



## **TINKER CAMP (DEC 2019)**

### **ABOUT TINKER CAMP:**

Science Centre Singapore's 2D1N *TINKER CAMP* at the Tinkering Studio returns for this June School Holiday! We are back and this time will be focusing on STEM woodwork workshops like Geoboard, Pinball machine and working with CNC machine. We will end up the camp with participants prototyping their own carnival games. Get ready, set and tinker!

Set-up in collaboration with San Francisco's Science Centre, The Exploratorium, The Tinkering Studio encourages creative learning and exploration.

The hands-on nature of *TINKER CAMP* brings out the essentiality of science and engineering in everyday settings. Campers will be introduced to working with real tools, like soldering iron, drill, hand-saw, hot glue gun, hammer, etc., under the expert supervision of our Chef Tinkerers.

Apart from learning STEM (Science, Technology, Engineering and Mathematics) topics, *TINKER CAMP* builds a foundation of innovation, social scaffolding, and teamwork for these tinkerers who will one day pave a future of collaboration, sustainable living and confident inventors of society.

### **TARGET AGE GROUP:**

9 – 12 years old

### **DATES:**

06 -07 Dec 2019 (Friday – Saturday)

### **DURATION:**

2 Days, 1 Night: 9:00am (Friday) – 3:00pm (Saturday)

### **COST:**

\$400 per participant (excluding 7% GST)

### **NUMBER OF PARTICIPANTS:**

Minimum: 15 pax

Maximum: 20 pax (Registration closes once we have 20 participants)

### **QUESTIONS:**

E-mail Mr Shah at [Shahrudin\\_KASMURI@science.edu.sg](mailto:Shahrudin_KASMURI@science.edu.sg) or contact him at 6425 2524.

## ITINERARY (1)

### Day 1

TIME	DESCRIPTION
0900	Welcome to Science Centre Singapore
0930 - 1100	<b>Wooden Keychain</b> Like programming or writing, drawing is a skill that lets people express ideas. Unleash your creativity with Inkscape to customise your own wooden keychain and carve it out on a Computer Numerical Control (CNC) machine.
1100 - 1230	<b>DIY Geoboard</b> Create your own Geoboard from scratch using plywood and nails. Use rubber bands to create line segments and polygons and make discoveries on mathematical topics like area, angles, perimeter, fractions, congruency and more.
1230 - 1330	<b>Lunch</b>
1330 - 1530	<b>Wooden Pinball</b> Be a young Mechanical Engineer and create your Pinball Machine that launches a ball and sends it through an obstacle course. Build a challenging and exciting game that will keep people coming back again and again to play.
1530 – 1630	<b>Living Worlds – An Animal Planet Experience</b> Visit the Centre’s year end exhibition which leverages on Animal Planet’s rich video footage to illustrate the impact of human activity on the rich diversity of Earth’s wild places and their inhabitants. Living Worlds also reminds visitors that environmental change begins with the individual - our collective actions have an impact every bit as powerful as that of governments policies and NGOs.
1630 - 1730	<b>NeoPixel - Micro:bit Programming</b> Program the Microbit chipboard to drive NeoPixel LEDs. Display your programming skills by illuminating your Cruller Lamp using this 24 multicolor LEDs. Campers will receive a set of Microbit and Neo Pixel chipboard each to bring home.
1730 - 1830	<b>Dinner</b>
1830 - 2000	<b>Cruller Lamp Shades</b> Make your own lamp shades, lantern, chandelier or table lamp. Craft wooden materials into geometrical shapes and stylishly twisted it resembling a braided torpedo.
2000 - 2030	Night Walk
2030 - 2100	<b>Shower</b>
2100 - 2300	<b>Movie time</b> Be inspired by a journey of friendship, creativity and overcoming challenges.
2300	<b>Catching Zzzzs</b>

