PADMA SESHADRI BALA BHAVAN K.K.NAGAR
(Affiliated to CBSE, New Delhi)

CHAITANYA VIGYANAM 2019

~ COSMIC INTELLIGENCE THROUGH SCIENCE

RULE BOOK

GENERAL INSTRUCTIONS

- Registrations must be done online ONLY.
- Registrations will close 48 hours prior to the day of Science Fest '19.
- Registration will be done on a first come first served basis for specific events due to limitation on the number of participants / teams.
- Portal for registration : https://www.chaitanyavigyanam.in
- Participants must be accompanied by a teacher from their school. The accompanying teacher must stay till the participants from the school have completed their respective events.
- Participants MUST bring their school ID cards and bonafide certificates.
- The use of vernacular languages is strictly discouraged.
- Vulgarity in any form will NOT be encouraged.
- The decision of the judges is final and binding.
- Only students of class 10, 11, and 12 are allowed to participate in the Science Fest.
- Participants should be available at the respective venue half an hour prior to their event.
- Mobile phones should not be used in the school campus.

SCIZAP
(ADZAP)

9:30 am – 11:30 am

Dr.(Mrs.)YGP Auditorium

No of participants per team 4 – 6 (One team / school)
Maximum: 15 Teams

RULES

1. Judges will give each team a certain product to advertise.
2. Teams are given 5 minutes for preparation, 3 minutes to present their advertisement.
   (which may be subjected to Questions from the panels)
3. Teams are expected to enhance scientific facts, display wit , humour and show originality & creativity in their approach.
4. Use of vernacular languages will not be entertained.
5. Any form of vulgarity will lead to immediate disqualification.

TECH TALK
(CONCEPT TEACHING)

TECH

🕐 12:00 noon – 2:00 pm

📍 Dr.(Mrs.)YGP Auditorium

Team of two students (One team / school)
Maximum: 12 Teams

EVENT DESCRIPTION:

Tech Talk is an event similar to the renowned and prestigious Ted Talk . They serve as a formidable platform for thinkers from all over the world to present their knowledge about a topic to educate billions of people, in an effort to increase awareness, and make the world, smarter and better.

