

Organizer:

Hong Kong New Generation Cultural Association

(Commissioned by Education Bureau Chief Curriculum Development Office(Gifted Education))

第23屆香港青少年科技創新大賽

**23rd Hong Kong Youth Science & Technology
Innovation Competition**

【Competition Guideline】

【 Competition Guideline for 23rd HKYSTIC 】

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【 Competition Guideline for 23rd HKYSTIC 】

【 1. Introduction, Objectives, Schedule 】

➔ Introduction

Since its launch in 1997, “Hong Kong Youth Science and Technology Innovation Competition” is now the largest and most popular science competition in Hong Kong. The competition is now the 22nd year to hold with nearly 4,000 applicants from over 400 schools participating in this annual event. The competition targets at kindergarten, primary and secondary school students and teachers, with categories including Science Fiction Drawing, Invention, Research, Outstanding STEM Activity, Outstanding STEM Teacher, Outstanding STEM Teaching Aids and Outstanding STEM School.

➔ Objectives

- ◆ To advocate STEM education, arouse students’ interests and raise their standard in science, and to nurture young science talents for the society.
- ◆ To strengthen students’ creativity, innovative and practical skills in order to overcome challenges in the future.
- ◆ To stimulate students’ imagination in scientific research and invention, and to allow them to put their ideas into practice.
- ◆ To provide an opportunity for students to showcase their scientific and innovative ideas.
- ◆ To encourage and commend outstanding schools, teachers and student societies who are dedicated in promoting science and technology education.

