



# Summer Programme 2021

4 May - 20 June 2021



VASCSC is back with the Summer Programme. Don't miss out on your annual dose of summer fun. Enjoy the Summer Programme 2021 from the comfort and safety of your home! Material and TLM as required for the hands-on sessions will be sent to participants through courier and delivered before their batch starts. Online yet interactive, hands-on sessions and online registrations! Limited seats in each batch!



Name of Module		Timings	Level	Activities	No. of Seats	Fee ₹
Code	Start Date - End Date					
<b>Do It Yourself Science</b>		11:30 am - 1:00 pm	Std. 1 - 2	Interesting hands-on activities to understand basic scientific concepts like Sound, Heat, Static Electricity, Pressure, Lifecycle of a living being, and many more projects...	20	1100
DY-A1	18 - 21 May					
DY-A2	25 - 28 May					
<b>Explore and Learn Science</b>		4:00 - 5:30 pm	Std. 5 - 6	Fun with circuits: Squishy Circuits, Graphite Circuit, Copper tape circuits, LED Colour Piano; Learning to design an experiment: Sun Print Paper, Paper Helicopter; Engineering Challenge: Building stable structures, Question Explore Discover.	25	1100
EX-A1	18 - 21 May					
EX-A2	25 - 28 May					
EX-A3	1 - 4 Jun					
<b>Prototyping and Design Thinking</b>		4:00 - 5:30 pm	Std. 5 - 8	Understand Prototype & Design Thinking, Spatial intelligence: Visualizing spatial relationships Paper based prototyping: Structural Designs Prototyping: Security systems and detectors. <u>Note:</u> No material will be sent by VASCSC for the module. All material to be arranged by the participants, as follows: A4 paper-any color (10), chart paper-any color (1), Buzzer 5V-20V Piezoelectric / beeper alarm (1), Amplifier switch / transistor - BC547/BD139/BD140 (1), 9V battery with snapper (1), 5 mm LED (5), 1K Resistor (5), Conducting wire (1 mt), scale, pen, pencil, crayons / sketch pens, scissors.	20	500
DT-A1	4 - 7 May					
DT-A2	11 - 15 May*					
<b>Play with Light</b>		2:00 - 3:30 pm	Std. 5 - 6	Fundamental Concept of Light - Reflection, Refraction, Separation of Light, Hands on model making - Magic Coin Box, Periscope, Pinhole Camera, Optical Illusion, Experiments related to Light.	25	800
PL-A1	11 - 13 May					
PL-A2	27 - 29 May					
PL-A3	1 - 3 Jun	11:30 am - 1:00 pm				
PL-A4	8 - 10 Jun					
<b>Science Kids Zone</b>		9:30 - 11:00 am	Std. 2 - 3	Magic bus, Fish in the pot, Clap in the air, Flying fish, Whirling fan, Exploring our Solar System, Natural Energy Source - Sun, Yo-Yo, Human Anatomy, many more experiments...	20	800
SK-A1	18 - 21 May					
SK-A2	8 - 11 Jun					
<b>Science Hobby Workshop - Jr. 1</b>		11:30 am - 1:00 pm	Std. 3 - 4	Do It Yourself - Science Models & Toys: Butterfly life cycle, Thaumatrope, Pin wheel, Clap in Air, Hoop Glider, Weather Vane, Paper Top, Enjoying Maths: Number detective, Maths Puzzles, Maths Art, Understanding shapes, Tangram puzzle.	25	900
SH-A1	25 - 28 May					
SH-A2	8 - 11 Jun					
<b>Science Hobby Workshop - Jr. 2</b>		11:30 am - 1:00 pm	Std 3 - 4	Do It Yourself - Science Models and Toys: Zoetrope, Yo-Yo, Color filters, Wind wheel, Flying Fish, Wind mill, Whistle, Ecosystem and its adaptations, Understanding shapes, Egg puzzle, DIY Protractor, Maths games and puzzles.	25	900
SH-B1	18 - 21 May					
SH-B2	1 - 4 Jun					
<b>Science Hobby Workshop - Sr.</b>		4:00 - 5:30 pm	Std 5 - 6	Balloon powered toy car, Brain cap, Balancing acrobat, Minion diver, Quick multiplication, Exploring different methods of multiplication, Making Brahma's Tower and Magic squares.	25	900
SH-C1	18 - 21 May					
SH-C2	25 - 28 May					
SH-C3	1 - 4 Jun					
SH-C4	8 - 11 Jun					
<b>STEM Hands-on - Beginners</b>		11:30 am - 1:00 pm	Std 6 - 8	Make a Pinhole Camera, Visualizing solids, making 3D shapes using isometric dot paper & nets, Orthographic projection of solids, Make $(a+b+c)^2$ model, Make a Food Pyramid model, Understanding Atomic structure.	30	900
ST-A1	11 - 15 May*					
ST-A2	18 - 21 May	2:00 - 3:30 pm				
<b>STEM Hands-on - Intermediate</b>		4:00 - 5:30 pm	Std 6 - 8	Make a Lens Camera, Make Volume of Cone & Cylinder model, Understanding triangles, their congruence and similarity, Application of similar triangles, Understanding and making Pythagoras Theorem model, Make a Virus model, Understanding Molecule.	30	900
ST-B1	11 - 15 May*					
ST-B2	1 - 4 Jun	2:00 - 3:30 pm				

