**Note:** Centers can pick any activity from the component given below, one activity per day. On each day children must be given a 30 min break in between the curriculum. Centers can plan the schedule accordingly. Refer to sample schedule given under Summer Camp Guidelines.

**XPLORE SCIENCE:**

| Activity | Description | Materials Needed |
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| Exploring Leaves | 1. Start by taking a walk outdoors and collecting various leaves.<br>2. Snip off the bottom of each leaf stem. Then place each leaf in a glass filled about a third of the way with water.<br>  <br>3. Add red food coloring to the water. | Exploring Leaves |

4. Observe the leaves closely. (You can use a magnifying glass if you have one.) Record your observations of how they look on Day 1 of the experiment.
5. Observe them for the next two days.
6. You should notice the red color move slowly through the leaf.

7. The colored water was moving through the **xylem tubes** of the leaf.
8. Help the students understand that this is how water travel through leaves of plants and help them stay fresh and green.
8. Reference image below.

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| Paper Cup Phones | **Paper Cup Phones**<br><br>Teacher shall …prepare the following a day before: Make a small hole at the back of the paper cup and tie a string or yarn across both the holes in two of the cups. (Each student will get a pair of cups)<br><br>Students can colour it and they can play the game. One student can keep one paper cup near the ear and another child can keep near the mouth. The student can talk and listen through these paper cup phones.<br><br>Speaking into the cup creates sound waves which are converted into vibrations at the bottom of the cup. The vibrations travel along the string and are converted back into sound waves at the other end so your friend can hear what you said. Sound travels through the air but it travels even better through solids such as your cup and string, allowing you to hear sounds that might be too far away when traveling through the air.<br>  | 1. Paper Cups<br>2. String or Yarn<br>3. Pencils<br>4. Crayons |
| Magic Pipe | **Magic Pipe cleaner:** | 1. Pipe cleaners or few paper clips |

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| Cleaner | Teacher shall glue a small magnet to the craft stick.<br>Put some cut pipe cleaner to the empty plastic bottle<br>Teacher shall show how to play with it, sample given below:<br>  <br>Teacher shall explain that magnets attract certain types of metal pulling them close. Since the pipe cleaners have a thin strip of metal, the magnet is able to attract the pieces and pull them around the clear plastic box.<br>Ensure that each student gets a chance to play with it. | 2. Magnet fixed to a craft stick<br>3. Transparent plastic box or small empty distilled bottle |
| Mini Magnet Maze | 1. Teachers can draw a maze using sketch pens on the cardboard or paper plate and keep it ready a day before.<br>2. Using the square shape chart draw a bug or a bee and cut its shape and put a paper clip to it.<br>3. Teachers can place the bee/bug on the maze and hold the magnet below the cardboard/paper plate exactly under the bug/bee. | 1. Thick cardboard or a paper plate.<br>2. A Magnet<br>3. Metal paperclip<br>4. Square shape (5x5 cm) chart<br>5. Metal Paper clip |

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| | 4. As we move the magnet the bee/bug must also move.<br><br>5. Give turn for all the children to try the same and explain how metals are attracted to magnets.<br><br>6. Reference image below.<br><br>  <br><br>  | 6. Sketch pens |
| Blow It Up Balloon | 1. Pour vinegar inside the bottle.<br>2. Fill the balloon with baking soda.<br>3. Now place the tip of the balloon on the tip of the bottle.<br>4. Slowly empty the baking soda from the balloon into the bottle.<br>5. The balloon blows up and becomes big.<br><br>hen vinegar mixes with baking soda, carbon-di-oxide gas is released that enlarges the balloon. | 1. Baking Soda- 1 bottle<br>2. Vinegar<br>3. Plastic Bottle<br>4. Balloons<br>5. Small spoons |

