtle watch was all about observing one of nature's miracles, creating an unforgettable memory in the hearts and minds of the students of Class 5, their parents and teachers. ■





Greta Thunberg

Greta Thunberg is a young girl from Sweden. She was just eight years old when she learned about climate change and was shocked that adults weren't doing much to fix it. By the time she was 11, Greta became so sad about the state of the planet that she decided to start campaigning for conservation and preserving the planet.

At 15, Greta decided to take action. She skipped school and sat outside the Swedish Parliament with a sign that said 'School Strike for Climate.' At first, she was alone, but soon, more children around the world joined her. In March 2019, over 1.6 million people in 125 countries took part in the first Global Climate Strike inspired by Greta.

Since then, Greta has spoken to world leaders, sailed the seas on a wind-powered boat, and even been nominated for The Nobel Peace Prize. Inspired by heroes like Rosa Parks, a civil rights activist in the US in the 1960's, also sometime referred to as the Mother of Modern Civil Rights movement, Greta is now inspiring children around the world to stand up for saving our planet. ■

Yashal Larik, 6C
Chaudhry Shahmir, 6B
Rohal Jan, 6B







Greta Thunberg and Asperger Syndrome

Greta Thunberg has Asperger Syndrome. It is a condition that affects how people communicate and experience the world.

For Greta, it means she can focus deeply on important things, like saving the planet! Sometimes people with Asperger's might find social situations tricky or feel overwhelmed. Greta even stopped speaking for a while when she was younger because she felt so sad about

climate change but she didn't let anything hold her back. Instead, she calls Asperger's her superpower. She says it helps her see clearly when it comes to protecting the Earth. It's either we act NOW or NEVER.

Because of her focus and bravery, Greta has inspired millions of people around the world. She shows that being different is not a weakness, it can be your greatest strength! ■

Worksheets for Green Curriculum



The C.A.S School



Name _____ Class 6, Section _____ Date _____

Indus River Dolphins

The Indus River dolphins live in the Indus River in Pakistan. These dolphins are known for their ability to live in freshwater, which is different from most dolphins that live in the ocean. They prefer parts of the river, where the water is shallow and has lots of fish to eat. They use their sharp teeth to catch fish in the murky waters of the river.

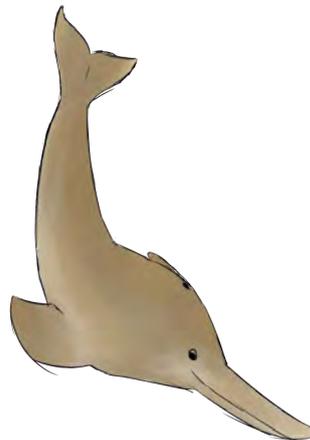
The Indus dolphins have a small, grayish body and a long, thin snout. They have poor eyesight and rely more on echolocation to find food and navigate the river. Echolocation, or sonar, is the use of soundwaves to determine the location of things in the surroundings.

Indus River dolphins do not typically stay in pods like many ocean dolphins. They are known to be solitary creatures, which means they often live alone or in small groups, usually consisting of just a few dolphins.

The Indus River dolphin is considered an endangered species. The biggest threats to these dolphins are pollution, loss of habitat, and human activities like building dams that block the dolphins' movement along the river. Many conservation efforts are being made such as creating protected areas where the Indus River dolphins can live safely.

Circle the correct option.

- Where do Indus River dolphins live?
 - Ocean
 - Rivers
 - Lakes
- What do Indus River dolphins mainly eat?
 - Plants
 - Fish
 - Squid
- How do Indus River dolphins find their food?
 - By using their excellent eyesight
 - By using echolocation
 - By swimming fast
- What is one of the main reasons Indus River dolphins are endangered?
 - They are hunted for food
 - Pollution and loss of habitat
 - They migrate to the ocean
- Indus River dolphins are
 - extinct
 - endangered
 - found in large numbers



Samar Kashif Kazmi / Oct 2024



The C.A.S School



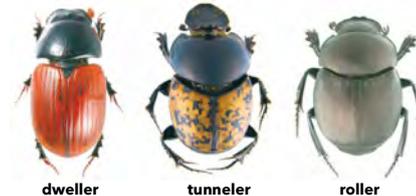
Name _____ Class 6, Section _____ Date _____

Dung Beetles

Dung beetles are nature's recyclers. They feed on animal droppings, also known as dung and help in the decomposition process by recycling nutrients back into the soil.

Dung beetles are known for rolling dung into balls. They do this because they use it as food or as a place to lay their eggs. They roll the dung away from the dung pile to protect it from other beetles and predators. A dung beetle is incredibly strong. Some species can pull objects that are over 1,000 times their body weight.

There are three main types of dung beetles:



The dwellers stay in the dung pile without burying it. The tunnelers bury the dung in tunnels they dig underground. The Rollers roll dung into balls to take to their nests.

Some dung beetles can navigate using the stars. Researchers found that certain species use the stars in the Milky Way to help them travel in a straight line while rolling their dung balls. They can also use the sun and the Earth's magnetic field to find their way.

Write whether the following statements are true or false.

- Dung beetles primarily feed on plant material.

- Dung beetles roll dung into balls to use as a food source or as a place to lay their eggs.

