

# EXPLORE SERIES LEADER GUIDE

# **The Explore Series**

Growing as a leader is important for your future, and it also contributes to the experience that children have with you during the program. Your main priority is to engage children so they are building, exploring, and having fun. To make sure children are having the best experience, here is a list of tasks that you can help the Instructor accomplish in each module.



# **Marble Arcade**



## **Marble Arcade: Session 1**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Distribute materials to Gamers as needed, such as Inventor Logs, markers, Marble Arcade Boards, and thin cardboard tracks.
- Assist children with folding thin cardboard tracks.

- Assist young children with filling in their Time Trials Table in their Inventor Log.
- Ensure Gamers' names are written on their Marble Arcade Boards in the space marked "Username."
- End of session: Assist with labeling and storing the Marble Arcade Boards for future sessions.

## **Marble Arcade: Session 2**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Help Gamers locate their Marble Arcade Boards.
- Distribute materials to Gamers as needed, such as Inventor Logs, markers, paper clips, and Expansion Pack materials.
- Assist children with peeling the paper backing from adhesive foam squares.

- Assist younger participants in connecting materials to their Marble Arcade Board.
- Use the glue gun to help Gamers with their designs.
- End of session: Assist with storing the Marble Arcade Boards and reorganize the General Materials for the next session.

#### Marble Arcade: Session 3

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Distribute materials to Gamers as needed, such as Inventor Logs, markers, and Expansion Pack materials.
- Help Gamers connect their clear plastic tubes, as needed.
- Assist children with ways to add friction or slow down their Marble Arcade.
- Use the glue gun to help Gamers with their designs.
- End of session: Assist with storing the Marble Arcade Boards and reorganize the General Materials.

#### Marble Arcade: Session 4

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Distribute materials to Gamers as needed, such as Inventor Logs, markers, and Expansion Pack materials.
- · Help Gamers connect their L-Clips, as needed.
- Assist children in creating twists and turns for their Marble Arcade.
- Use the glue gun to help Gamers with their designs.
- End of session: Assist with storing the Marble Arcade Boards.
- End of session: Reorganize the General Materials.

## **Marble Arcade: Session 5**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Distribute materials to Gamers as needed, such as Inventor Logs, markers, and Expansion Pack materials.
- Help Gamers problem solve how to connect their Marble Arcades and remind them to use the 101 Ways to Marble Arcade ideas.
- Assist children with their glow marbles to ensure they function and stay assembled.
- Use the glue gun to help Gamers with their designs.
- Ensure that all Gamers have their name on their Marble Arcade Board to take home.
- End of session: Reorganize the General Materials.



## NIHF's The Attic



#### NIHF's The Attic: Session 1

- Distribute materials as needed throughout the session, such as Inventor Logs, air-drying clay, and nonhardening clay.
- As needed, assist young children with opening the air-drying clay by cutting or tearing open the packets.
- End of session: Reorganize the General Materials for the next session.

#### NIHF's The Attic: Session 2

- Distribute materials to children as needed throughout the session, such as Inventor Logs, markers and paper straws.
- Assist participants as needed when placing stickers on thaumatropes.
- · Assist groups of participants with A Crafty Character scripts.
- End of session: Reorganize the General Materials for the next session.

## NIHF's The Attic: Session 3

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Before the session: Assist with setup of the Print Making Station. Cover a table with a plastic tablecloth. Place the white copy paper, paper towels, one ink pad of each color, and two foam rollers on the table. Place each of the foam rollers in a separate resealable bag with a little water.
- Help children at the Print Making Station. Close the stamp pads and return foam rollers to resealable bags when not in use.
- Ensure children's names are written on their prints.
- End of session: Reorganize the General Materials for the next session.

## NIHF's The Attic: Session 4

- Distribute materials as needed such as Inventor Logs, markers, and the materials for the Arty Bots.
- · Assist children as needed in assembling their Arty Bot.
- Ensure children's names are written with permanent marker on their Arty Bot.

## NIHF's The Attic: Session 5

- Before the session: Assist with setup of the Spin Art Area.
- Help children at the Spin Art Area. If the adhesive square on top of Arty Bot becomes less sticky, replace it with a piece of looped masking tape.
- Ensure children's names are written on their spin art.



# **Robotic Aquatics**



# **Robotic Aquatics: Session 1**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Before the session: Review the Aqua Shop materials, poster, and Aqua Points system that is in the Inventor Log.
- Assist the Instructor with matching up the right-sized dip cup to fit into each tank's opening (2-ounce and 3-ounce dip cups have been provided).
- Distribute materials to Trainees as needed such as Inventor Logs and markers.
- If there is an odd number of participants, be prepared to partner with a Trainee during the Symbiosis game.
- Assist Trainees with their purchases at the Aqua Shop.
- Write each participant's name on their dip cup using a permanent marker, as well as on the bottom of the tank from which the dip cup was taken (which was matched to the size of the tank opening). Ensure the dip cup is dry before writing on it.
- Assist younger participants in filling out their aquatic animal bio.

