# Aaruush Young Minds

**Vision:**

To expand the boundaries of Aaruush and include the major change-makers, the future-makers of our nation: the students into it. To increase the technicality and quality of Aaruush by making it a technological trailblazer by including all age groups in its audience. To provide a platform to the young minds to interact, influence and impact the society and its issues, in general.

**Aim**:

To bring all school oriented events of Aaruush under one umbrella of Aaruush: Aaruush Young Minds and to successfully conduct it all across India in various schools thereby publicising Aaruush to the future generation.

**Events:**

Aaruush Young Minds will majorly consist of five events namely:

1. Swastika Quiz
2. Coding Pundits
3. Debate Competition
4. Science Exhibition
5. Workshops
6. Challenges

**Event Structure:**

**1. Swastika**

A national level school student competition held for the students of class 9-12. It consists of rounds and competitions that are highly interactive, informative and fun. The students will appear in teams from their respective schools to our campus after clearing the first round in their respective schools. We are planning to target residential school also. Publicity by official mails will also take place.

About quiz

The quiz has basically two phases. Phase 1 consists of only Round 1 which will happen in their respective schools. All other rounds come under phase 2 and will happen in our campus.

What’s new?

Considering the success of Swastika last year, Swastika has become more known to the target audience. For Swastika v8, another event under the same can be introduced i.e. a national level spelling competition in which the English vocabulary of the students will be tested with respect to English words. This will consist of two rounds and both will happen in our campus itself.

Rounds for quiz competition:

The following are the conduction of rounds:

**Round 1 -**

* The first round will consist of a pen and paper MCQs based quiz.
* This round will take place in their respective schools after confirmations.
* The schools are supposed to send the number of participations along with the confirmations.
* The number of question papers required according to the no. of students will be mailed to the respective schools.
* After the conformations for the schools outside Tamil Nadu are received by June end, the question paper will be mailed to them in the 2nd week and 3rd week of July according to the reopening of schools.
* This round for the schools outside Tamil Nadu will be done as quick as possible since the participants might have to book tickets for travel to attend the subsequent rounds.
* The schools will be asked to mail back the question papers by end of July and they will be corrected immediately.
* The first round for schools in Tamil Nadu, after confirmations, will happen in the last week of July.
* Call backs and announcements of the qualifying students for the schools outside TN will be done on the 1st of August.
* For schools in TN, the question papers will be corrected in the 1st week of August and the schools will be informed about the qualifying students in the same week. If CTs are happening parallelly, by second week maximum, it’ll be completed.

**Round 2 -**

* This is the In-campus round which consists of multiple subsequent rounds and will happen in the last week of August. (around 25th August)

Round 2.1: Shooter Quiz

All teams will be asked a question and the time given will be 10 seconds.

Each correct answer is valued at 5 points.

If the question remains unanswered, then it will be passed on to the next team as bonus question worth 2 points.  
This round will go about twice. 30 teams shall qualify for the next round.

Round 2.2: Audio-Visual

In this round various audios, videos and images will be displayed in front of the students and they will have to guess/give the correct answer which will buy them points.

Every right answer gives the team 5 points and every wrong answers results in deduction in score by 1 point. If the question is remained unanswered then no point is awarded and rolling over or passing of the question to take place.  
20 teams will qualify for the next round.

Round 2.3: Boost Round

This round is a chance for the teams to catch up to the leader board table. This round award +10 points for each correct answer and -5 for every wrong answer. No carry forward of question to take place.

The teams have to choose out of 3 following boosts-

* Expert Advice- The team can take help of their mentor/teacher accompanying them. The expert can guide/ interact with them only for just 15 seconds.
* Double Trouble - Prior to a question being asked, a team/participant may choose to double the points on offer. However, if the answer they provide is wrong, there would be a penalty in the form of negative marks (-10). A total time of 20 seconds is given to guess the correct answer.
* Clues- A small hint will be given to the teams. They have to guess the correct answer under 10 seconds after the clue is given.  
  Only 10 teams qualify for the final rounds.