- Dung beetles are not very strong and can only lift their body weight.

- There are three types of dung beetles: tunnelers, dwellers, and rollers.

- Some dung beetles navigate using the stars, the sun, and the Earth's magnetic field.

Samar Kashif Kazmi / Oct 2024



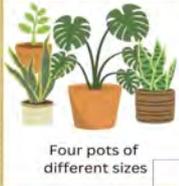
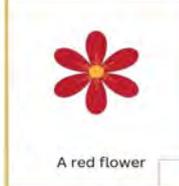
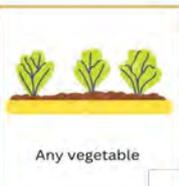
The C.A.S School



Name _____ Class 3, Section _____ Date _____

Scavenger Hunt

Tick the things you find.

| | | |
|--|--|---|
|  Three different types of trees <input type="checkbox"/> |  Four pots of different sizes <input type="checkbox"/> |  A red flower <input type="checkbox"/> |
|  A watering can <input type="checkbox"/> |  A cloud <input type="checkbox"/> |  Four different types of leaves <input type="checkbox"/> |
|  A twig <input type="checkbox"/> |  A flying insect <input type="checkbox"/> |  A black insect <input type="checkbox"/> |
|  Any vegetable <input type="checkbox"/> |  A wheelbarrow <input type="checkbox"/> |  A trowel <input type="checkbox"/> |

Samar Kashif Kazmi / Oct 2024



The C.A.S School



Name _____ Class 4, Section _____ Date _____

Scavenger Hunt

Place a check ✓ next to each item you find.

| | | | |
|--|--|---|--|
|  | <input type="checkbox"/> Something made of plastic |  | <input type="checkbox"/> A piece of litter |
|  | <input type="checkbox"/> A flying bird |  | <input type="checkbox"/> A white flower |
|  | <input type="checkbox"/> A recyclable item |  | <input type="checkbox"/> A yellow leaf |
|  | <input type="checkbox"/> A plant with large leaves |  | <input type="checkbox"/> A spider web |
|  | <input type="checkbox"/> A red insect |  | <input type="checkbox"/> A bird nest |
|  | <input type="checkbox"/> Anything round |  | <input type="checkbox"/> A compost bag |
|  | <input type="checkbox"/> Something wet |  | <input type="checkbox"/> A gardening tool |
|  | <input type="checkbox"/> A watering hose |  | <input type="checkbox"/> Something pink |

Samar Kashif Kazmi / Oct 2024



Urban forests

It's a hot June afternoon in Karachi. Cars honk in the distance, and tall buildings line the streets. But in the middle of all the noise and concrete, something surprising is growing, a small forest filled with *Neem*, *Beri* and *Amaltas* trees. Birds are chirping, butterflies flutter from leaf to leaf, and a lizard scurries into the bushes.

This might sound like a dream, but in cities like Lahore, Karachi, and Islamabad, people are starting to plant urban forests.

These forests don't need huge areas. Some are as small as a basketball court but they have a big impact on our planet. They attract birds, bees and butterflies, clean the air and make the weather cooler and also help fight climate change by storing carbon dioxide.

What if you planted the first urban forest in your neighbourhood? ■

Minahil Irfan, 6C

Little hands big blooms

Last year, students of the Junior Section planted saplings of the *Gulmohar* trees along the school's boundary walls. Now, those trees have grown taller than the children themselves.

Gulmohar trees, also called Flame of the Forest, with their fiery red blossoms brighten the surroundings of our school building. Their vibrant flowers bring a burst of colour each summer, reminding us how small efforts can lead to big and beautiful results. ■





Sungold Farm

Every year, students of Class 6 look forward to the exciting trip to Sungold Farm, owned by Mr Muzzamil Niazi and his wife Ms Rabia Niazi.

The couple lives on the farm to make sure all the plants grow healthy and the animals are happy. The farm stretches across 6 acres of lush greenery, bursting with colourful vegetables, blooming flowers, and cheerful chickens clucking around. The students loved exploring

the fields, spotting bright red tomatoes, crunchy carrots, and even collecting warm, freshly laid eggs from the chicken coop.

At the end of the visit, every student got to take home a bag full of fresh veggies, fragrant herbs, and eggs. A tasty souvenir from a day full of fun! ■

Musa Asad, 6B
M Mustafa Alam, 6B





MagnifiScience

As part of their syllabus, students of classes 3 and 4, visited the TDF MagnifiScience Centre, where they explored both the indoor exhibits and the outdoor Science Garden. Outdoors, they enjoyed the natural environment and learned

about biodiversity, and the role of pollinators. Inside the museum, students discovered exhibits on mangroves, the human body, and various other fascinating science topics. They enjoyed activities like the scavenger hunt and seedball making, which have become a fun tradition. ■



Scavenger Hunt

Students of the Junior Section went on a scavenger hunt on the school premises. From intricate webs spun by spiders to beautiful sounds echoing through the branches of trees, scavenger hunts are a wonderful way of exploring our environment. Students marvel at the different types of trees and plants, and uncover the fascinating habitats of the smallest creatures. It is more than a scavenger hunt; it is a journey of appreciation of the rich biodiversity that is around us. ■

Editorial Board



Garden Scavenger Hunt

How many can you find?



a smooth stone

a vegetable

a feather

a herb

a nibbled leaf

a spider's web

something spiky

a plant pot

something fluffy

letter-shaped twig

a flower

a wild flower

new leaf shoots

a bee

butterfly

a local tree

a flying insect

a waxy leaf

a yellow leaf

an old crispy leaf





Fascinating creatures

There are many creatures that exist in the world. While some look amazing, some are just plain weird! Ever heard of the Aye Aye? Yes, it's a real animal! Keep reading to learn about more animals like it.