\*4-day batch, 14 May is holiday.

†GST extra, as applicable

Name of Module		Timings	Level	Activities	No. of Seats	Fee ₹
Code	Start Date - End Date					
<b>AERONAUTICS</b>						
<b>Aeromodelling (Beginners)</b>		11:30 am - 1:00 pm	Std. 5 - 6	Fundamentals of Aerodynamics, Making different Paper Planes with various designs.	20	900
AR-A1	18 - 21 May					
AR-A2	25 - 28 May					
AR-A3	1 - 4 Jun					
<b>Aeromodelling (Intermediate)</b>		4:00 - 5:30 pm	Std. 7 - 8	Fundamentals of Aerodynamics, Aeronautics and Aviation, Design your own cardboard-based Plane.	20	1000
AR-B1	18 - 21 May					
AR-B2	25 - 28 May					
<b>Aeromodelling (Advanced)</b>		11:30 am - 1:00 pm	Std. 9 - 10	Fundamentals of Aerodynamics, Aeronautics and Aviation, Design your own cardboard-based and balsa wood-based Plane.	20	1200
AR-C1	8 - 11 Jun					
<b>ASTRONOMY</b>						
<b>Exploring Astronomy</b>		11:30 am - 1:00 pm 4:00 - 5:30 pm 11:30 am - 1:00 pm 4:00 - 5:30 pm 11:30 am - 1:00 pm	Std. 5 - 6	Basics of Astronomy, hands-on activity of making of different type astronomy models like Moon Phases, Horizontal Sundial, Circumpolar Constellations, Pinhole Camera.	25	1000
AS-A1	11 - 15 May*					
AS-A2	18 - 21 May					
AS-A3	25 - 28 May					
AS-A4	1 - 4 Jun					
AS-A5	8 - 11 Jun					
<b>Telescope-making &amp; Understanding Night Sky</b>		4:00 - 5:30 pm 11:30 am - 1:00 pm 4:00 - 5:30 pm 11:30 am - 1:00 pm 4:00 - 5:30 pm	Std. 7 - 8	Learning night sky observation and hands-on activity of making of different types of astronomy models like Constellations at Night, Circumpolar Constellations, Paper Telescope-making.	25	1200
AS-B1	11 - 15 May*					
AS-B2	18 - 21 May					
AS-B3	25 - 28 May					
AS-B4	1 - 4 Jun					
AS-B5	8 - 11 Jun					
<b>Introduction to Stellarium</b>		11:30 am - 1:00 pm	Std. 6 - 10	Introduction to astronomical software - Stellarium, exploring the night sky, constellation, planets, etc. using this virtual planetarium.	25	500
AS-C1	22 - 23 May					
AS-C2	29 - 30 May					
AS-C3	12 - 13 Jun					
<b>BIOLOGY</b>						
<b>Little Scientist</b>		11:30 am - 1:00 pm	Std. 2 - 3	Fun with plants - Transpiration, Phototropism, Journey from seed to a plant, Inside the seeds, Find the age of a tree, What's inside your blood, Understanding different body organs, Science behind rainfall - Evaporation and condensation, Why is it important to wear mask? Know about the tiny fighters in your body.	25	1200
BO-A1	11 - 15 May*					
BO-A2	18 - 21 May					
BO-A3	25 - 28 May					
BO-A4	1 - 4 Jun					
BO-A5	8 - 11 Jun					
<b>Explore the Microscopic Structures</b>		9:30 - 11:00 am	Std. 5 - 7	Understanding the microscope, DIY microscope using smartphone, Prepare slide mounts of leaf stomata, leaf vein, different types of plant cells, animal cell, pollen grain, matters from your surrounding and observe them under the DIY microscope, Dissecting a flower. Additional Requirement: Smartphone	25	1200
BO-B1	11 - 15 May*					
BO-B2	18 - 21 May					
<b>Know your Body Systems</b>		9:30 - 11:00 am	Std. 6 - 8	Hands-on model making to learn about different human body systems: Hear your heart beat - Stethoscope model, How do we move? - Ball and socket joint model, Know your grinders - Teeth model, Understanding different bones - Skeletal system.	20	1500
BO-C1	25 - 28 May					
BO-C2	1 - 4 Jun					
BO-C3	8 - 11 Jun					
<b>CHEMISTRY</b>						
<b>Chem 4 Kids</b>		9:30 - 11:00 am	Std. 2 - 4	Introduction to lab and lab equipment, magic breath, chemical filtration, non-Newtonian fluid, writing with water, slime and many spectacular demonstrations. <u>Note:</u> Fees includes lab reagents, consumables and essential apparatus. Material for experiment - demonstrations will not be provided.	20	1100
CH-A1	11 - 15 May*					
CH-A2	18 - 21 May					
CH-A3	25 - 28 May					
CH-A4	1 - 4 Jun					
CH-A5	8 - 11 Jun					

