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## AstroChallenge 2009

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To: Teachers-in-charge and Participants

On behalf of the organizing committee, I would like to thank you for your keen interest and participation in **AstroChallenge 2009**. The following are some important points to be noted:

### 1) Payment

The registration fee for **each Newcomer team** is S\$40.00 and **each Junior or Senior team** is \$60.00. You can pay by cash only. Collection will be done on the first day of the competition during registration. This registration fee is to defer the costs of the competition and does not include the participants' meals on 12<sup>th</sup> June, 13<sup>th</sup> June and 15<sup>th</sup> June. Participants will be ushered to the canteen for their meals.

### 2) Attire

Participants are encouraged to wear school uniforms (secondary schools and junior colleges) or society T-shirts (polytechnics).

### 3) Location and time to report

Day 1 (12<sup>th</sup> June) 1230 – NTU LT1  
Day 2 (13<sup>th</sup> June) 1330 – Marine Parade CC  
Day 3 (15<sup>th</sup> June) 0900 – NUS LT28

The respective maps for NTU and NUS (see Appendix V) are included in this letter. You may contact Kuan Khooon at 93853850 for driving directions to NTU.

### 4) Itinerary

Please refer to Appendix I.

### 5) Rules and Regulations

Please refer to Appendix II.

### 6) Project Round

Please take note that the Scientist cosplay materials are to be **COMPLETED**

beforehand and brought along together with the **Declaration Form** (see Appendix III and IV) on 13 June 2009.

Please refer to Rules and Regulations in Appendix II for more information.

#### 7) Indemnity Form

As the competition this year will be partially held in a public place (Marine Parade CC), we require all students to submit a Consent and Indemnity Form. A copy of the Consent and Indemnity Form is included in Appendix VI. You may also download the form online at our website, <http://www.astrochallenge.com>. All students should sign and submit the Consent Forms on 12 June when registering at NTU. If the consent forms are not submitted, the students will not be allowed to participate in the Project Round at Marine Parade CC on 13 June 2009.

#### 8) Newcomers Category

Participants in the Newcomers Category will participate in the same rounds as the Junior Category, i.e. MCQ, Data Response, Project, and Special rounds and Final rounds. The standard of questions will be easier than that of the Junior Category.

#### 9) Things to bring for the competition

1. Writing materials and calculator
2. Consent and Indemnity Form for participants on **12<sup>th</sup>** June
3. Telescope for participants in the Senior category on **12<sup>th</sup>** June
4. Completed Project and Declaration Form on **13<sup>th</sup>** June only
5. Money for meals (You will be guided to the canteen during mealtimes.)

#### 10) Guests of Honour

Our Guest of Honour, Mr Patrick Ng, Chairman of the Marine Parade Community Club Management Committee, will be gracing the event on 13 June 2009 and Mr Sim Yeow Kwee, David, BBM, Chairman of the Woodlands CCC, on the evening of 15 June 2009.

#### 11) Public Events at Marine Parade CC (13 June)

As part of the outreach efforts by the AstroChallenge committee, we are organising two public talks and a public stargazing session at East Coast Park on 13 June. The two talks will be after the Project Round and the public stargazing session will be after dinner. All schools are invited to join us. You may also bring friends and families, as the events are open to public. Transport from Marine Parade CC to the observation site will be provided.

Please note that these are **not official** competition events and carry no weightage in final score. It is not compulsory to attend, however we strongly encourage you to join and help us all in our efforts to promote astronomy to the public.

More details on the public events will be provided on AstroChallenge website.

Please contact us at [astrochallenge@gmail.com](mailto:astrochallenge@gmail.com) if you have further enquiries. We look forward to seeing you at AstroChallenge 2009. Thank You.