Axolotl

The axolotl is a unique type of salamander that

never fully grows up. Unlike most amphibians, it doesn't go through metamorphosis. Instead of moving to land, it stays underwater its whole life, keeping its gills and baby-like appearance. Axolotls are native to lakes in Mexico and are known for their ability to regenerate lost limbs and even parts of their heart and brain! ■



Blobfish

Known as the ugliest animal in the world, the Blobfish lives deep in the waters off the coasts of Australia and New Zealand. It even holds a world record for being the ugliest animal. It is probably not fair to call it ugly, it is just very different.

There are so many more unusual and different looking creatures out there, each one unique and fascinating in its own way!■

Joan Taha, 6A
Rania Jam, 6B



The Star-Nosed mole

The star-nosed mole is one of the most bizarre creatures ever! It has 22 tiny tentacle-like fingers around its nose that wiggle around super fast. These fingers help the mole feel its way through dark, muddy tunnels as it hunts for food.

The mole lives in wet areas, like swamps and marshes, and digs through the dirt looking for

worms and bugs. Its nose has over 100,000 nerve endings, making it one of the most sensitive noses in the world. And guess what? It can even smell underwater! Even though it looks pretty bizarre, the star-nosed mole is perfectly designed for its underground life. ■

Shahmeer Siddiqui, 6A
Aiza Danyal, 6C



The Anglerfish

Imagine swimming in pitch-black water, miles below the ocean's surface, and suddenly seeing a tiny glowing light. You might think it's something magical, but it's actually a trap! The Anglerfish uses a glowing lure on its head to attract prey.

These deep-sea fish look like something out of a horror movie, with giant teeth and spooky eyes.

But they have to look scary to survive in such a tough and inhospitable place. The female Anglerfish is way bigger than the male, and the male actually bites onto her and fuses to her body. He lives like a little parasite, sharing her food and helping her make babies. ■

Celina Khan, 6A

Pollination

Pollen is a fine powder from the male part of flowers. It helps plants make seeds and fruits, which is important for new plant growth. Pollen also feeds bees and other insects, helping them survive. Pollination happens when pollen moves from a flower's male part (stamen) to its female part (pistil), usually by pollinators. This transfer is essential for plant reproduction, leading to fertilization and the development of seeds. ■

Eymen Aslan, 6C

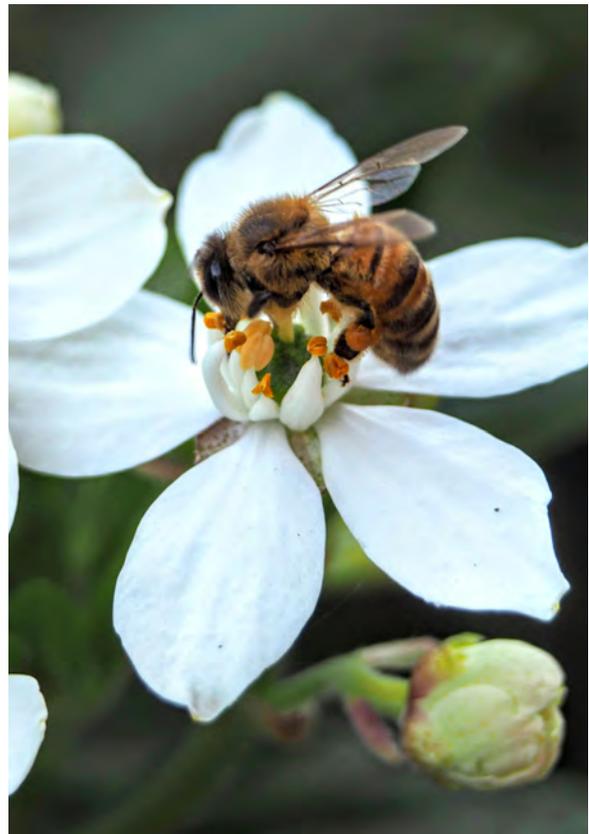


Pollinators

Butterflies, birds, bats, moths, insects

Pollinators play an important role in nature by helping plants reproduce. They move pollen from one flower to another. This process is important for growing food because many of the world's crops depend on pollination. Scientists have studied pollinators for years and discovered ways to protect them. Here are some ways everyone can make a difference:

1. Planting native flowers. Even a small flower patch can give pollinators a safe place to live.
2. Pesticides harm pollinators so we must use natural gardening methods and compost.
3. Educate people about the importance of pollinators and help with conservation. ■



Butterflies

Butterflies are small insects with big, colourful wings. They fly from flower to flower, sipping nectar and spreading pollen, which helps plants grow.