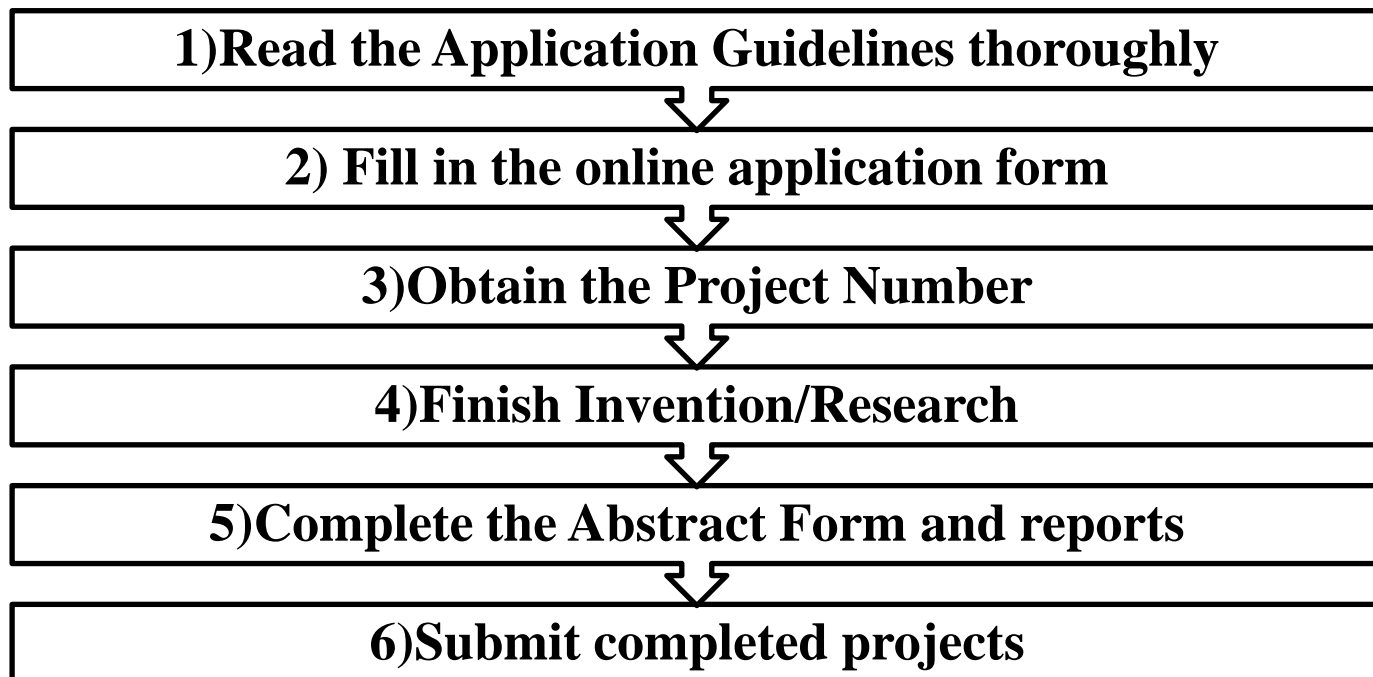
➔ Schedule

Year	Date	Event	Content
2020	26 Sept (Sat)	Briefing Session	Introduction of the competition and important announcements.
2021	31 Jan (Fri)	Application Deadline	All participants MUST submit their application online for entry.
	2 Jan – 5 Feb	Submission of Science Fiction Drawing	Submission of completed Science Fiction Drawings.
	2 Jan – 19 Feb	Submission of Research and Invention (Primary Division)	Submission of completed Primary research reports and inventions.
	2 Jan – 24 Feb	Submission of Research and Invention (Secondary Division)	Submission of completed Secondary research reports and inventions.
		Submission of Projects by STEM Activity, Teacher and School Division	Submission of completed projects in categories of Outstanding STEM Activity, Outstanding STEM Teacher, Outstanding STEM Teaching Aids and Outstanding STEM School
	12 Mar (Fri)	Preliminary Judging	Judges will select projects to enter into the Final Judging. Participants are not required to attend this stage of judging.
	9 Apr (Fri)	Booth Set-up for Finalists	All finalists (except Science Fiction Drawing) are required to set up their booths.
	10 Apr (Sat)	Final Judging and Public Exhibition	All finalists are required to take part in interviews with judges (All members of the group projects MUST be present during the final judging), and present projects to visitors during public exhibition.
11 Apr (Sun)	Prize Presentation Ceremony	All award winners will be presented with prizes, scholarships, trophies or medals.	

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【 2. Application Procedures 】

➔ Application Procedures



Online Application only!
Scan the QR Code to apply



- Interested parties can apply online at HKYSTIC website (<http://stic.newgen.org.hk>) starting from 5 October 2020. Successful applicants will receive a confirmation email with project number upon completion of application.

● **Application deadline: 11:59 pm on 31 January 2021**

- If there are **over 20 applicants** from a school or an organisation, group application will be adopted. **[Group application form]** can be found at DOWNLOAD in the official website. Please send the completed group application form to stic@newgen.org.hk on or before **31 January 2021**.
- Applicants can apply for more than one category and submit more than one project. **Separate application MUST be made for each project. However, one project can only apply for one category.**

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- Applicants will be notified to attend various activities through email. **Please fill in the email address clearly and check regularly.**
- All information provided should be clear and correct.

【 3. Guidelines for competition categories 】

Competition categories includes **Science Fiction Drawing, Invention, Research, Outstanding STEM Activity, Outstanding STEM Teacher and Outstanding STEM School.**

Competition categories	Division			
	Kindergarten	Primary	Secondary (Aged below 14)	—
Science Fiction Drawing	Kindergarten	Primary	Secondary (Aged below 14)	—
Research and Invention	—	Primary Invention Primary Research	Junior Sections Mathematics, Physics and Engineering Chemistry and Materials Biology and Health Energy and Environmental Science Computer Science and Information Technology	Senior Sections Mathematics, Physics and Engineering Chemistry and Materials Biology and Health Energy and Environmental Science Computer Science and Information Technology
Outstanding STEM Activity	—	—	Junior Sections	Senior Sections
Outstanding STEM Teacher	—	Outstanding STEM Teacher		
Outstanding STEM Teaching aids	—	Outstanding STEM Teaching aids		
Outstanding STEM School	—	Primary	Secondary	

Point to notice of different categories are shown below

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【 3.1 Science Fiction Drawing 】

■ General Information (Kindergartner, Primary and Secondary Divisions)

With the advancement of science and technology, students can express their imaginative and creative ideas of the future by means of drawing. It also provides students the opportunity to display their artistic skill and scientific knowledge.

■ General Rules

- Divisions: **Kindergarten, Primary and Secondary Divisions**
(Aged 14 or below, born on or after 1 April 2007)
- **Individual entry only** (no group work, including the creation process and drawing).
- The size of the drawing should be **A2 59.4cmx42cm (+/- 1cm)**.
- MUST be in **landscape** format.

■ Assessment

Criteria	Contents	Percentage
Creativity	Choice of topic and creativity	40%
Aesthetic	Design, coloring, drawing skills	35%
Scientific	Scientific basis and logical thinking	15%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively	10%

*Applicable to finalists only

The entries will be invalid in any of the following situations:

Plagiarism, scientific errors, incorrect size, mixing up of science and myths, infringement of copyright figures, appearance of school logo or name, project without project number

■ Submission

Drawings must be submitted **by mail** (refer to postmark date) or **in person** during office hours within the specified submission period to **C`Gallery (Address: Shop 908-910, Level 9, Fortune Metropolis, 6 Metropolis Drive, Hunghom, Kowloon, Hong Kong)**

Submission period : 30 Jan, 2021 10 am to 1pm ; 1-5 Feb 2021 10 am to 5pm

Items to be submitted:	No. of copies:
Drawing	1
Abstract Form	1

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- Entries can be oil painting, traditional Chinese painting, aquarelle, gouache, pen painting, pencil drawing, crayon painting, prints, collage, computer graphics etc. The style and materials used are not restricted but **MUST** be in the form of a **2D drawing**.
- The Project Number **MUST** be written **at the lower right hand corner at the back of the drawing**.
- The Abstract Form **MUST** be attached **on the left hand side at the back of the drawing**.
- The size of the drawing should be **A2 59.4cmx42cm (+/- 1cm)**. The drawing **MUST** be in **landscape** format, and should be clean and neat.