\*4-day batch, 14 May is holiday. †GST extra, as applicable

Name of Module		Timings	Level	Activities	No. of Seats	Fee ₹
Code	Start Date - End Date					
<b>Fun with Chemistry</b>		11:30 am - 1:00 pm	Std. 5 - 7	Introduction to lab and lab equipment, paper & chalk chromatography, capillary action, density, surface tension, making of crystals and many spectacular demonstrations. Note: Fees includes lab reagents, consumables, and essential apparatus. Material for experiment - demonstrations will not be provided.	20	1100
CH-B1	11 - 15 May*					
CH-B2	18 - 21 May					
CH-B3	25 - 28 May					
CH-B4	1 - 4 Jun					
CH-B5	8 - 11 Jun					
<b>COMPUTERS</b>						
<b>Turtle Graphics</b>		2:00 - 3:30 pm	Std. 4 - 5	Interactive educational programming language for children to learn programming principles in a fun and easy way, develop logical skill with amazing shapes. Note: No material will be sent by VASCSC for this module.	25	1000
CO-A1	4 - 7 May					
CO-A2	11 - 15 May*					
CO-A3	18 - 21 May					
CO-A4	25 - 28 May					
CO-A5	1 - 4 Jun					
CO-A6	8 - 11 Jun					
<b>Android App Development for Beginners</b>		4:00 - 5:30 pm	Std. 5 - 6	Working & technical as well as creative aspects and importance of Android. Create basic android apps with full-of-joy, creativity, interaction development of new ideas. Note: No material will be sent by VASCSC for this module.	25	1000
CO-B1	4 - 7 May					
CO-B2	18 - 21 May					
CO-B3	1 - 4 Jun	11:30 am - 1:00 pm	Std. 6 - 7	Learn coding with Micro:bit, a small pocket-sized computing device that lets you get creative with digital technology. It is web based, does not require additional drivers and can be used with almost any web enabled device. Note: No material will be sent by VASCSC for this module.	25	1000
<b>Coding for Beginners</b>		11:30 am - 1:00 pm				
CO-C1	11 - 15 May*					
CO-C2	25 - 28 May					
CO-C3	8 - 11 Jun	2:00 - 3:30 pm	Std. 5 - 7	Learning fundamentals of electronics, series connection, parallel connection, dancing light, robotic snake, touch sensor, light sensor, Tinkercad - 3D designing.	20	1000
<b>Basic Electronics using Breadboard</b>		4:00 - 5:30 pm				
EL-A1	18 - 21 May					
EL-A2	25 - 28 May					
EL-A3	1 - 4 Jun					
EL-A4	8 - 11 Jun	2:00 - 3:30 pm	Std. 7 & 8	Basics of electronics, component identification, how to simulate circuits on Tinkercad, use of Multimeter, use of breadboard, make your own Buzz Wire Game and Automatic Night Lamp.	25	1100
<b>Electronics World</b>						
EL-B1	11 - 15 May*					
EL-B2	18 - 21 May					
EL-B3	25 - 28 May					
EL-B4	1 - 4 Jun					
EL-B5	8 - 11 Jun					
<b>INNOVATION</b>						
<b>Learning Arduino for Beginners</b>		2:00 - 3:30 pm	Std. 7 - 8	Learning basics of Arduino and its applications using switch, LDR, RGB LED, potentiometer etc. 3D designing using Tinkercad.	25	1200
IN-A1	11 - 15 May*					
IN-A2	18 - 21 May					
IN-A3	25 - 28 May					
IN-A4	1 - 4 Jun					
IN-A5	8 - 11 Jun					
<b>Smart Automation - IoT (Wi-Fi based)</b>		11:30 am - 1:00 pm	Std. 7 - 10	Built own DIY home and apply automation using PIR sensor, Gas sensor, controlling lights and fan using relays with your mobile using blynk.	20	3500
IN-B1	18 - 21 May					
IN-B2	1 - 4 Jun	11:30 am - 1:00 pm	Std. 7 - 10	Built own DIY home and apply automation using PIR sensor, Gas sensor, controlling lights & fan using relays, making your own android app, controlling gadgets using Google Assistant.	20	4000
<b>Smart Automation - Advanced IoT</b>						
IN-C1	11 - 15 May*					
IN-C2	25 - 28 May					
IN-C3	8 - 11 Jun	9:30 - 11:00 am	Std. 6 - 8	Introduction to AI and Programming language, Command your virtual assistant, AI chatbot, Emotion recognition, AI games, AI drawing, Video streaming music.	25	1200
<b>Block level AI for Kids</b>						
IN-D1	4 - 9 May					
IN-D2	18 - 23 May					
IN-D3	25 - 30 May					
IN-D4	1 - 6 Jun					
IN-D5	8 - 13 Jun					