**Filler event:**

These events are stress busters and will be before the announcements of the qualifying students for the final rounds. This is to engage the crowd a bit and also give a chance for the eliminating teams to stay in the game for a while and have fun before leaving.

A few rounds of hangman can be played in this round where every team will be given a chance to guess the letters of a word with missing alphabets.  
  
  
**Final** **Round:**

Infinite Pounce:

If there are 10 teams and the question is to team 1, the quiz master gives 10 seconds after the question is asked for "pouncing". All teams except team 1 are eligible to "pounce". Team 1, while answering only has to give the answer verbally.

The teams "pounce" by writing the answer on a piece of paper and raise their hand for showing it to the quiz master. This makes them unable to answer if the question is passed. The pounce has negative scoring which means that they will get a negative if they don't give the right answer.

Thus, if the question is to team 1 and team 5 pounces, team 5 writes the answer on a piece of paper. The first team that raises their hands gets the chance to pounce on that question. The question is then verified by the quiz master and passed along and team 5 will not be asked it’s own question, but will be allowed to pounce on others’ questions as usual. So if team 4’s question is asked, team 6 will be asked next. Team 5 gets points for the pounce but won’t be asked a question in that round.

Points:

+10 for right answer. (Own or pounced)

-5 for wrong answer. (If pounced)

* Buzzer round: This is the final round. This round will be a buzzer round where each of the qualifying team will be given a buzzer. General questions that work up an individual's memory, current knowledge and stress management skills will be posted in this event. The first team to ring the buzzer will be allowed to answer first. Every right answer award 5 points and wrong answer deducts 5 points.

Points:

+10 for right answer.

-10 for wrong answer.  
  
The team with the highest points will be awarded as the “Winner” followed by the team with second-highest as “Runner-Up”.

**2. Coding Pundits**

Round 1: Pen & Paper Based

1) This will be a pen and paper round which will happen in their respective schools.

2) A code segment will be given to each participant along with its expected output.

3) The participant will be required to modify the code segment according to their knowledge so as to get the expected output.

4) The clause is that they will not be allowed to compile the code at any given point of time.

5) They will be expected to complete the task within a time limit.

6) Judging criteria would include -

*Positive points* awarded for:

->Correctness of each change made.

-> Number of correct changes made.

*Negative points* for:

-> Number of incorrect changes made.

-> Level of incorrectness.

Round 2: Pair Programming

1) All the people who qualify for round 2 will be grouped into pairs by us.

2) The round will be subdivided into 2, where in each division one member in the pair will be coding and the other debugging.

3) They will be judged individually, as one person will be monitoring every pair at all times.

4) They will be required to write a code that satisfies the problem statement within a time limit.

5) Judging criteria would include –

*Positive points* awarded for:

->Correctness of code.

-> Indentation and presentation.

-> Time taken to run the code.

-> Number of bugs corrected.

*Negative points* for:

-> Number of bugs remained uncorrected (if any, will effect in points being subtracted from the debuggers total).

Round 3: Debug-State-Code

1) A code of minimum 100-150 lines will be given to the individual, along with errors.

2) They would be required to debug the code and mark what changes have been made. They cannot compile the code while doing this.

3) Once they submit a list of the errors and corrections, they will be allowed to type and execute their code.

4) Looking at the output, they would be required to frame a detailed problem statement for their respective codes.

5) Then, the problem statements framed by them will be swapped among the participants, and under the clock they would be required to frame working codes for the same.

6) Judging criteria would include -

Positive points awarded for:

-> Well-made problem statements.

-> Fastest debugging.

-> Fastest coding.

Negative points for:

-> Incorrect problem statements.

-> Number of errors left without debugging.

**3. Debate Competition:**

The national level debate not only will provide a chance to the young minds to put forth their opinion but also will provide them with necessary exposure to boost up their confidence and knowledge. It will not only help them but publicize Aaruush too in various schools thereby connecting to more sects of the society.

The event proceedings are fairly divided into two sections:

**Pre-Event: Prelims**

During the publicity, two ways by which we can choose the finalists:

1. **Higher Authorities of the School**: The higher authorities may provide us with the names of its best and competitive students for the competition.
2. **Telephonic Interviews**: In case of no names provided, students can fill up the form from the registration link and the competitive ones will be called for a telephonic interview.