TEch

RULES:
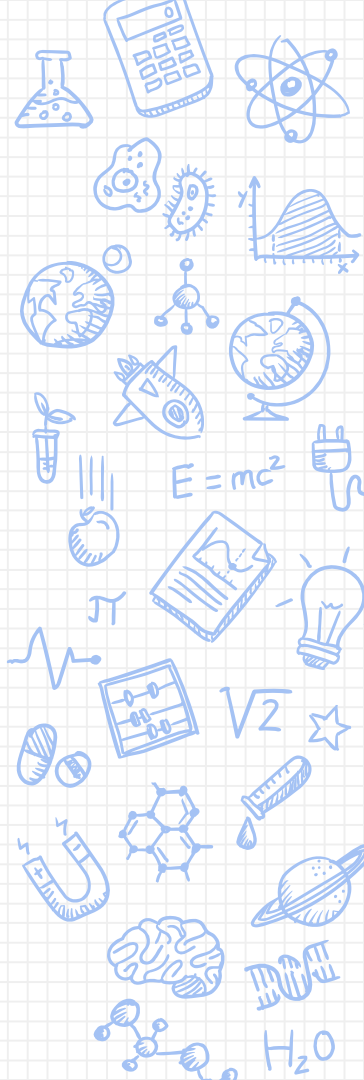
- Choose a topic to explain from the list given by the school on the theme, 'Space'.
- Explain the topic in a fun, engaging and educative manner to the audience (XI and XII students).
- You may present the topic innovatively even in the form of a
     1) Skit 2) Dialogue 3) Poem 4) Story 5) Drama
- Teams must present their concept in 6 minutes.
- Following the presentation, there will be a bonus round for every team where a hypothetical scenario based on the topic presented is given to the team and they are expected to deliver a short 1-1.5-minute talk on the scenario, its repercussions and relevant applications/implications.
- Usage of any electronic devices is not allowed. Students can use chalk and board to present. Simple models using everyday materials can be used.
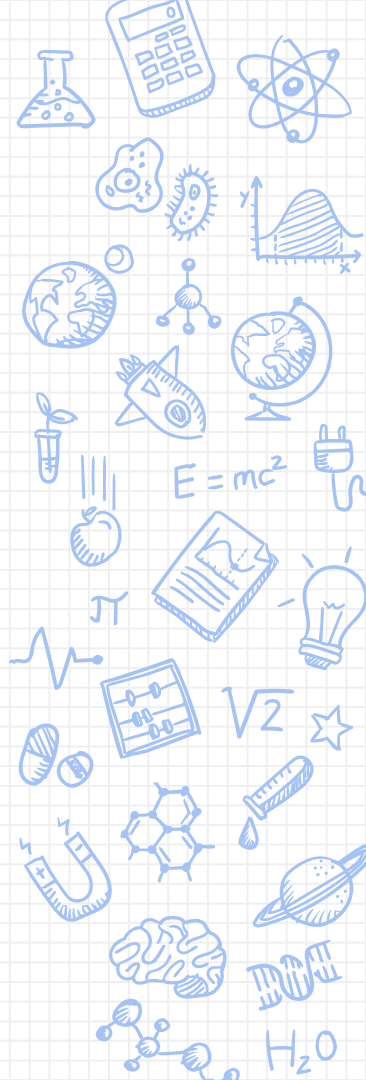
TECH
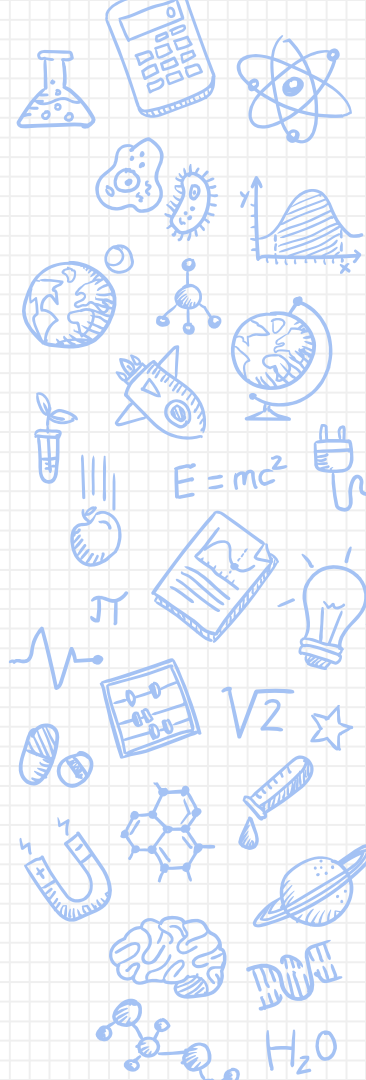
REQUIREMENTS:

Prior to registration, teams are required to prepare a short 200-250-word summary on the topic they have chosen. They must submit the outline of their presentation scheme, content and how they plan to expound on the concept while registering.

JUDGING RUBRICS:

Content
Communication (clarity of concept and delivery)
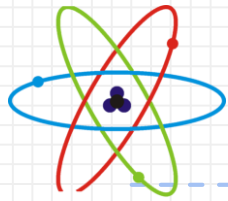Creativity

TECH

TOPICS FOR TECH TALK

- *Skywalker Saga: Science in Star Trek and Star Wars*

- *SETIchnology: Exploring the Tech behind SETI*

- *MOM: A Martian Story*

- *Work of NOBEL Laureates on space science*

- *The Big Bang Theory: Origin Story*

- *Dark Matter*

- *The Information Paradox*

TECH

- *Life In Space*

- *Chandrayaan and Beresheet*

- *Dyson sphere*

- *Satellites and orbits*

- *Galaxy bursts*

SCIGNITE
(SCIENTIFIC QUESTER)

9:30 am – 2:30 pm

Silver Jubilee Hall & BIOLAB

Maximum: 12 Teams

GENERAL RULES:
- *Two members in a team (One team / school)*
- *First twelve registered teams are only eligible*
- *All materials required for the event will be provided at the venue*
- *Event consists of four rounds–two preliminary and two final rounds*
- *Eight teams will be shortlisted at the end of the first round*
- *4 teams will be selected for the finals from the second round*
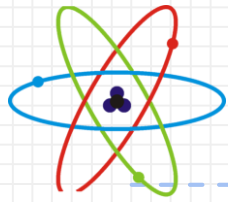
RULES:

-     Round 1 (Pick and speak): In 3 minutes, one must speak about concepts/application of Physics, Chemistry, or Biology for the given object
-     Round 2 (Physics in toys): In 2 minutes, the participant is expected to explain the physics behind the working of a toy
-     Round 3 (Imagine, Inspect, Infer): Buzzer round
-     Round 4 (Best out of waste): Participants will have to make something useful out of the given materials.