## Day 2

TIME	DESCRIPTION
0730 - 0830	<b>Electronics Fun-damentals Workshop</b> Learn about the key electronic components and their functions in a circuit. Understand the essentials of electronics through customising your own flexible LED strip.
0830 - 0930	<b>Wash-up and Breakfast</b>
0930 - 1200	<b>Fun Fair Carnival I</b> Campers will be challenged to create their own Fun Fair games station. Equipped with hands-on skills, campers will create their game stations for an indoor or outdoor carnival.
1200 - 1300	<b>Lunch</b>
1300 - 1430	<b>Fun Fair Carnival II *</b> Step into the world of carnival games developed by our Junior Chef Tinkerers. They will showcase their prototypes of STEAM concepts that has been accumulated throughout the Tinker Camp. Families are invited to join their carnival of joy and try their gaming stations.
1430 - 1500	<b>Award Ceremony</b>
1500	<b>Goodbye Junior Chef Tinkerers</b>

*Note: Programmes are subjected to change due to unforeseen circumstances*

## ITINERARY (2)

*\*Families are invited to engage in the carnival stations. Families are to arrive at 2.00pm. 2 complimentary tickets per participant will be issued. Any additional family members, standard charges to the Centre applies.*

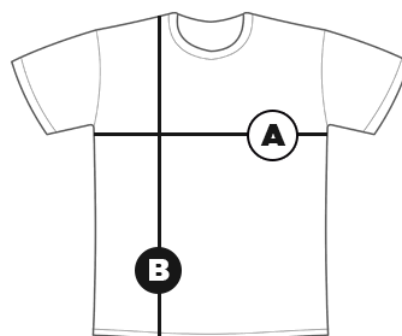
### Terms and Conditions

1. Registration form and cheque can either be mailed to the Science Centre or dropped off at the Visitor Services Centre during office hours by **15 Nov 2019**.
2. Price includes Science Centre admission, all meals and conducted workshops stated in the itinerary.
3. Programme is available on a first-come-first basis and will commence with the minimum of 15 participants. #
4. Confirmation of camp will be made known by **18 Nov 2019** via email or phone.
5. Fees paid are non-refundable after **15 Nov 2019**. However, replacement of participant are permitted.
6. In the event of wet weather, The Tinkering Studio reserves the right to replace affected outdoor programmes with indoor programmes deemed suitable.

### CAMP SHIRT SIZE CHART

Size	Width <b>(A)</b>	Length <b>(B)</b>
<b>XS (3/4)</b>	32 cm	42 cm
<b>S (5/6)</b>	36cm	46 cm
<b>M (7/8)</b>	40 cm	52 cm
<b>L (9/11)</b>	42cm	55 cm
<b>XL (12/14)</b>	45 cm	59 cm

**Tolerance                      1.27 cm                      1.27 cm**



## TINKER CAMP DEC '19 BOOKING FORM

FOR TINKER CAMP PARTICIPANT			
NAME OF PARTICIPANT:			
AGE:	GENDER: M / F	SCHOOL:	
T-SHIRT SIZE: XS / S / M / L / XL		DIET CONSIDERATION & FOOD ALLERGIES: NORMAL / VEGETARIAN / HALAL / OTHERS:	
ALLERGIES AND/OR REQUIRE MEDICATION:			
MEDICAL DECLARATION			
	NO	YES	If Yes, please give details (state medical condition, consulting doctor, current medical condition, etc)
1. Has your child / ward ever been told he/ she had symptoms of or suffered from or received treatment for any health problems such as			
(a) Stroke, high blood pressure, chest discomfort, heart murmur or any related disorder?	<input type="checkbox"/>	<input type="checkbox"/>	
(b) Asthma, chest or breathing complaints?	<input type="checkbox"/>	<input type="checkbox"/>	
(c) Fits or other disorders or disabilities not mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	
(d) Any other illnesses, operation or treatment in the past 5 years not mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Has your child / ward had or been advised to have any diagnostic tests such as:			
(a) X-ray, ECG, ultrasound, biopsy or blood screen?	<input type="checkbox"/>	<input type="checkbox"/>	
(e) Any other tests not mentioned above?	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FOR PARENT/LEGAL GUARDIAN			
NAME:		RELATION TO CHILD:	
HOME NO.:	MOBILE NO.:	EMAIL:	
ADDRESS:		POSTAL CODE:	
<b>Booking and Payment Procedures</b> <ol style="list-style-type: none"> <li>1. Completed booking form should reach us by <b>15 Nov 2019</b>.</li> <li>2. Please email Booking Form to <a href="mailto:shahrudin_kasmuri@science.edu.sg">shahrudin_kasmuri@science.edu.sg</a> and return the original copy with a crossed cheque made payable to <b>Science Centre Board</b> for the sum of SGD 428 (7% GST included) to: <ul style="list-style-type: none"> <li>c/o Shahrudin Kasmuri</li> <li>Science Centre Singapore</li> <li>15 Science Centre Road,</li> <li>Singapore 609081</li> </ul> </li> <li>3. Registration form and cheque can be mailed to the Science Centre or dropped off at the Visitor Services Centre during office hours before <b>15 Nov 2019</b>.</li> </ol>			