A butterfly's life starts as a tiny, hungry caterpillar. It eats a lot of leaves, then forms a hard shell called a pupa. After a week or so, the pupa opens, and out comes a beautiful butterfly, ready to fly. ■

Isa Habib Syedain, 6C



Dung Beetle

Dung Beetle is an insect that primarily feeds on dung from herbivores. They play a crucial role in ecosystems by recycling nutrients, improving soil health, and reducing greenhouse gas emissions.

Dung beetles display behaviours like rolling dung into balls or digging tunnels, providing food for their larvae and aerating the soil. They're small but mighty helpers for nature.

Dung beetles aren't just the world's strongest insects, they're the strongest animals! Some can pull over 1,100 times their body weight – that's like a person pulling six full buses! ■

Rayyan Ali, 6B
Urooj Yousuf, 6B
Abdur Rafay Hamid, 6B



Greta Thunberg

How well do you know her story?

1. What is Greta Thunberg famous for?
 - a) Playing guitar for wild animals
 - b) Fighting for the environment
 - c) Inventing flying skateboards
2. What country is Greta Thunberg from?
 - a) Candyland
 - b) Sweden
 - c) Underwater City
3. How old was Greta when she started protesting outside the Swedish parliament?
 - a) 15 years
 - b) 25 years
 - c) 3 months
4. What did Greta hold during her first protest?
 - a) A giant ice cream
 - b) A dinosaur egg
 - c) A sign that said "School Strike for Climate"
5. What does Greta want world leaders to do?
 - a) Take action on climate change
 - b) Dance on the moon
 - c) Make pizza free for everyone
6. What is the name of Greta's book?
 - a) How to be Invisible
 - b) The Secret Life of Llamas
 - c) No One Is Too Small to Make a Difference
7. What big event did Greta speak at in 2019?
 - a) The Chocolate Olympics
 - b) United Nations Climate Action Summit
 - c) Giant Robot Convention

