

## NATURE NINJAS MONTHLY ACTIVITIES FOR LITTLE CLIMATE WARRIORS

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The case of climate change no longer needs to be advocated. We have been breathing in and breathing out the consequences of tampering with natural resources for centuries. Deconstructing climate change in classrooms can both be intimidating and frustrating. Research has shown that for students to absorb climate change better it needs to be made personally relevant with a thrust on positive and doable everyday actions. It also requires them to develop an awareness of global phenomena, interact with scientists and experts, and design projects to address any critical aspect of climate change or to offer solutions. Also, to keep the conversation going, climate change needs to be incorporated into curriculum as subject-agnostic and rely on cross-curricular activities. Educators have an enduring influence on learners' values and attitudes. The four walls of a simple classroom also have enormous scope for educating students with the conceptual understanding and language to articulate the issues around climate change.



Teachers can equip them to think about how they can take collective action to surmount unrelenting environmental issues. Here is a calendar full of doable activities for each month aligned with achievable goals that educators, students, and parents can follow to bring about the much-needed change where each person's emissions are reduced and empowerment is increased.

### **January: Read, Reflect, Repeat**

This is the first month of the year. Let's begin by getting to know a little more about the environment. Earlier climate sciences were always blanketed under non-fiction and populated by dry books filled with hard data and factual content. However, the 21st century has seen a rise in fictional books that talk about the various facets of climate change in interesting formats and heartening ways. Some of the best books in this 'cli-fi' or 'green fiction' genre are:

- Water Stories from around the World by various authors
- So, You Want to Know About the Environment, Bijal Vachharajani
- Trash! On Ragpicker Children and Recycling, Gita Wolf and Anushka Ravishankar

- My Big Book of Global Warming edited by Geeta Dharmarajan
- Grandfather Goes on a Strike K.S. Nagarajan

After reading these books, make sure you initiate some form of reflection with the students. Making posters, notices, and writing letters to the editor, or newspaper articles as is common to the 'syllabus' is NOT recommended. We want students to personalise and internalise their experiences of climate change. You could ask them to write a postcard to the sun perhaps asking it why it is angry with humans, an email to the clouds appreciating their funny shapes, a poem on a river's feelings on being filled with garbage, or a thank-you note to a tree. Students should also be encouraged to critically think about questions such as who owns the oceans or what would happen if garbage dumps overflow and block the roads.

### **February: Make the Smart Choice**

This month let us teach students to make sustainable choices. The best way to do this is to make it a strong value in your home and school ecosystem. To live sustainably, students must be educated about what a carbon footprint is. Then, they should be asked to measure their carbon footprint using a website such as [https://8billiontrees.com/carboncalculator/?utm\\_source=KidsCalc](https://8billiontrees.com/carboncalculator/?utm_source=KidsCalc)

This would help them gauge how their tiny individual actions fit in a larger chain of events that constantly damage the environment unconsciously. Students will understand the importance of anticipating the long-term impacts of their everyday actions and reevaluating them in the context of the climate crisis. Some actions which they can observe and change around them in this regard are as follows:

- Introducing "Meatless Mondays" or any other day of the week.
- Buying water soluble detergents, shampoos, soaps, etc. which are sustainably packaged.
- Saying NO to single-use plastic items: bottles, straws, containers.
- Take along your cups/water bottles/thermos flasks on long journeys.
- Reusing face wipes to wipe furniture etc. Buying natural makeup and skincare products.
- Taking cloth/jute bags for grocery shopping.
- Reusing kitchen water to water plants. Also, the water used to boil chickpeas can be used to knead the flour, pasta water can be added back to the sauce, etc.
- Going paperless wherever possible! Opting for e-statements for credit cards, e-bills for purchases and email correspondence. Not printing boarding cards or tickets or anything that can be managed digitally.
- Using wooden chopping boards instead of plastic ones. Using tea leaves instead of tea bags. Not buying shiny gift-wrapping paper.