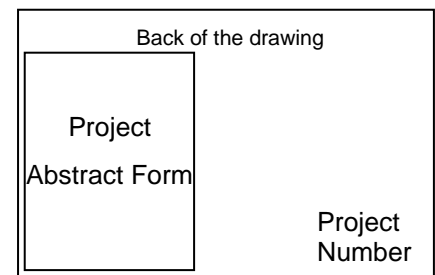
【3.1 Science Fiction Drawing】

- Applicants are suggested to keep an e-copy of the drawing since **all submitted drawings will NOT be returned**.

Note: No school logo or name or teachers' names should appear on any works, otherwise participants will be disqualified.

Show the following items at the back of the drawing as shown on the right

- Attach the Abstract Form
- Write down the Project Number



【3.2 Primary Division: Research and Invention】

- Primary Division: Research and Invention include **Research** and **Invention**

【3.2.1 Primary Invention】

■ General Information

- **Primary Invention** is project to invent new product or technology for practical application, or a scaled down feasible and working model.

■ General Rules

- Applicants can apply **individually** or in **group of not more than 3 members**, but all group members **MUST** be from the same division (Primary, Junior Secondary or Senior Secondary Divisions). **All members** of the group projects **MUST** be present during the Final Judging, otherwise the project will be disqualified.
- New and significant research work and results **MUST** be shown if a similar or continuation project has been submitted in previous year's HKYSTIC.
- The project **MUST** be **completed within 2 years(Feb 2019) before the submission deadline**.

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- The project cannot be illegal or harmful to the public.
- The project which lacks science principles or models that are not functional or research projects without conclusions will not be accepted.
- The whole working process (including the choice of topic, the creation processes and the completion of work) **MUST** be done by the applicant.
- All Research and Invention Manual and Report **MUST** include at least **1 photo showing the invention/research process** and at least **1 photo showing the participants with their finished invention**.
- Projects to be submitted **must not contain** sample of **organisms, plants, liquid, soils** etc. Please show them in other format such a video.
- If the structure of your project is fragile, please submit to our center in person.

■ Assessment

Criteria	Contents	Percentage
Creativity	The creativity, advancement of technology involved and the difficulty of the project.	30%
Practicality	It includes the anticipated socio-economical benefits of the project; the influences, applicability and promotional prospect of the project.	30%
Thoroughness	It includes the sufficiency of data and literature support, the level of completeness of the project.	15%
Skill	It includes the ability of processing data and operating equipment and the level of participation.	15%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively.	10%

*Applicable to finalists only

■ Submission (2 Jan 2021 - 19 Feb 2021)

I). **Primary Invention** must be submitted by mail (refer to postmark date) within the specified submission period to HKNGCA Science Innovation Centre (Address: 21 Hong Kin Road, Tui Min Hoi Area, Sai Kung), title of the letter should be " Primary Invention (PI XXXX) - 23rd Hong Kong Youth Science Technology & Innovation Competition)

II) or in person during office hours

within the specified submission period to HKNGCA Science Innovation Centre (Address: 21 Hong Kin Road, Tui Min Hoi Area, Sai Kung)

Office Hours

Mon - Fri 10am - 5pm

Sat (16 Jan and 30 Jan only) 10am - 1pm

III) online Submission

<https://forms.gle/Hb1k4qLJghJA9SAY6>

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【3.2.1 Primary Invention】

Items to be submitted	No. of copies
The real product or scaled down feasible model **	1
Project Abstract Form (Product photo MUST be attached)	5
Invention manual/Report (Chinese/English)	2
Multimedia items (If applicable)***	1

** Size cannot exceed 100cm(L)x50cm(W)x100cm(H); the assigned Project Number **MUST** appear clearly on the product

***Multimedia items can be DVD (Within 5 minutes) (Chinese/English)

- Each project must have its own **Project Number** (Refer to HKYSTIC website)
- Each project must associate with an **Abstract Form** (Abstract form can be downloaded from HKYSTIC website)
- Each project must be **separately packed** and must clearly show the **Project No, Name of Project** and **Name of participant** both on the package and the project. (Label sample as shown on the right)
- Projects to be submitted **must not contain** sample of **organisms, plants, liquid, soils**, etc. Please show them in other formats such as video.
- If the structure of your project is fragile, please submit to our center in person.
- **Late submission** will result as **invalid Application**.
- Participants qualified for final judging **MUST submit the e-copy (in word format) of their project abstract** and may need to hand in their data log book during final judging (Finalists of Science Fiction Drawing Category need to submit abstract only), so **please keep these documents in a fine condition**.