### Terms and Conditions

1. Registration form and cheque can either be mailed to the Science Centre or dropped off at the Visitor Services Centre during office hours by **15 Nov 2019**.
2. Price includes Science Centre admission, all meals and conducted workshops stated in the itinerary.
3. Programme is available on a first-come-first basis and will commence with the minimum of 15 participants. #
4. Confirmation of camp will be made known by **18 Nov 2019** via email or phone.
5. Fees paid are non-refundable after **15 Nov 2019**. However, replacement of participant are permitted.
6. In the event of wet weather, The Tinkering Studio reserves the right to replace affected outdoor programmes with indoor programmes deemed suitable.

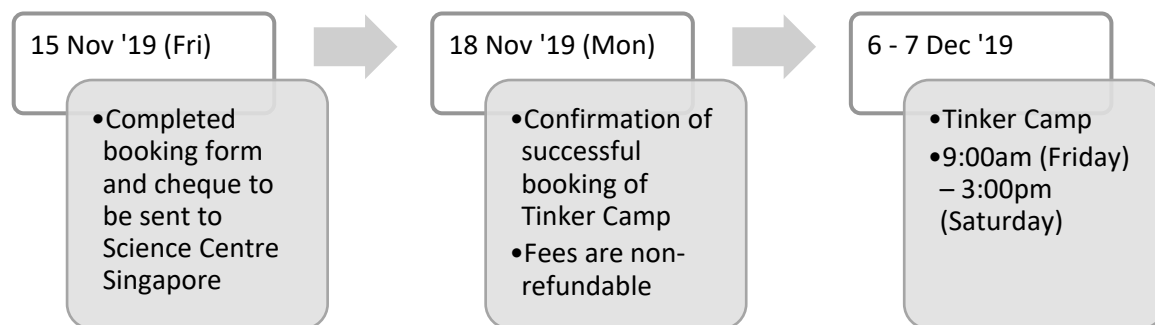
### Cancellation

1. # In the case of cancellation of camp, cheques will be returned.

### Disclaimer

*Any person who takes part in Tinker Camp does so entirely at his/her own risk and shall be deemed to have understood the risks associated with Tinker Camp. Science Centre Singapore, their employees and agents will take all necessary precautions to ensure the safety of the participants but shall **not** be responsible for any death, personal injury or damage howsoever sustained or arising out of his/her participation in Tinker Camp. Science Centre Singapore shall, in any circumstances and at their sole discretion, provide such immediate first aid and/or medical treatment as it shall deem reasonable and at their expense. Any such immediate first aid and/or medical treatment rendered shall **not** be taken as an admission of liability in any way for any personal injury howsoever sustained or arising. Photographs taken during Tinker Camp may be used for future promotional materials (printed/ electronic) by Science Centre Singapore.*

### Summarised timeline of Tinker Camp application



### Parent / Guardian Consent

I, \_\_\_\_\_ (parent / guardian), NRIC/FIN no. \_\_\_\_\_  
acknowledge the information regarding the above mentioned activity and hereby \* **give consent / do not give consent** to his/ her participation for the Tinker Camp held on 6 -7 June 2019. I confirm that I am not aware of any medical conditions (other than those mentioned above) which may prevent my child/ ward from participating fully in all the activities.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date