YOUNG GREEN LEADERS Class 6



Myra Adnan



Enaya Ahmed



Minha Alam



M Mustafa Alam



Mir Mesum Ali



Ahmad Ali



Rayyan Ali



Syeda Basma Ali



Sulaiman Ovais Allawala



Fatima Aman



Musa Asad



M Aliyaan Asher



Eymen Aslan



M Ibrahim Azhar



Sardar M Barak



M Rohaan Bari



Zurain Salman Bawaney



Hania Bhutto



Zaki Ali Chagla



Ali Ahsan Choudhry



Aiza Danyal



Zarah Dars



Syed M Ebrahim



Muhammad Essa



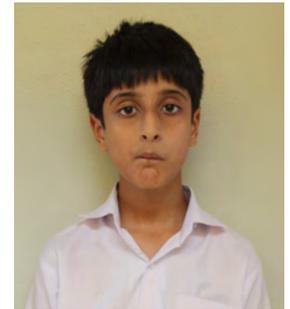
Sajjal Faraz



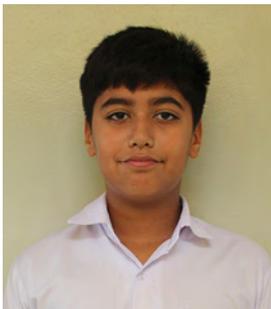
Shahxerwan Faraz



Sunaif Faraz



Arsalan Farooqui



Nayel Feroz



Rayyan Fikree



Khwahish Gangwani



Inaaya Habib



M Daniyal Haseeb



Ismail Hashim



Muhammad Hashir



Syed Zaim Hussain



Bilal Imtiaz



Chaudhry Shahmir Iqbal



Sofia Danesh Irani



Minahil Irfan



Rohal Jan



Muhammad Javeri



Zain Junaid



Rayyan Kamani



Muhammad Kashif



Syed Nadir Abbas Kazmi



Aaraiz Fahad Khan



Azmeer Amin Khan



Celina Khan



Omer Fouz Khan



Zain Ul Huda Khan



Zainab Omar Khan



Palwasha Khan



Aaryaan Adnan Khan



Emaan Asghar Khan



Yashal Asad Larik



Seher Latif



Khizar Abbas Malik



Zoya Ammar Marfani



Rais Ghazi Mohammad



Umer Akhtar Mundia



Shehryaar Aftab Munshi



Behzad Murtaza



Moomal Murtaza



Zain Mustafa



Shayaan Naveed



Sahar Aziz Paracha



Abdullah Parekh



M Mustafa Kashif Quadri



Rayyan Quraishi



Abdur Rafay



Khawaja Abdur Rafay



Ismail Abdul Rahim



Anaya Rahman



Suhas Ramrakhiani



Khadija Rehman



Zayan Roman



Raahim Saad



Minahil Fatima Sarfaraz



Ayra Sarim



Syed Ahmad Ali Shah



Amaar Saad Shah



Mustafa Shaikh



Aisha Shohab Shaikh



Rania Jam Sheroz



Eshall Siddique



Shahmeer Siddiqui



Areesha Siddiqui



Rania Sultan



Isa Habib Syedain



Zahra Binte Tabish



Joan Taha



Hassan Bin Tabish



Rayyan Tohid



Arshaan Neville Wadia



Alayna Tariq Younus



Urooj Yousuf



Syeda Inaya Zaidi

Young Green Interns

Class 3

Syed Ghazi Abbas
Minnah Adil
Fateh Gul Aga
Zoya Ahmed
Jam Zurain Ahmed
Arya Ahsen
Kazi Mahad Aijaz
Mushk e Mustafa Akmal
Zayd Alam
Ariana Ali
Mir Hamza Ali
Muhammed Eesa Anjum
Muhammad Arhaan
Muhammad Ibrahim Arsalan
Inayah Arsalan
Cymal Atif
Mohammad Shahmeer A Awan
Shanzay Bhutto
Syed Abdul Samad Ali Chishti
Eshaal Saqib Choudhry
Emaneh Danish
Ariana Daudpota
Syed Muhammad Eesa
Emaan Faisal
Ismail Faisal
Ayra Faisal
Muhammad Rohaan Faraz
Syeda Anamta Farhan
Abdul Wali Farooqui
Ali Noor Gazdar
Sardar Braahym Khan Gurchani
Aaz Haq
Samara Haris
Ayesha Hashim

Ali Hasnain
Syed Rohail Hassan
Mian Asad Hussain
Mustafa Irfan
Syed M Warood e Mujtaba Jafri
Muhammad Asad Jaliawala
Zoe Eva Ali Janjua
Ibrahim Junaid
Eliana Junaid
Rania Kamani
Hosain Moien Khan
Layla Noor Khan
Muhammad Zavvaan Khan
Narmeen Fouz Khan
Agha Fardad S Khan
Faateh Khaqan
Ayan Fazal Ellahi Kushtiwala
Elyana Laiq
Ilyana Lakhani
Mekael Ali Malik
Zeynab Mashooqullah
Zayaan Moiz
Zohaam Moiz
Mahira Murtaza
Miraal Mustafa
Muhammad Ibrahim Mustafa
Raneen Shah Nawaz
Mahnoor Khan Niazi
Nayel Masood Rai
Alayna Rais
Zoha Rais
Izmir Khan Rajput
Manaal Raza
Raina Rehan

Shehrbano Rehman
Muhammad ur Rehman
Syed Kumail Raza Rizvi
Shanzey Saad
Khawaja Muhammad Saifullah
Shahveer Ali Saim
Bushra Salman
Meesha Saad Sameeh
Mahnoor Sami
Xidane Saqib
Mirha Zarina Shah
Syed Shahbaaz Shah
Shahzain Khan Shahani
Zymel Shahzad
Muhammad Sarim Shaikh
Muhammad Zahraan Shaikh
Muhammad Aazmeer Shaikha
Muhammad Usman Shakir
Muhammad Maaz Shakir
Anabia Shariq
Rameen Sheikh
Ayla Siddiqui
Mahd Ahmed Siddiqui
Ibrahim Sohail
Danial Amir Suriya
Ayaan Taimur
Musa Usman
Muhammad Mustafa Vana
Vithuli Vidasna
Shahan Weldon
Anabia Yasir
Haneen Yawar
Zynah Waheeda Zohair

Class 4

Amal Aamir
Meher Abbas
Ayesha Abdullah
Amaan Saqib Adenwala
Mina Adnan
Aira Ahmed
Amaan Ahmed
Humza Ahmed
Alyaan Ahmed
Haniya Ahmed
Aniyah Ahmed
Mehrunissa Sabiha Alam
Muhammad Moosa Alam
Syed Abdullah Alam
Muhammad Musab Alavi
Issa Ali
Mikael Ali
Haya Annas
Sulaiman Ansir
Minha Arslan
Mustafa Aziz
Maira Babar
Yahya Bari
Alyaan Ahmed Bayanus
Aroosh Bharwani
Mohammad Essa Boghani
Enaya Boghani
Ibrahim Chaudhry
Aadil Fuad Chundrigarh
Abdur Rahman Ellahi
Shafay Essa
Muhammad Daud Fahad

Ilyana Faisal
Zainab Farooq
Abdul Hadi Farooqui
Rayyan Farooqui
Shahmeer Habib
M Daniyal Haider
Syed Muhriz Haider
Muhammad Hamdaan
Reem Hassan
Sophia Hassan
Syed Moosa Hussain
Hasaan Rahim Ilyas
Ayesha Imran
Shanzay Imran
Zeryab Danesh Irani
Anaya Jawad
Mishaal Rizwan khan
Aniyah Khurram
Maha Latif
Esa Lone
Sohaib Asif Majeed
Hamza Rehman Malick
Maha Ammar Marfani
Syeda Mahnam Mehdi
Hareem Irfan Memon
Mohammad Ahyaan Memon
Misha Mohsin
Menaal Murtaza
Hussain Mustafa
Omar Nabeel
Zara Rasheed Narejo
Abdullah Omer