<p>第23屆香港青少年科技創新大賽 23rd Hong Kong Youth Science & Technology Innovation Competition</p> <p>Project No. : _____ Name of Project : _____ Name of participant : _____</p>

Note: No school logo or name or teachers' names should appear on any works, otherwise participants will be disqualified.

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【 3.2.2 Primary Research projects 】

■ General Information

- Primary research is project to research on science-related topic with experiments, surveys and/or investigation and the results must be presented in the form of a written report.

■ General Rules

- Applicants can apply **individually** or in **group of not more than 3 members**, but all group members **MUST** be from the same division (Primary, Junior Secondary or Senior Secondary Divisions). **All members** of the group projects **MUST** be present during the Final Judging, otherwise the project will be disqualified.
- New and significant research work and results **MUST** be shown if a similar or continuation project has been submitted in previous year's HKYSTIC.
- The project **MUST** be **completed within 2 years(Feb 2019) before the submission deadline**.
- The project cannot be illegal or harmful to the public.
- The project which lacks science principles or models that are not functional or research projects without conclusions will not be accepted.
- The whole working process (including the choice of topic, the creation processes and the completion of work) **MUST** be done by the applicant.
- All Research and Invention Manual and Report **MUST** include at least **1 photo showing the invention/research process** and at least **1 photo showing the participants with their finished invention**.
- Projects to be submitted **must not contain** sample of **organisms, plants, liquid, soils** etc. Please show them in other format such a video.
- If the structure of your project is fragile, please submit to our center in person.

■ Assessment

Criteria	Contents	Percentage
Creativity	The creativity, advancement of technology involved and the difficulty of the project.	30%
Scientific	It includes the legitimacy, the accuracy and the reliability of the scientific principle and research method	30%
Thoroughness	It includes the sufficiency of data and literature support, the level of completeness of the project.	15%
Skill	It includes the ability of processing data and operating equipment and the level of participation.	15%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively.	10%

*Applicable to finalists only

■ Submission (2 Jan 2021 - 19 Feb 2021)

Primary Research must be submitted online at <https://forms.gle/Hb1k4qLJghJA9SAY6>

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- If Candidate being selected to Final, please bring the following documents

Items to be submitted	No. of copies
Research report (Chinese/English)**	4
Project Abstract Form	4
Multimedia items (If applicable) ***	1

- ** Please refer to [Useful Guide](#) for research report format. The [project title, name of applicant and project number MUST be shown on the front page.](#)
- *** Multimedia items can be DVD (Within 5 minutes) (Chinese/English)

Note: No school logo or name or teachers' names should appear on any works, otherwise participants will be disqualified.

【3.3 Secondary Division: Research and Invention】

- 【3.3 Secondary Division: Research and Invention】 divided into 5 categories according to different subjects and each subject is sub-divided into **Junior Sections** and **Senior Sections**. Participants can submit either a research or an invention.

Mathematics, Physics and Engineering	Chemistry and Materials	Biology and Health	Energy and Environmental Science	Computer Science and Information Technology
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【3.3.1 Mathematics, Physics and Engineering】

- **General Information**

- Mathematics:** -Research on mathematics methods or models with application and practical use in any other disciplines
- Physics:** -Research on principles, theories or laws of energy and their materials interaction.
- Engineering:** -Original and innovative practical applications of scientific principles for solving daily problems.

【3.3.2 Chemistry and Materials】

- **General Information**

- Chemistry:** -Research or application of chemical principals.
- Materials:** -Research, inventions or applications of new materials.

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【 3.3.3 Biology and Health 】

■ General Information

Biology:	-Research on the behavior of plants or animals.
Health:	-Research on diseases, medicines or health related topics including the physical or psychological behavior of humans.

【 3.3.4 Energy and Environmental Science 】

■ General Information

Energy:	Application or development of new energy sources.
Environmental:	Research on the sources or controls of pollutions (air, water, land resources etc).

【 3.3.5 Computer Science and Information Technology 】

■ General Information

Computer Science:	Research on computing theories or applications and design of computing hardware or software.
Information Technology:	Research on information system and application.

