

B46
Hands-on Workshops –
SDG 12 Responsible Consumption and Production

Workshop title:	Handmade Ice Cream
Workshop owner: (Name of School/ Institution/University/Organization)	Universiti Tunku Abdul Rahman
Description of workshop: (objective, content, etc)	<p><u>Procedures</u></p>  <ol style="list-style-type: none"> 1. Add 1/4 cup sugar, 1/2 cup milk, 1/2 cup cream, and 1/4 teaspoon vanilla to the quart Ziploc bag. Zip that bag up so nothing leaks. 2. Put the 2 cups of ice into the gallon Ziploc bag. 3. Add 1/2 to 3/4 cup salt (sodium chloride) to the gallon Ziploc bag of ice. 4. Place the sealed quart bag inside the gallon bag of ice and salt. Seal the gallon bag securely. 5. Rock the gallon bag from side to side. Hold it at the seal so that the cold ice doesn't freeze your hands instead of your ice cream. You can also use gloves or a cloth to protect your hands, just remember it will be colder than 0 degrees Celsius! 6. Continue to rock the bag for 10-15 minutes or until the contents of the quart bag have solidified. <p><u>Principles</u></p> <p>Water has three states: solid, liquid and gas. Water changes into its solid state when it reaches 0 degrees Celsius (32 degrees Fahrenheit), but if there is Sodium Chloride (NaCl) present, otherwise known as salt, then that temperature drops. That's because salt lowers water's freezing point, which is the freezing point depression.</p> <p>When you're making ice cream, the even lower temperature of the ice and salt mixture, which surrounds the cream and sugar mixture, is cold enough to change the state of the cream from a liquid to a solid.</p>
Age group:	7 – 17 years old

Registration Form

Group size:	1 – 2 persons x 10 group for each demonstration session
Number of sessions & Duration per session:	30 mins per session x 9 sessions per day x 10 groups 1) 9:00 to 9:30 a.m. 2) 10:00 a.m. to 10:30 a.m. 3) 11:00 a.m. to 11:30 a.m. 4) 12:00 p.m. to 1:30 p.m. 5) 1:00 p.m. to 1:30 p.m. 6) 2:00 p.m. to 2:30 p.m. 7) 3:00 p.m. to 3:30 p.m. 8) 4:00 p.m. to 4:30 p.m. 9) 5:00 p.m. to 5:30 p.m.