Subhan Polani
Musab Abdul Rahim
Fatima Naseem Rehman
Muhammad Ibrahim Rizwan
Syra Saad
Mohammad Shazain Saleem
Alya Salman
Rayyan Salman
Agha Arzaan Salman
Mustafa Salman
Nael Saqib
Mikael Sarki
Muhammad Zaidan Shaff
Aryana Adil Shaikh
Mohammad Ibrahim Shaikh
Saad Salman Shaikh
Hajra Shahzeb Shaikh
Nayel Shayan
Mikael Siddique
Sophia Sultan
Musa Amir Suriya
Hoorain Taimoor
Mohammad Mustafa Tariq
Jam Hasnain Unar
Ayaan Usman
Zoya Neville Wadia
Bareerah Wajid
Hoorain Yahya
Humnah Irfan Yazdani
Azlan Farooq Zahid
Zeyan kamal Zuberi
Maryam Zulfiqar

Class 5

Musab Adeeb
Inaya Gul Aga
Anaya Ahmed
Enaya Ahmed
Minna Talal Ahmed
Nashmia Yasir Ahmed
Azeema Tanya Akhund
Mushk e Muhammad Akmal
Eman Omar Alvi
Eshaal Amir
Sakina Ali Asghar
Zidan Ashar
Rania Azam
Muhammad Aahil Baqai
Hania Abid Batla
Jeshvick Budhrani
Ibrahim Butt
Mihirimah Butt
Meshaal Butt
Daaria Hassaan Chaudary
Alyaan Danish
Anaya Faisal
Safa Faisal
Muhammad Rayaan Faraz
Aiman Fatima
Sardar Naseer Khan Gurchani
M Miraaj Sanaullah Habib
Mustafa Haider
Ahmed Talha Hameed
Manaal Hammad
Azlan Haroon
Muhammad Daraab Bin Hassan
Alicia Kauser Hussain
Ashar Ismail

Zahrah Jaffrani
Sara Jamal
Aaminah Hassan Jan
Abdullah Kaludi
Abdullah Sami Kehar
Fatima Zia Khaishgi
Mahra Azam Khan
Alishba Azam Khan
Ibrahim Khan
Taha Khan
Ashar Salman Kushtiwala
Shahmeer Ali Lahori
Muhammad Sarim Asad Larik
Yousuf Maaz
Alyaan Faiq Malik
Muhammad Zarrar Malik
Syeda Sakina Ali Mehdi
Fazal Hussain Mirza
Kibriya Mirza
Durood e Mustafa
Laiqa Nawab
Syed Mohammad Omer Nyle
Syed Mohammad Amaan Osman
Zimal Peerani
Salaar Pinjani
Fayez Zafar Quadri
Zarwa Sikandar Qureshi
Raed Saad Qureshi
Muhammad Rayyan
Jam Ebrahim Razzaque
Essa Abdul Rehman
Mikael Asad Rehman
Syed Arham Ur Rehman
Haashir Ahsan Riar

Ammar Ali Khayyam Riaz
Ayaan Saad
Muhammad Ibrahim Amin Saadat
Eshal Saleem
Zoha Saleem
Mahad Saqib
Rayaan Saqib
Mahnoor Sardar
Lyla Sethi
Aariz Najam Shah
Miesha Saiyyada Shahid
Alizeh Shaikh
Zunaira Shakir
Zain Ahmed Shamsi
Hurrem Shariq
Shanzay Shariq
Hasnain Ali Shigri
Ammar Hussain Siddiqui
Parizeh Siddiqui
Asfa Soban
Iman Sohaib
Abdullah Sohail
Alizeh Taimoor
Anabia Umeran
Saad Usman
Muhammad Usman Vana
Leah Wajih
Azaan Wakeel
Zeniya Yawar
Arham Zaidi
Abbas Raza Zaidi
Shanzay Zeeshan
Syed Hadi Zeeshan

We start them young

Students of KG Section Gardening Class





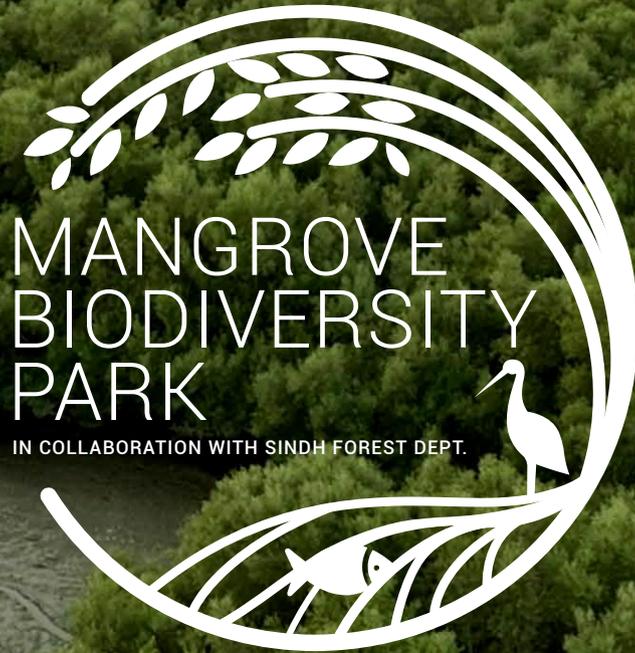


Field trip to Sungold Farm

Class 2







MANGROVE
BIODIVERSITY
PARK

IN COLLABORATION WITH SINDH FOREST DEPT.