■ General Rules

- Applicants can apply **individually** or in **group of not more than 3 members**, but all group members **MUST** be from the same division (Primary, Junior Secondary or Senior Secondary Divisions). **All members** of the group projects **MUST** be present during the Final Judging, otherwise the project will be disqualified.
- New and significant research work and results **MUST** be shown if a similar or continuation project has been submitted in previous year's HKYSTIC.
- The project **MUST** be **completed within 2 years(Feb 2019) before the submission deadline.**
- The project cannot be illegal or harmful to the public.
- The project which lacks science principles or models that are not functional or research projects without conclusions will not be accepted.
- The whole working process (including the choice of topic, the creation processes and the completion of work) **MUST** be done by the applicant.
- All Research and Invention Manual and Report **MUST** include at least **1 photo showing the invention/research process** and at least **1 photo showing the participants with their finished invention.**
- Projects to be submitted **must not contain** sample of **organisms, plants, liquid, soils** etc. Please show them in other format such a video.
- If the structure of your project is fragile, please submit to our center in person.

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【 3.3 Secondary Division: Research and Invention 】

■ Assessment

Criteria	Contents	Percentage
Creativity	The creativity, advancement of technology involved and the difficulty of the project.	30%
Scientific(Research) or Practicality(Invention)	It includes the legitimacy, the accuracy and the reliability of the scientific principle and research method or It includes the anticipated socio-economical benefits of the project; the influences, applicability and promotional prospect of the project.	30%
Thoroughness	It includes the sufficiency of data and literature support, the level of completeness of the project.	15%
Skill	It includes the ability of processing data and operating equipment and the level of participation.	15%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively.	10%

*Applicable to finalists only

■ Submission (2 Jan 2021 - 24 Feb 2021)

Secondary Research and invention projects must be submitted online at <https://forms.gle/k29sVUjqMeTmDhju9>

■ If Candidate being selected to Final, please bring the following documents Invention:

Items to be submitted	No. of copies
The real product or scaled down feasible model **	1
Project Abstract Form (Product photo MUST be attached)	5
Invention manual/Report (Chinese/English)	2
Multimedia items (If applicable)***	1

** Size cannot exceed 100cm(L)x50cm(W)x100cm(H); the assigned Project Number **MUST** appear clearly on the product

***Multimedia items can be DVD (Within 5 minutes) (Chinese/English)

Research:

Items to be submitted	No. of copies
Project Abstract Form	5
Research report (Chinese/English)**	2
Multimedia items (If applicable) ***	1

** Please refer to [Useful Guide](#) for research report format. The **project title, name of applicant and project number MUST be shown on the front page.**

*** Multimedia items can be DVD (Within 5 minutes) (Chinese/English)

Note: No school logo or name or teachers' names should appear on any works, otherwise participants will be disqualified.

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【 3.4 Outstanding STEM Activity 】

■ General Information

Outstanding STEM Activity is secondary students can compete in this category as a school club, class or society. The activity must be to an organized group activity to promote science or technology in school or to the public. Log sheets and summary of the activity should be submitted.

■ General Rules

- **Groups, classes or clubs/associations** in secondary schools will be the basic unit of participation. Teachers or other advisory organizations cannot participate in this competition.
- Clubs, classes or societies can assign **3 representatives** to compete. All representatives **MUST** be present during the Final Judging, otherwise the project will be disqualified.
- **Activity record** and **summary** should be provided (including paperwork and other necessary materials)
- The format can be **extracurricular activities, research studies or social activities**, but it **MUST** have an educational goal with science background and the following 5 criteria:

1. Clear Topic	Activities should be designed according to practicability of the school. They should be able to promote technological activities among students in which they can gain technological knowledge, principles and methods of science investigation and can cultivate a scientific mind, so that the benefits can be extended to the communities on aspects of education, production, economics and scientific culture, etc.
2. Complete Procedures	A systematic and complete report, schedule, and other necessary items, such as records or log sheets of how the actual work has been carried out. A final conclusion or evaluation should also be drawn.
3. Complete Materials	Including the planning and log sheets (content, time, venue, number of participants and name list), photos or DVD, news articles, etc. which can reflect the process of the whole activity.
4. Definite Results	Precise and clear word description (Chinese/English) on the results of activities by the persons-in-charge or the major participants are required. Other related items, such as photos, DVD or real objects can be submitted along with the written project.
5. Actual Benefits and Experiences	Including the experiences that the students have gained, the extent of effects and benefits covered in communities and suggestions for follow up work that is to be done in future.