- If Instructor has not completed or asks, Take Apart a robotic fish and place it on display at the Aqua Shop:
  - Put on disposable gloves and safety glasses. Use an alcohol swab to clean the glasses first.
  - Remove the battery cover and batteries.
  - Ensure that the batteries remain separate, and not on top of one another for safety reasons.
  - Remove the silicone tail and the tail rod (skip removing the rod if too difficult).
  - Insert the tip of the small screwdriver into the tail opening and pry the two pieces apart (ensure battery cover has been removed).
  - Display the opened Take Apart robotic fish for participants to see. Allow them to test the power of the magnets with a metal component in the fish.
- Check that items in the Aqua Shop are replenished and help prepare any materials needed for the next session.
- End of session: Reorganize the General Materials for the next session.

# **Robotic Aquatics: Session 2**

- If Instructor has not completed or asks, Take Apart a robotic fish and place it on display at the Aqua Shop. Allow children to check out its components.
- Distribute materials to Trainees as needed such as Inventor Logs, markers, and Tank Clings.
- Assist at the Aqua Shop as Trainees purchase materials. Cut and refill items such as leaves and flowers.
- Ensure Trainees store their jellyfish, dip cup, and tanks appropriately.
- End of session: Reorganize the Aqua Shop and General Materials for the next session.

# **Robotic Aquatics: Session 3**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Distribute materials to Trainees as needed such as Inventor Logs, markers, and wax sticks.
- Assist at the Aqua Shop as Trainees purchase materials.
- Ensure Trainees store their jellyfish habitats appropriately.
- End of session: Reorganize the Aqua Shop and General Materials for the next session.



# **Robotic Aquatics**



# **Robotic Aquatics: Session 4**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Before the session: Fold the boxes for the Agua Shop.
- Assist at the Aqua Shop as Trainees purchase materials.
- Prepare to send the tanks home with children by completing the following:
  - Make sure the jellyfish is in the tank and that the dip cup light is on top. Tape the light (dip cup with glow marble) on top so that no water splashes out.
  - Place a Take Apart robotic fish in the dip cup for children to take home.

- Ensure children's names are written on their Aqua Innovation prototypes.
- End of session: Reorganize the Aqua Shop and General Materials for the next session.

# **Robotic Aquatics: Session 5**

- Help Trainees take turns safely flinging a stretchy fish at the Target Market poster.
- Assist participants with filling out their Pitch Details in the Inventor Log.
- End of session: Reorganize the Aqua Shop and General Materials for the next session.



# **Spacecation**



## **Spacecation: Session 1**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Before the session: Assist with preparing items for the General Materials.
- Distribute materials to children as needed, such as Inventor Logs and markers.
- Use the glue gun to help children with their Spacepacks.
- Ensure children's names are written on their Inventor Logs and Spacepacks.
- End of session: Reorganize the General Materials for the next session.

## **Spacecation: Session 2**

- Before the session: Tear strips of masking tape so that each participant gets two pieces that are approximately 4-5 inches long.
- Before the session: Become familiar with the assembly of both versions of the Astro-Arm and review the troubleshooting tips with the Instructor.
- Distribute materials to Spacecationers as needed, such as markers and Astro-Arm Assembly materials.
- Assist Spacecationers as they assemble their Astro-Arms.
- Ensure children's names are written on their Astro-Arms.
- End of session: Reorganize the General Materials for the next session.

## **Spacecation: Session 3**

- Before the session: Tear strips of masking tape for children to take throughout the session.
- Before the session: Assist with setting up the different zones as needed by the Instructor.
- Monitor Spacecationers in the Spacepack Zone and use the glue gun to help them modify their Spacepacks as needed.
- End of session: Reorganize the General Materials for the next session.

## **Spacecation: Session 4**

- Before the session: Assist with setup as needed by the Instructor.
- Distribute materials to Spacecationers as needed, such as Inventor Logs, markers, glow stones, water cups, and craft sticks.
- Ensure children wash their hands after interacting with the Cryovolcanoes.
- End of session: After each class, save the craft sticks and steam pans for use with the next class and dispose of the Cryovolcanoes (i.e., bowl, cup, snow, and pony beads) in the garbage.

## **Spacecation: Session 5**

- Before the session: Assist with setup as needed by the Instructor.
- Help Spacecationers rotate positions during the Hydrolysis Game.
- End of session: Place the H and O sponge pieces back in the aluminum steam pans face down for the next session.