Regards,

Mao Zongyao  
President  
AstroChallenge 2009 Committee

## **Appendix I – Schedule**

### **Day 1 of AstroChallenge 2009: 12<sup>th</sup> June 2009 – NTU LT 1**

1230h – 1330h	Registration & Opening
1330h – 1430h	Multiple Choice Questions Round
1430h – 1530h	Break
1530h – 1700h	Data Response Questions Round
1700h – 1830h	Dinner
1830h – 1900h	Briefing on Observation Round
1900h – 2130h	Observation Round (for Senior category only)

### **Day 2 of AstroChallenge 2009: 13<sup>th</sup> June 2009 – Marine Parade CC**

1330h – 1400h	Registration
1400h – 1430h	Preparation
1430h – 1630h	Project Round - Presentation & Evaluation
1630h – 1700h	Prize Presentation
1700h – 1730h	Clearing Up/ Movie screening
1730h – 1830h	Public Talk 1
1830h – 1930h	Dinner-time
1930h – 2030h	Public Talk 2
2030h – 2045h	Boarding of Bus to East Coast Park

### **Day 3 of AstroChallenge 2009: 15<sup>th</sup> June 2009 – NUS LT 28**

0900h – 0930h	Registration & Briefing
0930h – 1130h	Special Round
1130h – 1215h	Lunch
1230h – 1430h	Final Round (Junior)
1230h – 1430h	Final Round (Newcomer)* – <i>Concurrent with Junior Category, held at LT29, NUS</i>
1430h – 1500h	Break
1500h – 1700h	Final Round (Senior)
1700h – 1730h	Refreshment
1730h – 1830h	Prize Presentation Ceremony

## **Appendix II - Rules and Regulations**

### **Note:**

*The following list comprises of the rules for all the rounds in AstroChallenge. The organizing committee reserves the right to amend any part thereof in this list.*

### **General Rules:**

- **Handheld communication devices or devices with storage and display capabilities (other than calculators) should not be used during all the quiz rounds.**
- **All questions asked are strictly based on astronomy.**
- **Any team caught cheating will be disqualified immediately from the competition. The teacher in-charge and their respective schools will be notified in the event of cheating.**
- **The tabulation of points is final. No further correspondence will be entertained.**
- **The point score of each round will be kept confidential and will not be released to any participant.**

### **Rules and Regulations for Specific Rounds:**

#### **Multiple Choice Questions (MCQ) Round**

Duration: 1 hour

This round aims to test knowledge on astronomy

- This is an individual round.
- The team reserve can take part.
- The overall points for MCQ will be the total marks from the best 4 individuals in the team.
- There will be a total of 40 Questions.
- A Best Astronomer from each category will be selected based on the individual score for this round.
- The types of questions are different for newcomer and for junior and senior category.
- The questions for *newcomer category* are related to the basic astronomy knowledge like solar system, constellations, deep sky objects, simple telescope knowledge, and recognizing the types of galaxies.

#### **Data Response Question Round**

Duration: 1 hour and 15 minutes

This round aims to test application of principles and concepts in astronomy

- This round can be done as a group
- The questions are application of knowledge based.
- The team reserve cannot take part, unless one member of the team is absent and/or unwell. Only 4 participants of the team can take part in Data response.

- The points awarded to the team for this round consist of the total mark tabulated from all the questions.
- There will be total of 5 Data Response Questions. Each question is not related to each other.
- The questions for *Newcomer category* generally require basic application of math in solving astronomy problems. The formulas will also be given for those questions which need many formulas.
- Assessment will be primarily based on construction, style, accuracy of facts, presentation skills and creativity.
- Refer to Appendix III for **AstroChallenge 2009 Cosplay Parade @ Marine Parade Entry Rules and Regulations**.
- **Participants must print and sign the attached Project Round Information Sheet and Declaration Form (see Appendix IV).**

### **Observation Round (Senior Category Only)**

Duration: 2 hours (depends on weather)

Venue: Field at NTU Sports and Recreation Center (SRC), behind Hall 6.

This round aims to test practical skills in night sky observation

- This is an inter-school round.
- Each school can only have ONE team (5 people) in the observation round. If the school has more than 1 participating team, all teams will get the same points as the participating team. The school can choose 5 people out of all its participating teams to participate in this round.
- Participants are given a list of celestial objects to search using their own telescopes, and then complete their log sheets (provided).
- The objects can be found in ANY order. Each object is assigned a difficulty level, which will be given to you during the round. The more difficult the object, the higher the points.
- Judges will conduct random checks to verify the objects found by the team.
- Go-to enabled mounts/scopes and any form of computerized mounts/scopes are NOT allowed to be used during this round, unless the motor and computer are switched off and the scope operated manually.
- Planispheres, or any other reference material, are NOT allowed. A standard star chart is provided for all participants to maintain consistency.
- Participants are expected to pack their equipment in shock absorbing material to ensure it will not be damaged during transport.
- The organizers, judges, NTU, NUS and Marine Parade CC are **not** liable for any loss or damage of equipment at any point of time during the competition.
- This round is dependent on the weather and in case of bad weather, the organizing committee reserves the right to call off or replace the round.
- The organizing committee of AstroChallenge 2009 cannot be held liable for the weather.