WWW.MBPKHI.COM



Nurturing nature

The C.A.S. School and the Mangrove Biodiversity Park

The Mangrove Biodiversity Park, located along Korangi Creek, Karachi, is a pioneering initiative focusing on the importance of mangrove ecosystems in Pakistan. This park is a collaborative effort of the Sindh Forest Department and TPL Developments, led by a team of dedicated individuals.

The park's design showcases innovative and eco-conscious architecture, with a boardwalk

constructed from recycled wood and built on floating drums, allowing the facility to rise and drop with the tide. This harmonious blend of nature and design provides a unique space for students to explore and learn first-hand about nature in general, and mangrove ecosystems, in particular.

The C.A.S. School is proud to be part of this wonderful initiative and a great learning opportunity for our young students. ■



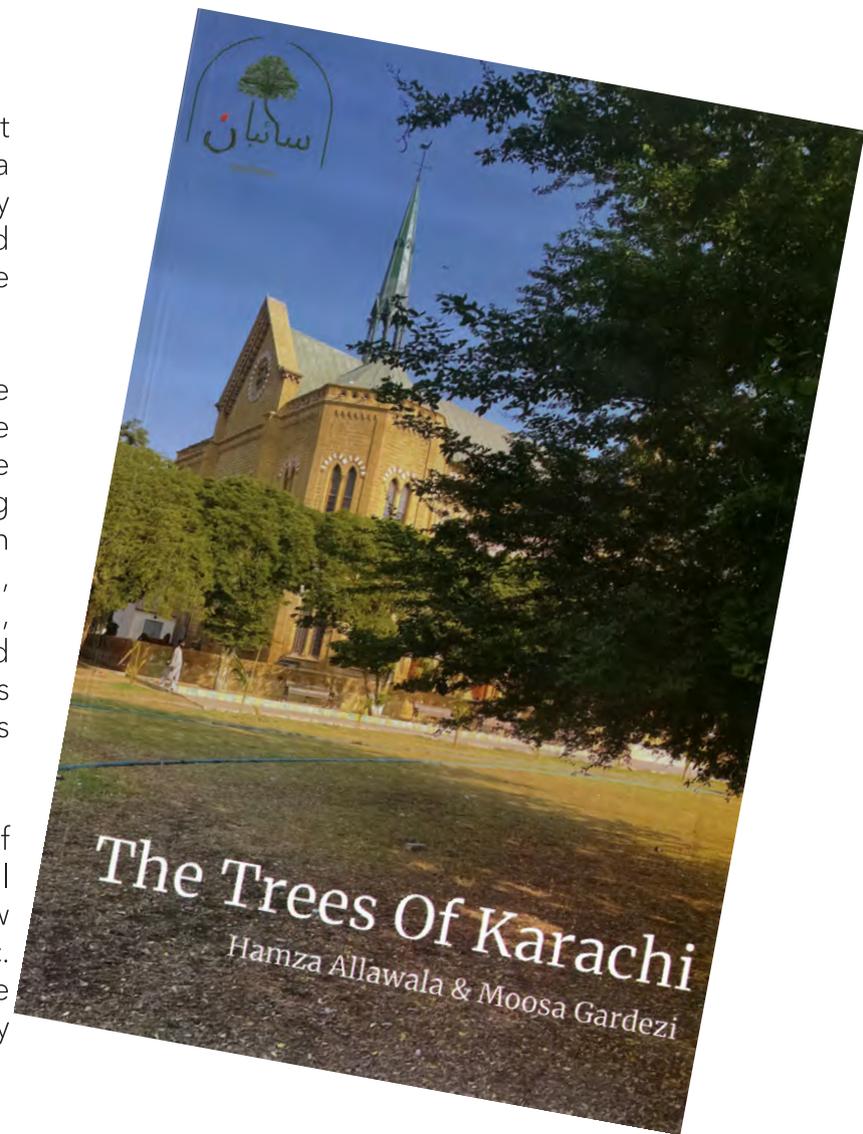


Book review

Trees of Karachi, a 47-page booklet authored by Hamza Allawala and Moosa Gaedezi is worth reading. It is strongly recommended for students who may be interested in knowing about the eco-system of Karachi, the problems and its solutions.

Some of these trees mentioned in the booklet we see in our daily lives, but never have we realised the variety of Karachi's flora and how important these trees are for a number of reasons: Apart from being an important part of our eco-system, trees are much needed for providing shade in the heat of Karachi, for providing delicious fruits (mango, jamun, chikoo, coconut), as well as providing resting and nesting place for birds. Not to mention that trees play an important role in combating the disastrous effects of climate change.