■ Assessment

Criteria	Contents	Percentage
Practicality	Activities are matched with the knowledge and ability of participants, and with practicable means.	30%
Demonstrability	Activities should demonstrate clear aims of current technological development. The design and format should be scientific and have innovative ideas, easy to carry out, promote general science and focus on solving problems in daily life.	30%
Innovation	Content, procedures and methods of the design should be innovative and flexible so that they can be modified according to needs easily.	30%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively	10%

*Applicable to finalists only

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■ Submission (2 Jan 2021 - 24 Feb 2021)

Outstanding STEM activities projects must be submitted online at

<https://forms.gle/k29sVUjqMeTmDhju9>

■ If Candidate being selected to Final, please bring the following documents

Item to be submitted	No. of copies
Project Abstract Form	5
Project Report (Must be handwritten or printed on A4 white paper) (Chinese/English)	2
Log sheets, photos, multimedia information, etc	2

Note: No school logo or name or teachers' names should appear on any works, otherwise participants will be disqualified.

【3.5 Outstanding STEM Teacher】

■ General Information

Outstanding STEM Teacher Award is awarded to teachers who show excellent achievement in promoting science and technology education.

■ General Rules

- **Individual application only**
- Target: **All Hong Kong secondary and primary teachers, technicians and teaching assistants.**
- The applicants must have related teaching experience in science and technological education
- Contents and teaching materials must be related to science and technological education
- **A completed report and a full set of teaching material** must be submitted
- Teachers who have won the 10 Best Outstanding Science and Technology Teachers Award in CASTIC can apply to this category again **only after 5 years.**

■ Assessment

Contents	Percentage
Past experiences in leading students science or technological related activities	10%
The principle and knowledge relating to science & technological education	40%
The project report and teaching materials for science and technology activities for students**	40%
Presentation Skill*	10%

*Applicable to finalists only

**The project report will be assessed based on the following 5 areas:

(1) **Science:** The ideas and principles illustrated are reliable, i.e. not violating with basic principles in natural science, social science, thinking science, mathematics, techniques and engineering.

(2) **Practicality:** Activities are matched with the knowledge and ability of participants, and with

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practicable means.

(3) Demonstrability: Activities should demonstrate clear aims of current technological development. The design and format should be scientific and have innovative ideas, easy to carry out, promote general science and focus on solving problems in daily life.

(4) Innovation: Content, procedures and methods of the design should be innovative and flexible so that they can be modified according to needs easily.

(5) Completeness: Project should have been completed wholly or partially, with clear aims, well-planned procedures and results.

■ General Content of Project Proposal

- ① Title
- ② Background (with analysis) and objective
- ③ Target and total number of participants
- ④ Main Section
 - Activity Content
 - Main objectives, difficulties and innovative parts
 - Utilization of resources (E.g. venue, data, equipments, etc.)
 - Anticipated problems and respective solutions
 - Anticipated results and format
 - Assessment format and standard
 - Benefits for teenagers (E.g. ethical and intellectual benefits, etc.)

■ Submission (2 Jan 2021 - 24 Feb 2021)

Outstanding STEM teacher projects must be submitted online at

<https://forms.gle/k29sVUjqMeTmDhju9>

■ If Candidate being selected to Final, please bring the following documents

Item to be submitted	No. of copies
Teacher and Project Abstract Form	5
Project Proposal	2
News and Raw Materials (log books, photos, DVD etc)	2

Note: No school logo or name should appear on any works, otherwise participants will be disqualified.

【 3.6 Outstanding STEM Teaching Aids 】

■ General Information

Teaching aids refer to auxiliary tools or models for teaching science topics. New products or technology or scaled down models should be **functional**.

■ General Rules

- **Individual application only.**
- Target: **All Hong Kong secondary and primary teachers, technicians and teaching assistants.**
- The invention **MUST** be **completed within 2 years before the submission deadline**, ie. Starting study from Feb 2017 onwards.

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- The ideas and design of the invention **MUST** be completed by the applicant solely. Plagiarism is prohibited.
- Projects cannot be illegal or harmful to the public.
- Projects which lack scientific principles or models which are not operative will not be accepted.
- All Research and Invention Manual and Report **MUST** include at least **1 photo showing the invention/research process** and at least **1 photo showing the participants with their invention**.

■ Assessment

Criteria	Contents	Percentage
Practicality	It includes the anticipated socio-economic benefits and practical outcomes on educational purposes.	30%
Creativity	It includes the creativity, advancement of technology involved and the level of difficulty of the project.	25%
Thoroughness	It includes the sufficiency of data and literature support, the level of completeness of the project.	20%
Skill	It includes the ability of processing data and operating equipment and the level of participation.	15%
Presentation Skill*	Ability to present ideas clearly and concisely and to handle judges' questions effectively	10%

*Applicable to finalists only

■ Submission (2 Jan 2021 - 24 Feb 2021)

Outstanding STEM teaching aids projects must be submitted online at

<https://forms.gle/k29sVUjqMeTmDhju9>

■ If Candidate being selected to Final, please bring the following documents

Items to be submitted:	No. of copies
The Project Abstract Form (Product photo MUST be attached)	5
The actual invention or the scaled down workable model **	1
Invention Manual/Report (MUST explain the principle of applications, usages, shortcomings and possible improvement)	2
Multimedia Items (If applicable) ***	1

** Size cannot exceed 100cm(L)x50cm(W)x100cm(H); the assigned Project Number **MUST** appear clearly on the product

***Multimedia items can be DVD (Within 5 minutes) (Chinese/English)

Note: No school logo or name should appear on any works, otherwise the project will be disqualified.