\*4-day batch, 14 May is holiday. †GST extra, as applicable

Name of Module		Timings	Level	Activities	No. of Seats	Fee ₹
Code	Start Date - End Date					
<b>GenNEXT Tinkering Workshop</b>		4:00 - 5:30 pm	Std. 8 - 10	Design various gadgets, applications of various sensors using different controller boards, interfacing of wireless modules with 10+ projects. 14-day module, conducted on Saturdays and Sundays only. Session dates are: May: 8, 9, 15, 16, 22, 23, 29, 30 Jun: 5, 6, 12, 13, 19, 20	10	12000
IN-E1	1 May - 20 Jun (Sat-Sun)					
<b>MATHEMATICS</b>						
<b>A Splash of Mathematics</b>		11:30 am - 1:00 pm	Std. 3 - 4	Symmetry in use, Shhh! I am at work (3D Shapes), Numbers are my friends (Number puzzles), Mathematical Games (Parking Puzzle).	30	1000
MA-A1	11 - 15 May*					
MA-A2	18 - 21 May					
MA-A3	25 - 28 May					
<b>Hurray!! For Math</b>		4:00 - 5:30 pm	Std. 5 - 6	Seven Pieces Many Faces (Tangram), Shape it up (3D Shapes), Hey is it from a paper? Mathematical games and puzzles.	30	1000
MA-B1	11 - 15 May*					
MA-B2	18 - 21 May					
MA-B3	25 - 28 May					
MA-B4	1 - 4 Jun					
MA-B5	8 - 11 Jun					
<b>Fun with Maths</b>		11:30 am - 1:00 pm	Std. 7 - 8	Sections of a solid, Mathematical Envelope (2D), Calculation using Vedic Maths sutras, Unicursal Design and Topological Puzzle.	30	1000
MA-C1	1 - 4 Jun					
MA-C2	8 - 11 Jun					
<b>MODEL ROCKETRY</b>						
<b>Satellite Design</b>		11:30 am - 1:00 pm	Std. 8 - 9	To understand & construct Remote Sensing and Communication Satellite & their major body parts. <u>Note:</u> No material will be sent by VASCSC for this module. All material to be arranged by the participant, as follows: Chart paper A2 size (60 cm x 41 cm approx.), rounder, cello tape, glue (fevicol), toothpicks (10), pushpins (10), scale, pen/pencil.	20	500
MR-A1	4 - 7 May					
MR-A2	11 - 15 May*					
<b>Model Rocketry</b>		4:00 - 5:30 pm	Std. 5 - 6	Basics of model rocketry and satellite communication, Fabrication and launching of model rocket, Know about different types of model rockets.	20	900
MR-B1	1 - 4 Jun					
MR-B2	8 - 11 Jun					
<b>NANOTECHNOLOGY</b>						
<b>Super Strong Science: Nanotechnology</b>		9:30 - 11:00 am	Std. 3 - 5	Fold, roll and stack your way to Super-Strong Materials, Small things behave differently, Design & develop your own nanoball, Make your own nanomaterials, Super quick encapsulation.	20	1000
NT-A1	18 - 21 May					
<b>Nano Cosmos: Small Wonders!</b>		9:30 - 11:00 am	Std. 6 - 8	Structural Design - a way to Super-Strong Materials, Engineer your own smart material, Design and develop your C <sub>60</sub> , Supramolecules - Casein micelles, Super, quick and transparent encapsulation.	20	1200
NT-B1	25 - 28 May					
<b>Nanotechnology &amp; Nanoengineering</b>		2:00 - 3:30 pm	Std. 9 - 11	Why Material Matters - Structural Approach, Engineer your own smart material, Design and develop your C <sub>60</sub> /C <sub>70</sub> /B <sub>30</sub> , Supramolecular Assembly - Micelles, Encapsulation - incorporate your interest material into cage of atoms.	15	1200
NT-C1	18 - 21 May					
<b>PHYSICS</b>						
<b>Fun with Physics - Jr.</b>		11:30 am - 1:00 pm	Std. 5 - 6	Fundamental concepts of Physics such as Sound, Light, Motion and hands-on model making - Toing-froing car, Hovercraft, Air rotor, etc.	25	1000
PH-A1	11 - 15 May*					
PH-A2	25 - 28 May					
PH-A3	8 - 11 Jun					
<b>Fun with Physics - Sr.</b>		11:30 am - 1:00 pm	Std. 7 - 9	Advanced concepts of Physics such as Force, Laws of Motion, Light, Waves, Magnetism and hands-on model making - Mobile Projector, VR box, Magnetic levitation, etc.	25	1000
PH-B1	18 - 21 May					
PH-B2	1 - 4 Jun					