### **Project Round**

Duration: 2 hours for all three categories (1 minute presentation for each team).

This round aims to test creativity and application of ideas

- Participants are to perform a **cosplay** of “**Any Astronomy Related Scientist**” with the complete specification and context decided by the team **prior** to the competition.
- The cost for preparing the costume must be **less than S\$50**.
- All groups will be given approximately 30 minutes to prepare before presentation.
- The reserve can help with the preparation of the costume and presentation.
- Each group is given **1 minute** to present their model to the judges and/or audience.
- The team must be ready to answer any questions that the judges and/or audience may ask. They may use simple materials to aid in their explanation.

**Note:** Computer presentations **should not** be used.

- The entrants may be filmed or photographed during the cosplay parade. Newcomer Category’s project will be judged separately from Senior and

### **Special Round**

Duration: 2 hours

Rules will be announced before the commencement of the round.

### **Final Round**

Duration: 2 hours

The **top five teams\*** (based on all the rounds) from the Senior, Junior and Newcomer category will each take part in this round.

- Only 4 participants are allowed for each team. The fifth member is not allowed to sit together with the team.
- Any question or answer mentioned after the 2 hour duration **will not** be accounted for in the overall points for the teams.

Round 1: Individual Round.

- Each member of the team is to answer questions without help from the other members.

Round 2

- The rules regarding this round will be revealed on the day itself.

Round 2: Buzzer Round.

- The Quizmaster will indicate who has hit the buzzer before the team is allowed to answer the question.
- The team will be given a time limit to answer the question. If the answer is incomplete or not given after the time limit, the team is deemed to have given an incorrect answer. The question may then be opened to the rest of the teams.

- In the event of a dispute, the judges and organizers reserve the right to have the final say in the accuracy of the answer, and the award of points. The judges' decision is final.

\* As mentioned in the previous letter, **only one team from each school per category** can qualify for the Final Round.

**Score Weightage (AstroChallenge 2008)\***

	Junior and Newcomer	Senior
Round 1 - MCQ	35%	30%
Round 2 - Data	35%	30%
Round 3 - Special round	10%	10%
Round 4 - Observation	-	10%
Round 5 - Project	20%	20%
Total	100%	100%

Grand total = (0.7 x Total for Final Rounds in %) + (0.3 x Total for Preliminary Rounds in %)

\* The weightage for AstroChallenge 2008 is given to serve as a guide for the participants. The committee reserves the right to amend the weightage when necessary.



## Appendix III

### AstroChallenge 2009 Cosplay Parade @ Marine Parade

#### Entry Rules and Regulations

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- The theme for the cosplay is “**Any Astronomy Related Scientist**”
- Only one individual per team is allowed to dress up. The other members of the team must be present throughout the parade and act as helpers and provide assistance.
- Students are allowed to use props which relate to the scientist they are representing. **However, the participants are not allowed to use any projectiles (sprays, liquids, silly strings etc.) and/or pyrotechnics/flammable materials.**
- Purchased equipment is not allowed during the cosplay parade. The majority of the costume should have been constructed by the team themselves. Bought items like headbands, wigs, accessories or plain clothes like trousers and shirts are allowed. If the participant is entering a costume constructed by another attendee, the organizers should be notified on the entry form so that proper credit can be given.
- All entrants must **provide a picture or photo reference** of the character/costume they are representing. The participant will be judged against this reference provided. Original costumes can be represented by concept sketches and a brief explanation of the inspirations behind the costumes.
- All entrants must sign in at the cosplay desk and should **deposit their picture by 1.45 pm.**
- The participants are required to prepare a **1-minute presentation**, which will be related to the scientist they are portraying. Participants should take into account the accuracy of the facts.
- **No nudity in costumes is allowed.** This is a family show and will contain young audience.
- The decision of the judges is final.
- One winning prize will be awarded per category (i.e. Newcomers, Juniors and Seniors) for the best overall participant.
- A special award will also be given for each category on the basis of voting from non-participating schools. **Voting ends at 3.30pm.**

## **Appendix IV**

### **AstroChallenge 2009**

#### Project Round Information Sheet and Declaration Form

To understand the present, we always have to start by learning about the past. **For this round, you are to design and create a cosplay of an “astronomy related scientist”.**

You can decide on any scientist who has contributed to astronomy before. You may also use any prop to help you bring out the character you are going to cosplay. Examples of materials (but not limited to) that can be used are old T-shirts, cardboard boxes. Use your creativity and imagination. You will present the model to the judges and/or audience on **13<sup>th</sup> June 2009**. Please bring a picture or photo of the character you will cosplay – this picture will act as the reference to which you will be judged.