### **March: Spark Your Brilliance**

Educating students about climate change is not an excuse to reinforce a falsely positive reality but to focus on student-oriented curricula where students have agency and can visualize themselves with their skills and talents as having the potential to be climate warriors in a multi-faceted problem. This month let students tackle the problem of energy conservation by following simple steps:

- Switching lights, fans, and other devices off when not in use. Unplugging gadgets such as TVs, microwaves, washing machines, etc. after use.
- Setting the AC temperature to 25 degrees. Setting all the devices to 'power saving mode.'
- Taking the help of an adult and checking the 'energy efficiency' of all the electronic items in the house.
- Discarding old electronic devices which could consume more power because of their internal wear and tear.
- Reducing dependency on electronics. Using natural techniques to stay warm (using blankets, wearing enough woollens, consuming hot liquids) in winters and cool (drinking natural coolants, opening windows, wearing light clothes) in summers. Waiting for the washing machine/dishwasher to be full before running it.

- Asking parents to invest in solar geysers and appliances that run on clean energy. Using appliances that work on reusable/rechargeable batteries.
- Reducing your digital footprint and engaging in physical activities instead.
- Not placing the fridge next to devices that radiate heat and also not keeping the fridge door open for too long.
- Asking parents to avoid pre-heating the oven and using electric kettles to heat water instead of a stove.
- Helping parents cook one-pot meals and not using all the burners of the stove simultaneously.

#### **April: Tune into Nature**

A 2022 report from the United Nations found that countries around the world are failing to live up to their commitments to fight climate change, pointing Earth toward a future marked by more intense flooding, wildfires, drought, heat waves and species extinction. Children and young in particular are feeling the effects — both physical and emotional — of a warming planet. Unfortunately for most students in the country, climate education is limited to piecemeal mentions in curricula and the fragmented efforts of individual concerned educators. This month let us make students a part of the global dialogue on climate change by recommending some useful TED talks and podcasts that talk to them in their language.

- We Need to Track the World's Water Like We Track the Weather by Sonaar Luthra is a TED talk that addresses the problem of water shortage and suggests forecasting before the world's water reservoir dries up completely.
- I – The Climate Change by Prasiddhi Singh is a TED talk by the child prodigy that urges action rather than passive listening.
- What's Hidden Under the Greenland Ice Sheet? by Kristin Poinar is a TED talk in which the glaciologist uncovers the catastrophic consequences of the rapid melting of Greenland's ice sheet and its aftermath on millions of lives.
- The Big Melt "Episode 1: The Tipping Points" from Earth Rangers/Gen-Z Media is a podcast with an immersive look into climate change over a series of episodes. The host interviews climate scientists, activists, and others to learn how they engage with climate change in their own lives.
- Tumble, Science "What to Do About Trash?" Trash is one of the biggest problems on the planet. This podcast has surprising information on the same.

Again, like with reading. Make sure you do some post-listening exercises with the kids in the form of discussions or roleplays.

#### **May: Upcycle for Awesomeness**

Upcycling is a technique in which one can repurpose old items to create something new. The environmental benefits of upcycling are massive, aside from minimising the volume of discarded materials and waste being sent to landfills each year, it also reduces the need for production using new raw materials which means a reduction in pollution, greenhouse gas emissions and a conservation or judicious use of global resources. This month let students get creative and use their old and waste items to create something entirely new. Here are some quick ideas:

- Making bird feeders using old plastic bottles, egg cartons, and containers.
- Melting soaps to make shower gels (which can be used for home cleaning).
- Melting broken crayons to make bigger/rainbow crayons in new shapes or candles.
- Planting seeds in old/broken bottles, bowls, etc.
- Redesigning an old T-shirt. Making curtains/cushion covers using old sarees/dupattas. Making shorts from an old pair of jeans.
- Creating crafts such as wind chimes, greeting cards, pen holders using paper towel rolls, wooden spoons, stones, etc.

- Making gift-wrapping paper by decorating old chart paper or newspaper.
- Creating small lamps or lanterns using tin cans or old paint cans.
- Using old cardboard boxes or shoe boxes to make coasters or pet litter spaces.
- Making wall art using small locks, keys, magnets, and pieces of jewellery that are no longer in use.

**June: Track the Tiny Drops**

This month let's focus on water conversation. Teach students the differences between direct water usage and indirect water usage and give them tips for sustainable water usage and plummeting their water footprint.