After the selection of the participants, 1 month prior to the event, a document will be sent to them containing the rules and regulations of the competition along with their debate topic and their stand on it.

**Main Event:**

A team can participate with 2/3 members. The procedure goes as follows:

|  |  |
| --- | --- |
| Member | Time Duration |
| T1M1 | 2 min |
| T2M1 | 2 min |
| T1M2 | 2 min |
| T2M2 | 2 min |
| T1M3 | 1 min |
| T2M3 | 1 min |
| Intra-Panel Discussion | 2 min |
| Judges Cross questions | 3 min |
| Total | 15 min |

The first two members of a team will be constructive speakers where they will speak and extend their arguments. The third member of both the teams will raise Point of Order with respect to the facts and figures used by the opponent team. The most valid points gain the highest of marks.

Positions awarded:

1. Winner team
2. Runner up
3. Best speaker

The winner team will be selected on the basis of total marks gained by a team.

The best speaker is the participant with the highest marks.

**Judging Criteria:**

1. Content
2. Preparation
3. Argumentation
4. Presentation
5. Facts & Figures
6. Use of Cross-examination & rebuttal
7. Validity of Answers
8. Time limit

**4. Science Exhibition:**

This event focuses on raising the technicality of not only Aaruush but also of our future torch-bearers. This event highlights the need to push your barriers and to bring forth innovations that can help the society.

The theme of the projects will be announced beforehand with the calling of abstracts and reports. The teams will come and exhibit their projects in front of a panel of experts. The most innovative project wins.

The event is divided into two sections:

**Prelims:**

The teams have to submit an abstract of their project. A sample abstract and content index will be provided to them beforehand, to maintain uniformity in submissions.

The selected participants will then be informed so that they can start with their project.

**Main:**

It can be done in two ways:

**Video Calling**: Any team which is out of 300km radius in and around Chennai will be given the option of both coming here and physically presenting or they can present their model via video calling. Guidelines regarding it will be provided in a separate document.

Teams presenting their models on video calls have to give a detailed report of their project for which they will be given a sample format.

**Physical Exhibition**: It is mandatory for all the teams which are present within 300km radius in and around Chennai. They have to come here on the event day and present their model.

Teams physically exhibiting their models have to submit a presentation for which relevant details like number of slides and format will be provided beforehand.

**Event Timeline:**

July 1: Calling of abstracts

July 15: Deadline for the abstracts

July 20: Announcement of finalists

August 10: Submission of presentation/ report

August 25: Science Exhibition

**Judging Criteria:**

1. Creativity & Imagination
2. Originality & Innovation
3. Principle
4. Technical Skill
5. Utility
6. Economic Aspect
7. Portability & Durability
8. Presentation

**5. Workshops:**

**Objective:**

To provide opportunities for school students for enhancing their competitive skills and knowledge.

To increase the outreach of Aaruush in every aspect possible.

**Tentative dates:**

* Odd semester of 2019-2020 academic session.

**Target School Classes:**

* For Basics School Workshops: 8th to 12th standards.
* For Advanced School Workshops: 11th to 12th standards.

**Plan of Action:**

* 2-3 workshops to be conducted in odd semester (in the month of July-October 2019)

These Workshops will be organized solely by Workshops Committee, which will conduct three individual workshops, in three different cities and more if time permits.

* Workshops will be conducted by Team Envision, Public Relations or any tech-teams of SRMIST.
* School students will be informed in prior about the workshops as they have to pay a registration amount ranging from Rs. 50 to 200 /-
* After the completion of a workshop in a particular school, a follow-up quiz will be conducted regarding the topics covered in the workshop and the winners will be rewarded with a merit certificate or any other kind of prize (medal, trophy).
* Also, students who are tech geeks and have skills to develop something innovative will be provided an opportunity to work with team Envision of Aaruush.

**Need for conduction of this workshop:**

* To expand the reach of Aaruush, by including school students in the fest activities.
* School students will be able to visualize and manifest their interests with the help of these workshops.
* If schools appreciate our effort and it will be beneficial for Aaruush in its further endeavors.