\*4-day batch, 14 May is holiday.

†GST extra, as applicable



## Vikram A Sarabhai Community Science Centre

(VAS CSC) is a pioneering institution in the field of science education, founded by Dr. Vikram Sarabhai in 1966. Its mandate is to stimulate interest, encourage, and expose the principles of science and scientific method to the community and also improve and innovate various areas of science education. VAS CSC has well-equipped laboratories in Biology, Chemistry, Physics, Mathematics, Electronics, Computers, Astronomy and Model Rocketry as well as Innovation Hub, Workshop, Library and Science Playground. It is open to everyone interested in exploring science and technology.

### Please note

1. Participants will need laptop/PC/smartphone and consistent internet connection.
2. Sessions will be conducted using online platform (Microsoft Teams/Google Meet).
3. Sessions are activity and lecture-demonstration based.
4. Material and TLM as required for sessions, will be sent by courier to participants at their given address, to be delivered before their batch starting date.
5. For some modules, additional material to be arranged by participants. Refer module details for specifics.
6. Basic stationery like notebook, pencil, pen, eraser, sharpener, scale, scissors, fevicol, sketch pens, etc. as may be required, to be arranged by participants.
7. For sessions requiring material to be couriered, admission will close around 10 days before the batch start date so that materials reach the participants on time.
8. Admission and fee payment process is online.
9. Level mentioned indicates the standard to which student will go to after summer vacation. Apply accordingly.
10. The programme activities and schedule are subject to change without prior notice.
11. GST shall be extra, as applicable, over and above the fee mentioned.
12. The fee, once paid, is non-transferable and non-refundable.
13. Fee Refund Policy : In exceptional cases of cancellation, 10% of the fee amount, subject to a minimum of Rs. 100/-, will be deducted. No refund for cancellations within 10 days before start date of the batch or after the material is dispatched, as applicable.
14. After admission, any change in batch will not be possible. Please check receipt for details like batch, timings, standard, etc. at the time of admission. VAS CSC shall not be responsible for any discrepancy or error.
15. Participants will need to keep their receipts with them during the programme.
16. E-certificates will be awarded to participants based on regular attendance.

Register and pay fees online on

<https://scienceshop.vascsc.org/product-category/online-courses/summer-programme/>



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