WHAT'S THE GOOD WORD
(TABOO)
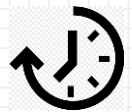
TABOO

🕐 1:00 pm – 2:30 pm

📍 Silver Jubilee Hall

No of participants per team: 3

Maximum: 10 Teams (Maximum 1 team per school)

RULES :

1. Each participant will be given a set of words to make his team members guess.

2. Each word has a set of "taboo" words that must not be used by the player.

3. If any taboo word is used, the team will be disqualified for that round

4. Time limit given for a team is 2 minutes.

5. Each word correctly guessed carries 2 marks.

6. The event consists of 4 rounds in total.

PERSPECTIVES
AUTO CAD – 2D DESIGN COMPETITION

9:30 am – 11:00 am

COMPUTER SCIENCE LAB

Individual Event

Maximum: 15 Schools

RULES :

1. The participant will have to use AutoCAD software (any version) to design in 2D, an object of given specifications.

2. This is an individual activity.

3. Duration of the activity is 60 minutes.

4. Viva voice/ Increase in complexity of design will be conducted in case of a tie.
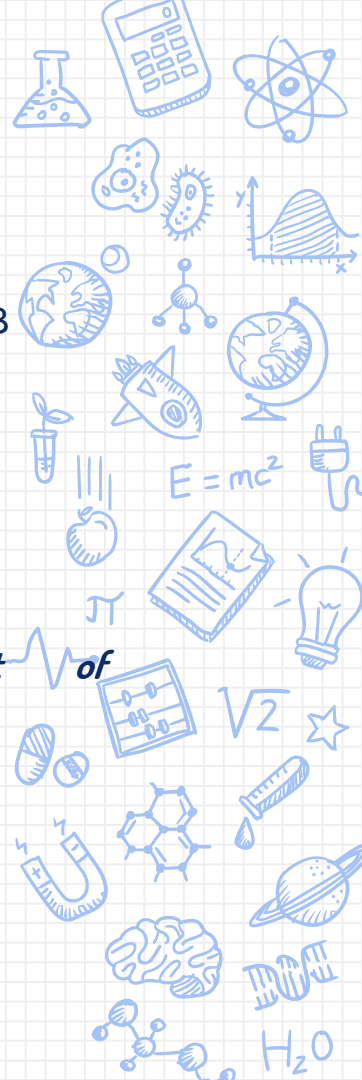
5. The participants need to bring their own laptop with AutoCAD Software loaded.

6. Possession of Cell phones, internet access or Tutorials will lead to disqualification on the spot

7. Assessment will be based on the accuracy of the representation of the dimensions.
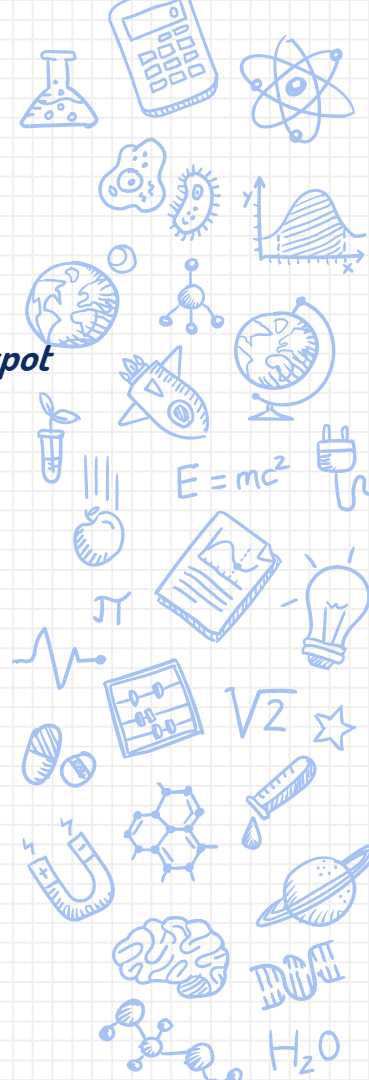
GREEN EYE
(BIO DETECTIVES)

🕙 10:00 am – 12:00 noon   📍 BIOLOGY LAB

Number of students per team : 02 (One team / school)

Maximum: 12 Teams

RULES :

1. Participants must have knowledge of common plants and floral formula.

2. Rating will be based on Identification, Description and knowledge of plants.
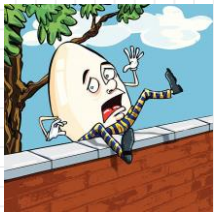
3. Participants will not be allowed to use any electronic resources.