**Long term:**

* During the even semester we will able to indulge students only from 11thgrade because of the exams of 10th and 12th grade, but if our planning is long term or just for the odd semester, we will be able to attract fresh bunch of students from 10th and 12th grades and also the ones who’re going to give their board exams.
* If the footfall in the workshops being conducted is stupendous then we can take the idea forward to further cities of India, mostly second and third tier cities.

**Pros and Cons:**

**Pros:**

* It will be beneficial for ‘Swastika’ publicity as the outreach increases.
* It will beneficial for ‘Aaruush Junior’.
* It will help us in Aaruush external publicity in and outside Chennai.
* The team will get hands on experience in conducting and dealing with crisis situations which will help them excel during the tenure of the fest.
* The small team will be leading the complete conduction which will tend to increase effectiveness.

**Cons:**

* There will be no monetary benefit if the Workshop attracts less students.
* Time consuming in terms of approvals, availability and resources.

**Workshops Topics:**

1. **Introduction to Robotics**

**a.** Mobile Robotics

* What are Mobile Robots?
* Applications of mobile robots in various fields

**b.** Human-Robot Interaction

* Need for HMI
* Methods of Robot Control

**c.** Robot-Environment Interaction

* What is a Robot Environment interface?
* Types of Sensors
* Types of Actuators

**d.** Arduino basics

* Introduction to Arduino circuitry
* Introduction to Arduino programming
* Demonstration of alternate ways of blinking LEDs

2. **IoT and Automation**

1. Introduction to Internet of things

* History
* Current Methodologies
* Application in various fields

b. What is automation?

* Definition of automation with respect to IoT
* Examples of Real-Life implementation of Automation

c. Types of networks and protocols

* Networks: 2G,3G,4G,5G, Wi-Fi, Bluetooth, ZigBee
* Protocols: UART, SPI, I2C

d. Node MCU (ESP8266)

* Pin Diagram of ESP8266
* Integrating IoT to Node MCU
* Demonstration of Smart Home using Firebase

3. **Web Design**

1. HTML

* All basics tags involved in Webpage Development.

**b.** CSS

* How to style the tags used in HTML
* Link CSS file to a HTML File

**c.** Java Script

* How to implement JS in HTML
* Implementation of Forms and capturing Data via Java-Script

4. **App Development**

1. Android Studio

* Introduction to Android Studio
* Difference between Activity and Fragment
* Linking one and more activity via Button on Click
* Style Activity and Fragment for UI development
* Integrating Firebase to make an authentication app
* Demonstration of Push Notification in App via Firebase

5. **Smart Energy**

**a.** Renewable sources of energy

**b.** Solar energy

* Types of solar cells
* Current trends and innovations in solar energy

1. Introduction to Electric vehicles

**6. Content Creation and Writing.**

* Tiny Tales Writing
* Essay Writing for School level Competitions
* Script/Content Creation

**7. Public Speaking**

**Tentative Cities:**

* **Hyderabad**
* **Coimbatore**
* **Madurai**
* **Mumbai**
* **Delhi**
* **Pune**
* **Nagpur**
* **Visakhapatnam**
* **Surat**
* **Kochi**
* **Bhopal**

**Implementation Plan**

**Registration:**

The Registration will be done through the Google Forms which will be handed over to the schools agreeing to participate in the Workshop that is to be conducted in their city.

The registration is to be taken place in three phases. The following is the procedure:

1. The first 250-300 registrations will be considered as one phase; these registrations which are noted, are to be the participants in the first phase of the Workshop.
2. The next two phases will be similarly working, having 250-300 students.

**Planning:**

The Workshop Procedure after Registrations is majorly, On spot ID Cards distribution after the collection of money along with the execution of the Workshop.

* The Collection of money is completely entitled by the Workshops Committee & CSI.
* The issue of Workshops Cards, Certificates will be done solely by Workshops Committee.
* The Schools will be providing us with venues and Volunteers who’ll be entrusted with the work before-hand.
* The School is also entitled to deal up and open their gates for other school students during and for the Workshop.