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| Mixing oil and water | 1. Take half a glass of water and mix a few drops of food color to it.<br><br>2. Fill the remaining half with cooking oil.<br><br>3. The oil will float on top of water and there will be a distinctive difference.<br><br>4. Discuss with the children, explaining to them that water is heavier than oil in density and that's why it stays down and oil floats on top of it.<br><br>5. For the students to get more clarity, give each one of them turn to stir the mixture with a spoon.<br><br>6. Although oil seems to mix with water once the stirring stops once again, oil will be found floating on top of the colored water.<br><br>7. Food colouring is optional. This is used only to show the distinction between oil and water clearly to the students.<br><br>8. Reference image given below. | 1. Glass/Jar/ Beaker/Bottle<br>2. Water<br>3. Food Color<br>4. Cooking oil<br>5. Spoon |

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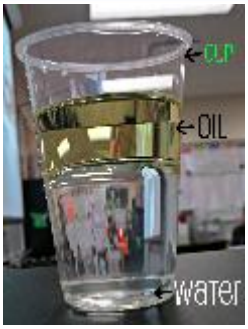
| |  <br>  | |
| Traffic Light Eggs | 1. Teachers shall soak three eggs immersed in vinegar for 24 hours and keep it ready for the experiment.<br>2. The chemical reaction between the calcium carbonate in the egg shell and the acid in the vinegar makes the eggs bouncy.<br>3. Take three glasses and fill them with water.<br>4. Add food color red, orange and green one colour in each glass.<br>5. Add the bouncy eggs (soaked for 24 hours in vinegar) one in each glass and leave it in for one day.<br>6. Removed the eggs from the colored water the following day.<br>7. The traffic light coloured eggs are ready to play.<br>8. Reference image below. | 1. Eggs - 3 nos.<br>2. Glasses<br>3. Water<br>4. Food Colour - Red, Orange, Green<br>5. Vinegar |

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| Blow up a balloon with yeast | 1. Teachers can fill the bottle with about 1 inch height of warm water.<br>2. Help the students add all the yeast in the packet and swirl the bottle for a few seconds.<br>3. Again help the students to add sugar and once swirl the bottle for a few seconds.<br>4. Blow up the balloon a few times to stretch it out then place the neck of the balloon over the neck of the bottle.<br>5. Let the bottle sit in a warm place for about 20 mins.<br>6. The balloon will inflate, as the yeast eats the sugar it release carbon dioxide and the gas fills the balloon. | 1. A packet of yeast<br>2. A small clear bottle - milkshake/soda bottle<br>3. 1 teaspoon of sugar<br>4. Some warm water<br>5. A small balloon |


SUGAR

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| Color Mixing Wheel | 1. On a cardboard draw three concentric circles and cut the circle shape along the outer most circle.<br>2. Draw a line dividing all the three circles into half.<br>2. Give this template to the children.<br>3. Students can colour half of the smallest circle in blue and the other half in yellow.<br>4. They can then colour one of the middle half of the circle in red and the other half in yellow.<br>5. The last circle, half can be coloured with red and the other half with blue.<br>6. Reference link given below.<br>  <br>7. Teachers can then make two holes in the center of the cardboard and help the students put the twine (4 feet length) through the holes.<br>  <br>8. Teachers can help children hold the string on both sides of the disc and make sure that the disc is in | 1. Cardboard<br>2. Scissors<br>3. Twine or yarn<br>3. Crayons<br>4. Scale<br>5. Pencil or Pen |

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| | the center.<br>9. Students can start spinning the disc until the string gets wound up.<br>  <br>10. Once the string on both sides of the disc is twisted, pull the string tight to get a color mixing wheel.<br>  <br>11. Refer to video link below for further clarity.<br><br>https://www.youtube.com/watch?v=37vPrNagz8M#action=share | | |
| Edible bubbles with apple | 1. Teachers can cut the top of the apple and empty out the cores.<br>2. Add one or two tablespoon of juice or water in the apple and ask the students to blow bubbles. These will pop out very soon.<br>3. Next, remove the water/juice and milk in the apple.<br>4. Now ask the students to blow bubbles. The students will be amazed to see the large number of bubbles compared to the earlier try with water. | 1. Apple -2 nos.<br>2. Any fruit Juice/water<br>3. Milk<br>4. Straw | |


Edible!!
Bubble Science
With Apples!