4. Total time to complete identification : 10 min.

EggXCalibre
(Stem Activity)

9:30 am – 02:00 pm

STILT AREA AND ROOMS 4, 5, 6

Maximum: 12 Teams (One team / school)

Maximum of 2 students per team

The contestants shall design and build a shipping container that will prevent an uncooked chicken egg from breaking when dropped from an initial height of about 10ft. The team's device which keeps the egg intact and obtains a score among the top 6 teams qualify for the finals(2nd round).
In the second round, the eggs will be taken to be dropped from a height of about 20 ft . Preparation and building time of 30 minutes and 45 minutes will be given before the 1st and 2nd round respectively. Contestants will be allowed to place the egg in the container , drop it and remove it to examine for any cracks/breaks.

MATERIALS:

- Contestants must bring their own materials.
- The following materials are not allowed in the design:
  - A. Packing peanuts /popcorn
  - B. Metals (except for conjunction items such as screws, staples, paperclips, glass, chemical containers and thick wood]
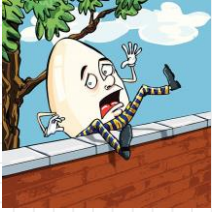
DESIGN AND CONTEST RULES:

- No kits or pre-made designs may be used. The structure must be the individual's invention.
- The structure must be completely released (no strings or other attachments).
- Parachutes are allowed. (Remember, we can't control the winds)
- No propulsion/pyrotechnic /electronic systems will be allowed.
- Volume will be calculated based on external dimensions (air volume/space will not be subtracted out). Exceptions will be made only for designs using straws.
- The dimensions must not exceed 25 cm x 25 cm x 25 cm.
- The device must not exceed 1000g in weight.
- Assistance will be provided to place the eggs in place but the teams are responsible for their devices and must drop the device by themselves.
- Eggs will be supplied at the competition to ensure uniformity.

JUDGING AND SCORING:

All containers will be inspected by judges before they are dropped.

The score will be based on the following equation:

Where: SFinal= (75S/(W+L+V+T))+ points for design and explanation.

 S = the success factor with values equal:

S = 100 :if egg does not break upon drop;

 S=1 :if egg breaks upon drop

 W = weight of container with egg (grams)(cannot exceed 1,000 grams).   L = Longest dimension (cm) (no dimension longer than 25cm). V-Volume (cm3) T-Time taken to fall in seconds

     SFinal = total points

The judges will give their marks based on the following:

a. Creativity and Engineering Practice: Most points are awarded to the device which demonstrates the most creative design solution, the greatest knowledge of physical sciences, and the greatest craftsmanship.

b. Durability of the Device: Most points are awarded to the device with the least damage by the end.

c. Build quality and appearance of the device based on judges' discretion.

d. Ability to provide explanations, discuss, and debate why the design was chosen and serves as a best egg drop device from a Physics standpoint.

THE DA VINCI CODE
(TREASURE HUNT)

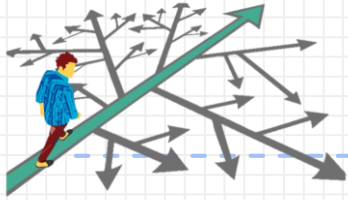10:00 am – 1:00 pm   SCHOOL CAMPUS

No of participants per team :3   (One team / school)

Maximum number of teams – 10

RULES :

