



**NIHERST ISTEM CLUB**

**ACADEMIC YEAR 2020-2021 || TERM 2: JAN – MARCH 2021**

**LEARNING OBJECTIVES AND REQUIRED MATERIALS/SUPPLIES**

**7 – 9 YEARS**

The following table details the intended learning outcomes for the term. Recommended materials and supplies are also listed. *In the event that you are not able to provide all the materials, the member can still follow along during the session. Each member will be provided with a booklet containing instructions for each activity and supplemental information. This resource can be used to do or repeat activities independently at a later date.*

**THIS TERM, BEAUTY IS IN THE EYE OF THE BEHOLDER...  
COME JOIN US WHERE ART MEETS STEM SCIENCE ALLOWS US TO SEE ART IN VARIOUS FORMS, FROM OUR  
COLOURFUL CULTURE AND DIVERSITY IN NATURE, TO DESIGNS IN MATHEMATICS, CHEMISTRY AND ENGINEERING.  
THERE'S ART ALL AROUND US, THAT'S A FACT!  
GET READY FOR A FUN FILLED TERM...  
WELCOME TO *ART ATTACK!***

**7 - 9 YEARS**

<b>SESSION</b>	<b>OBJECTIVES</b>	<b>GENERAL MATERIALS</b>
<b>Art in Nature</b> Jan 23 <sup>rd</sup>	At the end of this session, members should be able to: <ul style="list-style-type: none"> <li>• Explain what are patterns</li> <li>• Understand how the brain recognizes patterns</li> <li>• Apply different techniques to create patterns using nature</li> <li>• Explain how rainbows are formed in nature</li> </ul>	CD/DVD, flashlight, white and black paper, water, bowl or tray, glass, a small pocket mirror, Bristol board, poster paints, printed photo of student, glue stick, ruler
<b>Art in Math</b> Jan 30 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Understand what is symmetry and identify where we find symmetry in nature</li> <li>• Analyse the difference between 2D and 3D shapes and geometric patterns</li> <li>• Understand and identify major angles (45, 90, 180, 360) and how to measure them</li> </ul>	Protractor, coloured pencils/markers, Bristol Board, scissors, hole puncher, string/ribbons, glue stick, printable templates provided by NIHERST
<b>Art in Culture</b> Feb 13 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Demonstrate how wire bending is incorporated into Mas making</li> <li>• Identify how colours and textures are integrated into Mas making</li> <li>• Discuss the various components of Carnival in which art is vital</li> </ul>	(1 wheel) metal wire (silver or gold fill), craft pliers, gems or beads, small sequins/ feathers, UHT glue/E6000, face paint, paintbrushes, fishnet stocking, printable templates provided by NIHERST
<b>Art in Engineering</b> Feb 27 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Identify different branches of engineering in which visual processes are required</li> <li>• Understand the engineering design process from concept to prototype</li> <li>• Use the engineering design process to create a pendulum</li> </ul>	Yarn/string, acrylic/watercolour paints, empty small bottles, large garbage bags, scissors, a tripod, a cardboard box or a piece of cardboard, thick solid-coloured straws, scissors, hot glue gun and glue sticks, a ping pong ball, a bowl
<b>Art in Chemistry</b> March 6 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Describe crystals and explain how they are formed</li> <li>• Identify various crystal structures</li> <li>• Understand the concept of mixing colours and creating pigments</li> <li>• Discuss the soap making process</li> <li>• Identify the steps in creating paint</li> </ul>	Clear melt and pour soap base, mixing bowls, spatula/spoon, soap dye/pigment, baking soda, corn starch, citric acid, food colouring, silicon molds, Epsom salts, essential oil of choice, glass jar
<b>Final Session</b> March 20 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Recall all explored concepts and activities during the previous meetings</li> </ul>	n/a