**The costume must be worn by one of the participants during the presentation.**

The costume will be judged based on the following: Construction, Style, Accuracy of facts, Presentation skills, Creativity.

**You are to abide by the regulations as stated in Appendix III and every member of the team as well as the Teacher in-charge must sign the following declaration which must be brought together with the project on the day of the Project Round.**

We, team \_\_\_\_\_ from \_\_\_\_\_, declare that we have **not**:

- 1) exceeded 35 man hours in the construction of this project
- 2) obtained assistance from a teacher, trainer or professional expert to construct the project

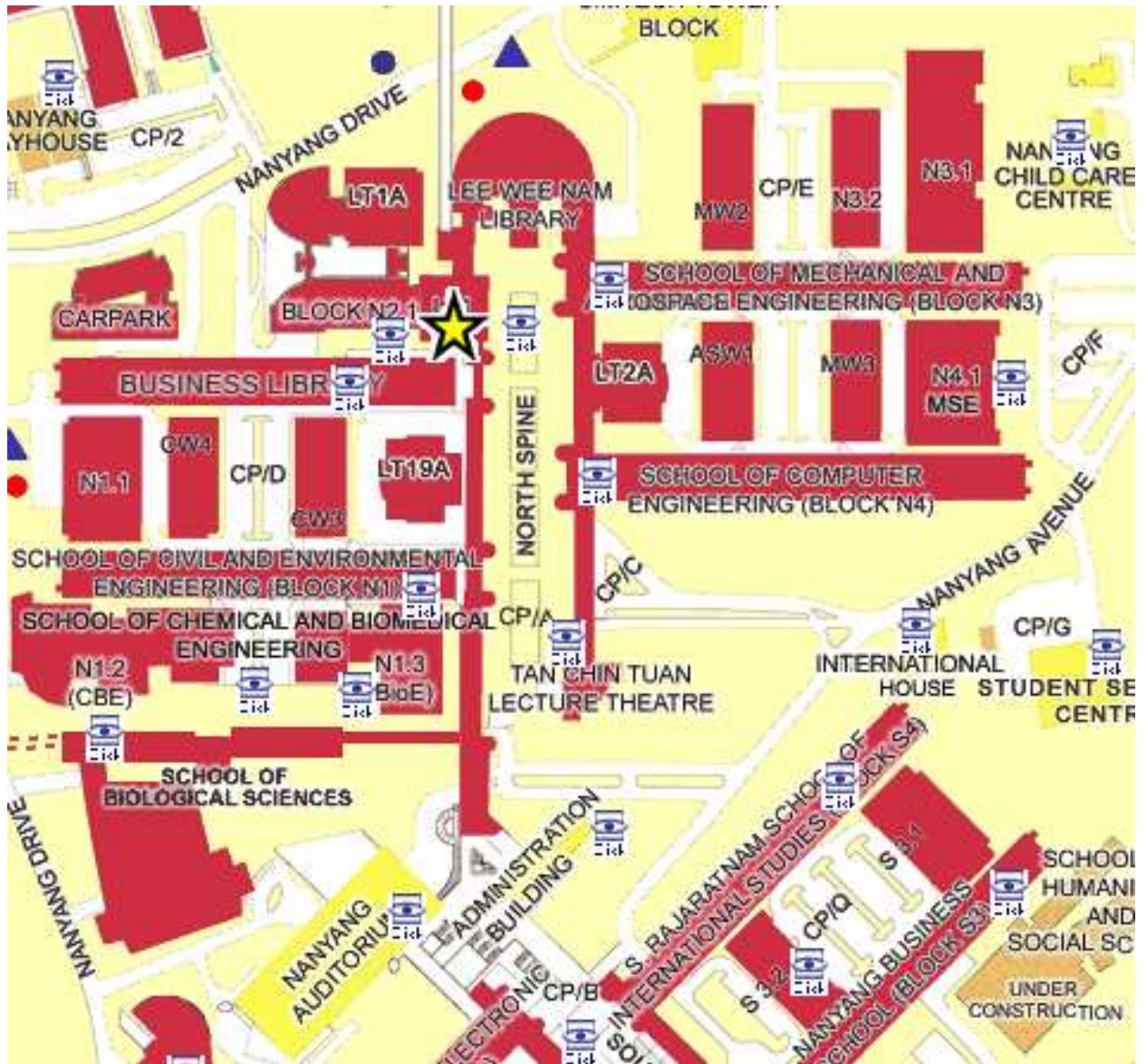
We understand that any contravention to the above regulations may result in a penalty and/or the disqualification of the project.