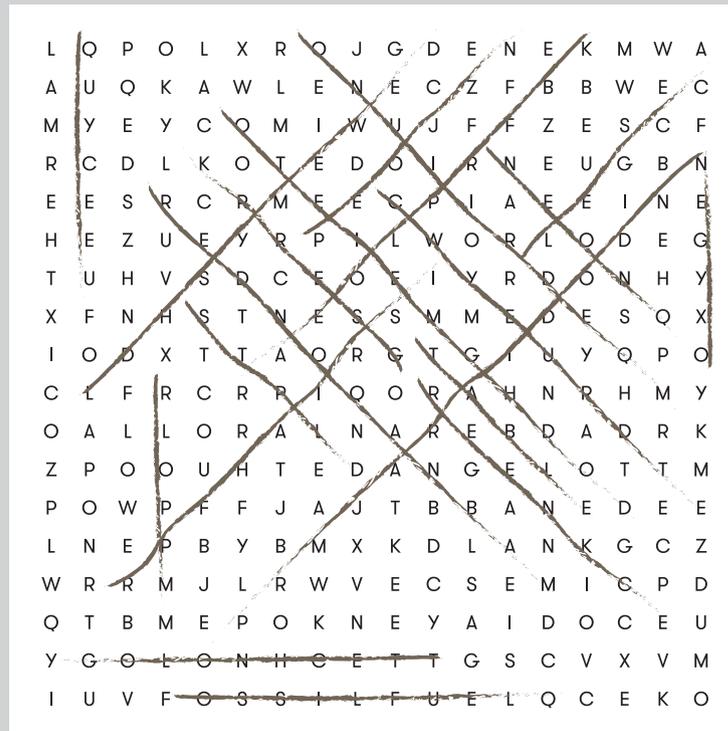
The authors have also taken the trouble of providing crucial tips as to which species work well in Karachi, where and how to plant these trees, how to take care of saplings, trimming, pruning, etc. They encourage everyone to plant more and more trees, simple as it is, but in a sense, "shockingly revolutionary idea" for tree-starved Karachi. ■



WORDSEARCH

Instructions to complete the wordsearch.

Find the listed words in the grid. They may be placed horizontally, vertically or diagonally.



BIODEGRADABLE
COMPOSTABLE
CONVERTING
EARTH
EFFICIENT

ELIMINATE
FLOWER
FOSSIL FUEL
GREEN
HYDROPOWER

ORGANIC
OXYGEN
RECYCLE
REDUCE
REPURPOSE

REUSE
SOLAR
SUSTAINABLE
TECHNOLOGY
THERMAL

S C L L T H S I F H T O O T G N A F S
 A H E H A T C H E T F I S H K O B V M
 R R A B D O M R D S K E Y U D T L A S
 C I F B I H W N L A B E J B B P U M T
 A S Y J U U V J I C T Q L N M T E P A
 S T S B Q A B F S I L B K I C V D I R
 T M E O S K C H C E C R R J I Z R R G
 I A A S S Y N R L O A H E Q H M A E A
 C S D K S V A P M H S P U S B B G S Z
 F T R O A B Z B S S P C I T R U O Q E
 R R A S L W J N I N J F Q G E V N U R
 I E G H G E I T R V B C X Q M Y Z I F
 N E O Z L L N U X O A X O L O T L D I
 G W N L B A Q K L Z A N M L T M M J S
 E O Y O M S X B S T I P A Y P E Q J H
 H R G U B A R R E L E Y E F I S H E A
 E M G Y V R W S U P O T C O O B M U D
 A I L Z R K R A H S D E L L I R F E Q
 D S K F I R E F L Y S Q U I D T J L L

AXOLOTL

BARRELEYE FISH

BLOBFISH

BLUE DRAGON

CHRISTMAS TREE WORM

COMB JELLY

DUMBO OCTOPUS

FANGTOOTH FISH

FIREFLY SQUID

FRILLED SHARK

GLASS SQUID

GOBLIN SHARK

HATCHETFISH

LEAFY SEA DRAGON

MANTIS SHRIMP

SARCASTIC FRINGEHEAD

SEA PIG

STARGAZER FISH

VAMPIRE SQUID

YETI CRAB

U A C Z O N I H R N A V A J T C C O B
 L S O L Q W S S G N O Y X L H N H R Z
 S I H C O K N N M N E R U I A Z W I N
 L A F Q Q U N K T I E C N B J D F P O
 O N N Z O U D H Z I P E B Z R I G A G
 W P I G F U H E S Q S Z N A S P N T U
 L A L A F C Q R D E M H P H X H O N L
 O L O L H P A X W L E O I G V K R A O
 R M G O M T U A K R E N M Z O K U Y C
 I C N A E Z T L Y L G O F W D X T A A
 S I A S H E O D W C D K P M M Y N L D
 I V P K R Y W O A B F A T A A E I A N
 B E C D I O N T V T U R V K R V B M U
 D T E C M S W A P V T G W S C D J C S
 X E W B N J P S U N B E A R L W R T U
 R L L N I H P L O D Y D D A W A R R I
 C L G T M I S H M I T A K I N J Y Z G
 R O H K R A M R E D P A N D A W W P Y
 T A C N E D L O G N A I S A S G U H E

ASIAN GOLDEN CAT

ASIAN PALM CIVET

BINTURONG

CHINESE WATER DEER

CLOUDED LEOPARD

FISHING CAT

IRRAWADDY DOLPHIN

JAVAN RHINO

MALAYAN TAPIR

MARKHOR

MISHMI TAKIN

PANGOLIN

RED PANDA

SAOLA

SLOW LORIS

SNOW LEOPARD

SUN BEAR

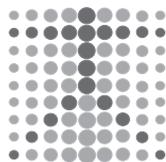
SUNDA COLUGO

TARSIER

YAK

GREEN LEAF

A publication of
Green Curriculum
classes 3 to 6



The C.A.S. School