1. Only the first 10 registrations will be accepted.

2. The organizer's decision is final.

3. Each team will be given a total of 10 clues.

4. The teams must assemble in the Chemistry lab by 9:30 am , to get their first clue.

5. Each team will have only 2 hints.

7. The teammates must always stay together for the entire game under any circumstances.

8. The final clue shall crack the Da Vinci Code and the team will be declared the winner of the event.

9. In case of any tie, the team with the maximum clues in least time will be declared the winner.

10. The organizers will not be responsible for any loss of belongings.

WEAVE A VERSE
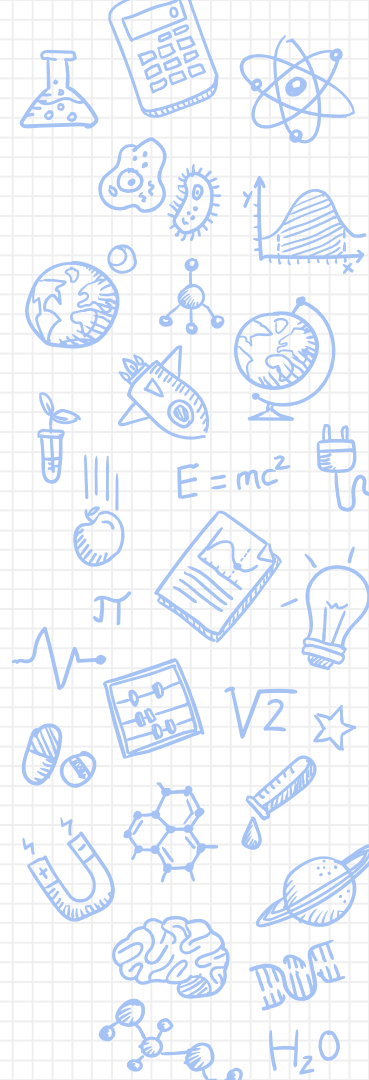## POETRY WRITING

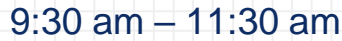🕘 9:30 am – 11:30 am   📍 ROOM 1

Individual Event

Maximum: 19 Schools

RULES :

1. *Poetry can be written in any poetic style.*

2. *Should be the original work of the participant*

3. *Topics will be given on the spot*

4. *Maximum lines – 16*

5. *Those who exceed the time limit will be disqualified.*

6. *Time limit – 1 hour*

FIRELESS FIESTA
(COOKING WITHOUT FIRE)

🕐 9:30 am – 11:30 am   📍 ROOM 2 AND 3

A team of two participants per school

Maximum: 19 Teams

RULES :

1. Dishes to be presented -   SANDWICHES/ CHAAT/ SALAD/ RAITHA/ DESSERT.

2. Participants must bring their own ingredients and utensils.

3.   All preparations to be done at the venue only.

4. Electrical appliances and pre-cooked food not allowed.

5. Duration 2 hours– for preparation and presentation.

VYAGYACITRA
(DOODLING & CARTOON)

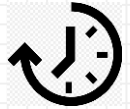12:00 noon – 1:30 pm

ROOM 1 & 2

Individual Event
Maximum: 19 Schools

RULES :

1. A4 sheet will be provided at the venue. Rest of the required items for Scientific doodling to be carried by the students.

2. Topics will be given on the spot.

3. Duration is 1 hour.

4. Decision of the judges is final.

FOLDSCOPE CORNER
(WORKSHOP)

🕙 10:00 am - 2:00 pm   📍 Bio-Tech Lab

2 participants per School
Maximum: 19 Teams

Schools are requested to send 2 students for hands on experience with foldscope and a demonstration by :
Dr. Veena Gayathri, (Professor, Dept. of Biotechnology, Stella Maris College, Chennai) .

The Foldscope is an ultra-affordable, paper microscope. Designed to be extremely portable, durable, and to give optical quality similar to conventional research microscopes (magnification of 140X and 2 micron resolution), the foldscope brings hands-on microscopy to new places!

Event Schedule

Event	Time	Venue	Max Teams
Adzap	09:30 am to 11:30 am	YGP Auditorium	15
Concept Teaching	12:00 noon to 2:00 pm	YGP Auditorium	12
Scientific Quester	9:30 am to 12:30 pm 1.00 pm – 2.30 pm	Silver Jubilee Hall Bio Lab	12
Taboo	1:00 pm to 2:30 pm	Silver Jubilee Hall	10
CAD	9:30 am to 11:00 am	Computer Science Lab	15

Event Schedule

Event	Time	Venue	Max Teams
Bio Detectives	10:00 am to 12 noon	Biology Lab	12
Stem Activity	9:30 am to 2:00 pm	Stilt Area & Rooms 4,5,6	12
Treasure Hunt	10:00 am to 1:00 pm	School Campus	10
Poetry Writing	9:30 am to 11:30 am	Room 1	9
Cooking without Fire	9:30 am to 11:30 am	Rooms 2,3	19
Scientific Doodling	12 noon to 1:30 pm	Rooms 1 & 2	19
Foldscope Corner	10:00 am – 2.00pm	Bio-tech Lab	19