- Turning off the tap while brushing.
- Take a bath using buckets instead of showers. Using a bucket instead of a hose pipe to water plants and using reused water. Take shorter baths.
- Ask your parents to get showerheads or flow restrictors installed on taps or simply foot taps to reduce water consumption.
- Limiting the washing of clothes and utensils to only in full load or as necessary.
- Not disposing off paints, spices, medicines, and detergents down the sink.
- Ask your parents to get any leaks in taps or faucets fixed.
- Eating less processed foods and meat. Producing these foods, sugars, and coffee beans involves a lot of water and water is also needed for their packaging.
- Wearing sustainable fabrics. Producing denims for instance requires a lot of water. also, washing tough fabrics wastes water.
- Asking your parents to use eco-friendly cleaning products. Using baking soda, vinegar, and lemon to clean can help save many gallons of water every day.
- Not washing rice, dals, fruits or vegetables under running water. Reusing dropped ice cubes to water plants. Defrosting foods in the microwave instead of using running water.

**July: Turn Trash into Treasure**

Anita Rampal, former dean of the Faculty of Education at Delhi University, says that instead of relegating the topic to a separate textbook, there is a need to integrate it with existing subjects so that it runs through the entire curriculum. Climate change and related topics such as the biodiversity crisis and ecological justice are very important to understand, but they are also abstract and challenging. It's not enough to preach moral messages or give definitions. These concepts and issues need to be woven into whatever you teach.

This month impart the skill of waste management. Many households, public places, and schools in India have separate bins for dry and wet waste. But the practicable skill to be learnt this month is composting. Including students in the process would sensitize them to environmental consciousness and make their contributions tangible.

To make a magical compost, ask kids to identify waste as green and brown waste and add 50% of each type.

| What to put in a compost bin   | What not to put in a compost bin   |
|--|--|
| <ul style="list-style-type: none"> <li>• Grass, leaves, small twigs</li> <li>• Eggshells</li> <li>• Vegetable and fruit peels</li> <li>• Coffee or tea residues</li> <li>• Wood shavings/sawdust</li> <li>• Paper or cardboard (shredded)</li> </ul> | <ul style="list-style-type: none"> <li>• Any meat products</li> <li>• Dairy products</li> <li>• Animal waste</li> <li>• Diseased plants</li> <li>• Metal products</li> <li>• Charcoal</li> </ul> |

When students use this compost as a valuable resource in their gardens, they will realize the significance of their actions and make a real difference.

### **August: Decode the Challenge**

The UN has come up with 17 Sustainable Development Goals (SDGs) which should be discussed and analysed actively in the classroom. One way to integrate climate education in spaces beyond sciences and social sciences and into the way of mathematics, physics and data sciences is to get students to look at graphs, charts, and other environment-related data and interpret them as per their sensibilities. They could also be asked to collect and map their data on any one aspect related to the environment. Many tools such as Climate Reanalyzer are available online which have not only climate data but also interactive maps and a 3-D globe to create interesting learning activities.

### **September: Grow Green Dreams**

This month teach students to plant and take care of a plant and observe its growth. Here are the steps you could get them to follow:

- For water plants, such as the money plant, just add a part of the stem (with some leaves) to water and watch it bloom. Remember to change the water every 8-10 days.
- For plants that need soil, such as the tomato plant:
  - Put the compost in your pot
  - Dig a really deep hole in the pot using a stick or trowel
  - Pop your tomato plant seedling in the hole and fill it with more compost.
  - Stick a bamboo cane in the soil next to the plant so it has support as it grows, when it gets taller you can tie it gently to the cane with a string.
  - Water it well and often, tomatoes love moisture and sunlight
  - After about eight weeks you'll be able to pick your juicy tomatoes and enjoy!

### **October: Lead the Change**

An activity that is bound to solidify the importance of waste management while instilling the virtue of action in your child is organising or participating in neighbourhood clean-up drives. This month let us focus on organising at least one such drive. Teachers can organise these fairly easily in the schools. Parents can get motivated kids to do it in their neighbourhood or extend it to a beach clean-up drive if they're staying in a coastal area. The drive can also be a plantation drive to plant trees at designated points in time. These drives create immediate results with long-lasting effects. The students work together to remove garbage from designated sites, taking care that disposal of that garbage is managed responsibly. They also help instil appreciation of the community in the students' minds and encourage them to take care of their surroundings on an ongoing basis. Here is a quick clean-up checklist that students can use.