**Decision of the Topic:**

We are entitling the schools to select the Workshop from the Topics we provide them along with the suggestions we give them or receive from them.

Also, the details of the Workshops will be given to the School as soon as they agree to their participation in the Workshop we are conducting in their city.

Also, the complete management, conduction, implementation of the Workshop will be taken care by the Workshop Committee, the venue and the requirements will be taken care by the schools willing to conduct the workshop.

**Workshop Structure:**

* Workshop Registration

This is the online and offline confirmation that the candidate has paid and he shall be given a Workshop ID for the Workshop.

* Workshop Conduction

This is the part where the participants will be given the theoretical and hands-on knowledge on the Workshop topic the school had chosen previously.

* Workshop Quiz

The Workshops will be fun and knowledge based, so when it is over, we check the knowledge gained by the participants, by conducting a small quiz, the participants excelling in the quiz shall be provided with a certificate of appreciation or a trophy.

* Certificate Distribution

We plan on distributing the certificates to the participants in the last session of the Workshop.

**6. Challenges:**

**Objective**

The motive of this challenge is to involve the students attending the school workshops in fun yet competitive challenges where they can –

1. Directly apply the skills attained by attending the workshop.

2. Understand the concepts taught in a better manner.

3. Get involved in a large competition and thus develop their analytical thinking skills and team spirit.

4. Get an opportunity to win incentives and prizes.

**General Plan of Action**

The plan is to provide an opportunity for the students to take part in the Challenge from their own cities, without having to travel elsewhere. Thus ensuring a wider reach for Aaruush and better participation.

1. Challenges will be planned based on the contents of the workshops taken in the schools.

2. There are fees or charges to take part in any of the challenges.

3. The challenges will be based around the concept that –

a. Students can complete the task on the day of the workshop itself and submit their work on the same day

(or)

b. Students can submit their work on the challenge through the internet via email or any suitable portal.

4. Assessment of the submissions will be done by the Aaruush team along with Team Envision.

5. Results will be declared within a week of conclusion of the event.

6. Participants will be provided with certificates and other incentives.

**Necessity for the Challenges-**

* It increases the overall involvement of the schools and their students in Aaruush and thus SRM.
* Provides a means of testing the effectiveness of the workshop in imparting knowledge to the students.
* The teams can gain experience from conducting an event not only outside the campus, but in different cities.

**Topics**

1. Introduction to Robotics

**a.** Mobile Robotics

**b.** Human-Robot Interaction

**c.** Robot-Environment Interaction

**d.** Arduino basics

2. IoT and Automation

**a.** Introduction to Networks

**b.** Simulation through Tinkercad

3. Web Design

**a.** HTML

**b.** CSS

**c.** Javascript

4. App Development

**a.** Android Studio

5. Smart Energy

**a.** Renewable sources of energy

**b.** Solar energy

**c.** Introduction to EVs

**7. Spill the Spell**

The competition will be revolving around English words whose pronunciation and spellings will be given by the participant as an answer. The following is the exact flow of event and what happens in it.

**Round 1: Pronunciations**

* The rounds start with the emcee explaining the rules to contestants.
* The word which is to be pronounced by the participants will be displayed on the screen.
* The participants are entitled for specific information related to the word such as:

1. Definition of the word.
2. Language from which originated.
3. The above information will be presented only once and only if asked by the participants.

* After the word is displayed, the participant has one minute to ask for information and pronounce the word.
* If the answer is wrong or not given in the given time, no point will be awarded.
* Five spells of this round will go about and the correct answers of each contestants will be counted.
* If the participant gives any one of the alternate pronunciations as an answer correctly, it will be considered as a correct answer.
* Participants who have answered a minimum of four words correctly will qualify for the next round.

**Round 2: Spellings**

* The round will commence after a short break having done the elimination.
* This round will be a test about the knowledge of spellings of the given words.
* The words will be pronounced to the contestants and they’ll have to give the spelling of the word verbally letter by letter.
* The contestants are entitled to specific information which will be given if asked. They are:

1. Definition of the word.
2. Alternate pronunciations of the word.
3. Language from which originated.
4. The above information will be presented any number of times and only if asked by the contestants.