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【 3.7 Outstanding STEM School 】

■ General Information

Outstanding STEM School will be awarded to secondary schools and primary schools. Winning schools will be nominated to represent HKSAR to participate in the School of Distinction Award of the China Adolescents Science and Technology Innovation Contest.

■ General Rules

- School **MUST** have proven record and achievement in hosting and promoting science and technology activities
- School should have policy related to fostering and implementing science and technology education
- Application from either **full-day or half day primary or secondary schools in Hong Kong** only
- Schools who have won the 10 Best Outstanding Science and Technology Schools Award in CASTIC can apply to this category again **only after 3 years**.

■ Assessment

Criteria	Contents	Percentage
Science/Technology education philosophy	The practice of school policy on science/technology education philosophy, and how to develop sustainable science/technology education	10%
Promotion achievements in/outside school	The measures of promotion of science/technology education and participations in/outside school, science/technology curriculums and activities and teaching strategies	40%
Training of professionals and effective resources input	The professional training and development of science/technology teachers, the effective input of resources and build up of infrastructure	40%
External science and technology achievements	School science/technology education awards, including local/non-local science/technology competitions	10%

■ General Content of Project Report (*Please check Project Report Guidelines for details)

1. School abstract
2. Science/Technology education philosophy
3. Promotion achievements in/outside school
4. Training of professionals and effective resources input
5. Science/Technology winning situation outside school

■ Submission (2 Jan 2021 - 24 Feb 2021)

Outstanding STEM school must be submitted online at <https://forms.gle/k29sVUjqMeTmDhju9>

■ If School being selected to Final, please bring the following documents

Items to be submitted:	No. of copies
Abstract Form	5
Project Report (Including documents, photos, DVD, etc)	2

【 Competition Guideline for 23rd HKYSTIC 】

【 4. Awards 】

➤ Awards

- ✧ The 1st, 2nd and 3rd Place Grand Awards and Merit Awards will be presented in each category.
- ✧ Grand Award winners will each be presented with a trophy and a certificate, while Merit Award winners will be presented with a medal and a certificate. All eligible participants and teachers will each be presented with a certificate of participation.
- ✧ Outstanding winners will be nominated to represent HKSAR to participate in various national and international science contests including the China Adolescents Science and Technology Innovation Contest*, the Awarding Program for Future Scientists, the Taiwan International Science Fair, the Intel International Science and Engineering Fair and the International Sustainable World Project Olympiad.

*Nomination Quota of the China Adolescents Science and Technology Innovation Contest is as follows:

Division	Quota
Individual Basis	
Senior Secondary Division	6
Junior Secondary Division	2
Primary Division	1
Group Basis	
Senior Secondary Division	2
Junior Secondary / Primary Division	1

**The quota may subject to change

✧ **Young Scientist of the Year**

One award for Senior Secondary Division.

Awarded to one all-round outstanding student in the Senior Secondary Division.

✧ **Most Innovative Award (Sponsored by TamJai SamGor)**

One award for Primary, Junior Secondary and Senior Secondary Divisions respectively.

Awarded to the project with the highest overall score in respective division.

One award for Primary Division with scholarship HKD\$1000, Junior Secondary and Senior Secondary Division with scholarship HKD\$3000 respectively

✧ **Emerson Special Award**

Awarded to outstanding Secondary Division projects related to Electrical and Electronic Engineering, Environmental Sciences and Material Sciences.

Three awards for Junior Secondary and Senior Secondary Division with \$2000 and HKD\$3000 scholarship respectively.

✧ **WECL Special Award**

Awarded to outstanding Secondary Division projects in the category of Biology and Health.

Two awards for Junior Secondary and Senior Secondary Division with \$2000 and HKD\$3000 scholarship respectively.

【Competition Guideline for 23rd HKYSTIC】

【4. Awards】

✧ **Bull. B Tech Award for Computer Science and Information**

Technology

Awarded to outstanding Secondary Division projects in the category of Computer Science and Information Technology.

Two awards for Junior Secondary and Senior Secondary Division with \$2000 and HKD\$3000 scholarship respectively.

✧ **HKCTC Special Award for Outstanding Project in Testing**

All secondary school's contestants with project related to testing are eligible for the special award.