- |   |
|---|
| <ul style="list-style-type: none"><li>✓ Rubber gloves</li><li>✓ Hand sanitiser</li><li>✓ First-aid kit</li><li>✓ Garbage bags</li><li>✓ Garbage grabbers</li><li>✓ 3 garbage bins - Trash, Recyclables, Hazardous Waste</li></ul> |
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### **November: Discover and Explore**

Studies have unswervingly shown that there are positive well-being outcomes from a close connection to nature. Our relationship with nature – how much we notice, think about and appreciate our natural surroundings – is vital for forming our perspective on how we can protect and safeguard it. This month ensure that your students have lots of opportunities to spend periods of quality time outside. This could be at a local park or seaside. Support them to engage by:

- sitting quietly, using all of their senses to actively take in the world around them.
- asking them questions on how being close to nature makes them feel and what their predominant sense is.
- asking them to comment on something they find beautiful or out of place.
- encouraging them to respond to the natural world through art, poetry, dance, or music.

Apart from this, get students to find out about natural phenomena progressively. For instance, lab activities can be one of the most effective ways to show children how global warming works on an accessible scale. In science lessons, do simulations on the greenhouse effects using plastic wrap to trap the sun's heat. Or charcoal can be used to show how black carbon from air pollution can speed up the melting of ice. The idea is not to set in an 'eco-anxiety' but to open up a dialogue, help students think in the right direction, and creatively come up with solutions.

### **December: Waste Not, Want Lots**

As we reach the end of the calendar year, it is important to reinforce the 3Rs in practical ways. Students are aware of these terms in the technical textbook language. It is now time to inculcate these skills in the everyday lives of students. We have already learnt about the several ingenious ways to reuse, revamp, and repurpose or upcycle used items. This month the keyword is 'reduce'. We need to reduce our use of resources to pave the way for a greener planet.

- Recognize the differences between 'needs' and 'wants'. Buy new items only when 'needed'.
- Ask yourself how items can be used again before throwing them away. Buy durable and eco-friendly items.
- Take small portions of food and serve it without spilling.
- Take the help of an adult to store leftover food properly in the fridge. Then, learn how to repurpose old food items such as rotis to make new dishes such as wheat strips with veggies.
- Tell your parents to buy items in bulk to reduce packaging waste.
- Carry cloth napkins, your water bottle and tiffin to school.
- Minimise buying fruits and vegetables. Grow them at home as far as possible.
- Print on both sides of the paper and only when very necessary. If this is not an option, use the plain side to draw or make lists.
- Reuse rags to clean your home. Old clothes can also be reused in many ways.
- Buy second-hand furniture, if possible, otherwise, it may end up in a landfill.

Recycling is a method of creating new items from used materials or old products. Mostly, this cannot be done at home. But we can ensure the following

- Give old electronic items to e-waste collection centres.
- Make compost pits at home using kitchen waste.
- Maintain separate bins for recyclable and non-recyclable items.
- Buy items from companies that are ecologically conscious in their production and packaging. Always check their 'green credentials' before making a purchase.
- Collect rainwater for later use.

- Repair broken items instead of tossing them away.
- Donate the items which you think cannot be reused or recycled.
- Use pens with refills instead of buying new pens every week. Books can also be passed on to younger siblings or needy students after use.
- Newspapers can be recycled to make paper mâché, for covering items or as placemats.
- Flowers and leaves can be dried up and powdered to make organic colour for Holi.

Climate education helps students cultivate a culture of mindfulness as well as a sense of ownership and commitment to the climate crisis. Students across the world are pushing climate change to the foreground of global attention. A report by The Hindu says that, while 78% of young Indians feel equipped to battle climate change issues, only 60% have had a chance to participate actively in climate action. So, it is time that we leverage the power of our youth to influence future generations transmute their powerful resilience into sustainable resolve and help them innovate solutions to contest the climate challenge.