* The contestants have two minutes to ask for information and answer.
* If answer goes wrong, the places where the mistakes were done will be noted. This is done to decide the winner in cases of draws in score.
* If unanswered or passed, no point is awarded.
* Five spells of this round will happen and the participant with the highest score wins.

The winner gets the winning prize and the one that comes second will get the second prize.

**8. Green Revamp**

The event is based on ideas given by the students to conserve/substantiate or contribute towards the Earth in any way. The ideas are basically any product which they feel can be used in the day to day life and can help save the environment. Ideas given by the students will not be judged on the basis of feasibility or implementation rather on the basis of creativity of the product. The students have to send in their entries by email or post services.

**Incentives:**  
The top 5 entries will be featuring in the Aaruush app and the winner will be sent exciting prizes.

# Filler Events:

**Event1: Poster making**

The participant has to make a poster on the given theme within the stipulated time. The most impactful poster wins goodies.

**Event2: Essay Writing**

The participant has to write an essay on the provided topic within 30 minutes. The most eloquent and creative content containing entry wins the event.

**Event3: Maths Trivia**

The participant will be given simple questions from Vedic maths which they have to solve as soon as possible. The person with the minimum time wins the event.

**Publicity Plan:**

The publicity for Aaruush Young Minds will happen again in two phases:

**PHASE 1-**

* The publicity for Aaruush Young Minds will start in June i.e. the semester vacation, when the publicity team will be in their respective hometowns and cover the states other than Tamil Nadu.
* The publicity for the schools outside Tamil Nadu will be completed in this phase.
* The publicity team is asked to cover a minimum of 5 schools each near their respective places.
* Acknowledgement letters, Invitation letters, and posters will be provided prior to the publicity.
* The publicity will start in the 2nd week of June and end in the same month itself.
* Follow-ups for the same will be done in the first week of July.

**PHASE 2-**

* In this phase we will cover maximum schools in Chennai, Tamil Nadu. All the required documents same as the previous phase will be sent.
* The publicity for schools in Chennai will be done in July 2nd week and 3rd week according to the opening of the school.
* Follow ups for this phase will be finished by end of June.

**Tentative Dates:**

24th-25th August

**Event Timeline:**

**Day1: 24th August**

**Swastika:**

9:00 a.m. – 10:00a.m.: Inauguration Ceremony

10:00a.m. - 11:30a.m.: Round I

11:30a.m. -11:45a.m.: Setting up of Round II

11:45p.m. - 1:00 p.m.: Round II

1:00p.m. - 1:30 p.m.: Lunch Break

1:45p.m. - 2:45 p.m.: Round III

2:45 p.m. - 3:30 p.m.: Highlights

3:30p.m. - 4:00 p.m.: Prize Distribution and Wrap – up

**Coding Pundits**

9:00 a.m. - 10:00 a.m.: Inauguration Ceremony

10:00 a.m. - 11:00 a.m.: Round I

11:00 a.m. - 11:15 a.m.: Break

11:15a.m. - 12:15p.m.: Round II

12:30p.m. -1:00pm.: Lunch

1:15p.m. - 2:15p.m.: Round III

2:15p.m. - 3:00p.m.: Break

3:00 - 3:30p.m.: prize distribution

4:00p.m.: Wrap-up

**Spill the Spell**

10:30 a.m. – 11:00 a.m.: Event explanation

11:00 a.m. – 12:00 p.m.: Round I

12:00 p.m. – 1:00 p.m.: Lunch

1:00 p.m. – 2:00 p.m.: Round II

3:30 p.m. – 4:00 p.m.: Felicitation Ceremony

**Day2: 25th August**

8:00 a.m. – 9:00 a.m.: Registrations & information about the events happening on the day

9:00 a.m. – 2:00 p.m.: Debate Competition

11:00 a.m. – 12:00 p.m.: Setting up of projects for Science Exhibition

12:00 p.m. – 3:00 p.m.: Science Exhibition

3:30 p.m. – 5:00 p.m.: Felicitation & Closing Ceremony

10:00 a.m. – 3:00 p.m.: Filler Events