First, Second, Third Place Grand Awards will be selected for Secondary Division
Special award winners will each be presented with a trophy and a certificate

✧ **Occupational Safety and Health Council Special Award for Outstanding Project in Occupational Safety and Health**

All secondary school's contestants with project related to Occupational Safety and Health are eligible for the special award.

First, Second, Third Place Grand Awards will be selected for Secondary Division
Special award winners will each be presented with a trophy, coupons and a certificate

✧ **Polar Research Institute of Hong Kong Special Award**

One award for Secondary Division or Outstanding STEM activities

Awarded to the outstanding projects related to Polar research or climate change

Each winner will also be presented with a trophy, a certificate and HK\$3000 scholarship

【Competition Guideline for 23rd HKYSTIC】

【4. Awards】

✧ Outstanding Participating School Award

Awarded to primary and secondary schools which submit the largest number of outstanding projects. The assessment criteria are as follows:

Requirement	Mark(s)/project
Each qualified project submitted	1
Each project receiving a Merit Award	100
Each project receiving a 3rd Place Grand Award	200
Each project receiving a 2nd Place Grand Award	300
Each project receiving a 1st Place Grand Award	400

*Marks will not be accumulated for each project. (i.e. 400 marks for a 1st Place Grand Award Project)

*Separate calculation for Secondary and Primary School

✧ Outstanding STEM School

Awarded to secondary school and primary school respectively

Winners will be nominated to represent HKSAR to participate in the School of Distinction Award of the China Adolescents Science and Technology Innovation Contest

【 Competition Guideline for 23rd HKYSTIC 】

【 5 Other Regulations 】

➔ Other Regulations

- ✧ All award winning projects **will NOT be returned**. Only non-winning inventions can be retrieved by the applicants during a set period to be announced on a later date. Please check website for details after the Final.
- ✧ All projects MUST be **completed within 2 years before the application deadline (on or after February 2019)**.
- ✧ **No school name or logo or teachers' names** should appear on any projects (except for School Category), otherwise the project will be disqualified.
- ✧ All members of the group projects **MUST** be present during the Final Judging, otherwise the project will be disqualified.
- ✧ Participants qualified for final judging **MUST** submit the **e-copy (in word format) of their project abstract** and may need to hand in their log book before final judging (Finalists of Science Fiction Drawing Category need to submit abstract only), so please keep these documents in a fine condition.
- ✧ The Association **will not be responsible** for any disputes concerning the intellectual property rights of any projects.
- ✧ The Association reserves the publication rights of all projects, including the right to display the works for media and public exhibition.
- ✧ The decisions of the Association shall be final.

【 Competition Guideline for 23rd HKYSTIC 】

【 6 Introduction of Organizer&Enquiries 】

➔ Introduction of Organizer



Hong Kong New Generation Cultural Association is a government-approved public charity organization. It used to be the “**Student Times**” Magazine which was first established in 1974. Since its inception, we have always uphold the principle of “ **Vision, innovation, erudition and responsibility**”, committed to offering multiple activities and services to the educational field of Hong

Kong, in order to provide opportunities for the youth to cultivate and develop themselves, to gradually build a positive outlook on life and the spirit of caring for the whole society, and to become well-informed new generation rooted in Hong Kong. Meanwhile, for nurturing the young people and teachers’ sense of belonging and responsibility to the country and nation, we also initiate, create conditions for young students and teachers to understand and concern our motherland, to comprehend and carry forward the Chinese culture.

Since 2003, our Association has registered with the Intel International Science and Engineering Fair (Intel ISEF) as the sole local affiliation in Hong Kong. Founded in 1950, Intel ISEF is the world’s largest pre-university science competition and it is regarded as the cradle for young scientists. Throughout its history, over 20 Noble Laureates were once winners at Intel ISEF! Each year over 1600 young talented scientists from around the globe gather in the USA to share ideas and showcase their research and innovation.

Since 2004, our Hong Kong teams have achieved great results in Intel ISEF, with several students receiving the honor of having minor planets named after them for their successes in these competitions, they include Chan Yik-hei (2004), Chan Ka-kin (2007), Lau Tak-shing and Lau Tak-kin (2008), Lam Chun-hei (2010), Chan Tai-hei and Fong Er Hai (2014), Wong Sum-ming and Li Kin-pong (2015), Lee On-kee (2010) and Kan Wing Yi (2014).

➔ Enquiries

Hong Kong New Generation Cultural Association Science Innovation Centre

Tel : 2792 3639

Fax : 2792 0286

Email : stic@newgen.org.hk

Website : <http://stic.newgen.org.hk>

Address : HKNGCA Science Innovation Centre, 21 Hong Kin Road, Tui Min Hoi Area, Sai Kung, NT.

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