\_\_\_\_\_  
Signature of team members

\_\_\_\_\_  
Name/Signature of Teacher I/C /Date

**Appendix V – Maps**

Map of NTU –LT1 (shown using stars in the map)













**Appendix V (cont'd)**

MAP of NTU SPORTS and RECREATION CENTRE (Observation Site).



Legend:

	Searched Location		Bus Stop for Service 179
	Academic Buildings		Bus Stop for Service 199
	Halls of Residence		Bus Stop for Shuttle Bus Service Route A
	Staff Housing		Bus Stop for Shuttle Bus Service Route B
	Institutional Buildings		Shuttle Bus Terminal (at Carpark J)

For more information on how to get to NTU LT1, LT1A, and SRC, please visit:

<http://www.street-directory.com/ntu/campus.cgi?sizex=600&sizey=600&star=&ismap=1&x=2326&y=1438&level=3?319,487>

**Appendix V (cont'd)**

Map of NUS – LT 28 and LT 29





**Appendix V (cont'd)**

Map of Marine Parade CC



## Appendix VI



### **AstroChallenge 2009**

### **CONSENT AND INDEMNITY FORM**

I, (Dr/Mr/Mrs/Mdm)\* \_\_\_\_\_, the parent/guardian\*  
of \_\_\_\_\_ hereby grant permission to allow my  
son/daughter/ward\* to participate in AstroChallenge 2009 held at :

NTU – 12 June 2009

Marine Parade CC – 13 June 2009

NUS – 15 June 2009

or such extended period as may be deemed necessary for the completion of the event.

AND

I, \_\_\_\_\_ (student's name), from  
\_\_\_\_\_ (student's school) hereby confirm that I am  
participating in the above stated event voluntarily and by my own free will.

I/We\* further agree that:

- I/We\* **will abide by** the applicable **rules and regulations** as may be prescribed from time to time by the AstroChallenge Committee; and
- I/We\* **will not hold** the AstroChallenge Committee or any full time or part time staff **responsible or liable** in any way for, and that no right of action shall arise from, any loss or damage (including, without limitation, personal injury and property damage) caused by or sustained as a result of my child's/ward's (as applicable) participation in the activities, whether through: (i) neglect on the part of the AstroChallenge Committee or any of its full time or part time staff; or (ii) otherwise; and
- I/We\* **will indemnify** the AstroChallenge Committee and keep the Committee indemnified against all losses, claims, demands, actions, proceedings, damages, cost expenses, and any other liability arising in any way from my child's/ward's (as applicable) participation in the activities or any breach of my child's/ward's (as applicable) undertakings hereof
- I/We\* am/are aware of the possible risks involved in the event and accept the same, notwithstanding the fact that the event is intended only for those without medical problems and who are in a state of sufficient physical fitness to participate in the same. Participation in this event is at the participant's sole risk.

**To be completed by parents/legal guardians of students:**

Signature of Parent/Legal Guardian\* : \_\_\_\_\_

Name of Parent/Legal Guardian\* : \_\_\_\_\_

Date : \_\_\_\_\_

**To be completed by all students:**

Signature of Participant : \_\_\_\_\_

Name of Participant : \_\_\_\_\_

Date: : \_\_\_\_\_

<b>CONTACT PERSON(S) (PARENT OR GUARDIANS) IN SINGAPORE</b>			
Name:	1.	Relationship with Participant:	1.
	2.		2.
Address:	1.		
	2.		
Contact No:	1.	Language Spoken	1.
	2.		2.

\* Delete where applicable

\*\*\*\*\*End of Form\*\*\*\*\*