

ILLUMINATE SERIES LEADER GUIDE

The Illuminate Series

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

Operation: HydroDrop™



Session 1

- Before the session: Assist with setting aside one bot per participant for their Lab-on-Wheels.
- Assist the <u>Primary</u> participants with preloosening the three deep-set screws on the underside of the Take Apart Bots using a short, wide screwdriver.
- Identify a box from the Inventor Supplies and use a permanent marker to label it, "Take Apart Parts."

- Assist the participants with wrapping their Lab Scene around their bot.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- End of session: Assist the participants with storing their Labs-on-Wheels in the designated area.

Session 2

- Assist with prefolding boxes for the participants.
- Pretear the adhesive squares into individual pieces along the perforated line.
- Cut the green construction paper in half widthwise.
- · Cut each clay stick into 10 pieces.
- Assist with preparing materials.

- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Use the glue gun to operate and customize the prototypes.
- End of session: Assist the participants with storing their Labs-on-Wheels in the designated area. Unplug the glue gun.

Session 3

- Tear the aluminum foil into approximately 6-inch sheets.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Fill one deli container one-third of the way with water to replenish the Water Samples after each session.
- Use the glue gun to operate and customize the prototypes.
- End of session: Assist the participants with storing their Labs-on-Wheels in the designated area. Unplug the glue guns.

Session 4

- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Use the glue gun to operate and customize the prototypes.
- End of session: Assist the participants with storing their Labs-on-Wheels in the designated area. Unplug the glue gun.

- Before the session: Assist with crumpling 50 sheets of copy paper.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Use the glue gun to operate and customize the materials.
- End of session: Ensure the participants gather all of their Operation: HydroDrop materials to take home. Unplug the glue gun.



Let's Glow™



Session 1

- Before the session: Assist, if not already attached, with sliding each fiber optic bundle onto the end of a finger light.
- · Assist the participants with folding their Glow Box.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- End of session: Assist the participants with storing their Glow Boxes in the designated area.

Session 2

- Pretear the adhesive squares into individual pieces along the perforated lines to make them readily available for the children.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Tear three strips of masking tape per child, and attach them to the edge of tables or desks for the children to use when attaching their circuit board to the Glow Box.
- · Assist the participants with wiring their Glow Box.
- End of session: Assist the participants with storing their Glow Boxes in the designated area.

Session 3

- Cut and fold the Refraction Station Table Tent Cards. Secure the bottoms with tape if needed.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Assist with the set up of the Refraction Stations: Magnify and Search Station, Light and Color Station, Image Flipping Station, and Bending Color Station.
- · Assist the participants at the Refraction Stations.
- End of session: Assist the participants with storing their Glow Boxes in the designated area.

Session 4

- Before the session: Assist the Instructor with setting up classroom workstations.
- Assist with cutting the drop cloth into pieces to the cover work areas.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- · Assist with placing materials at each work station.

- If the participants need assistance getting the liquid out of the test tubes in Activity One, pour the test tube liquid back into the cup.
- After Activity One, empty the test tubes by disposing the soaked pom-poms in the garbage. Set the test tubes aside for the next class.
- End of session: Assist the participants with storing their Glow Boxes in the designated area.

- Before the session: If not already completed, cover work surfaces with a drop cloth for use with the neon chalk markers.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- End of the session: Ensure the participants gather all of their Let's Glow materials to take home.

In the Game™



Session 1

- Distribute materials as needed throughout the session, such as Inventor Logs, markers, Game Boards, adhesive squares, and sponge balls.
- Assist the participants with making observations in the Rolling Zones and Drop Zones.
- End of session: Assist the participants with storing their Game Boards in the designated area. Ensure the children's names are written on their Game Boards.

Session 2

- Before the session: Help sort and prepare materials as needed, such as cutting the netting, ribbon, and adhesive foam sheets.
- Distribute materials as needed throughout the session, such as Inventor Logs, markers, and Game Boards.
- Use the glue gun to help the children customize their Game Board.
- End of session: Assist the participants with storing their Game Boards in the designated area. Reorganize the General Materials for the next class and unplug the glue gun.

Session 3

- Distribute materials as needed throughout the session, such as Inventor Logs, markers, and foam balls.
- After the PSI experiment, collect the syringes and plastic caps.
- Use the glue gun to help the children customize their Game Board.
- End of session: Assist the participants with storing their Game Boards in the designated area. Reorganize the General Materials for the next class and unplug the glue gun.

Session 4

- Distribute materials as needed throughout the session, such as Inventor Logs, markers, and impact lights.
- Assist the younger participants with writing their brand name in their Inventor Log.
- Use the glue gun to help the participants create their sports equipment.
- End of session: Assist the participants with storing their Game Boards in the designated area. Reorganize the General Materials for the next class and unplug the glue gun.

- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Distribute one random Quality Card to each participant.
- Distribute one carefully chosen Recognition Card to each participant to help acknowledge their efforts throughout the program.
- Use the glue gun to help the participants add their finishing touches onto their inventions.
- Assist the older participants with creating their acceptance speech.
- End of session: Ensure the children gather all of their In the Game materials to take home and unplug the glue gun.



Prototyping Studio™



Session 1

- Before the session: Pretear strips of masking tape and duct tape for the children to take throughout the session.
- Prepare the General Materials by laying out the following items on a surface for the children to access: duct tape, markers, masking tape, and scissors.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Assist the Instructor with creating one Rapid Prototyping Bag for each team per class.
- Be prepared to distribute the bags during the "Rapid Round Challenge: In the Garage" video when the video says to distribute them.
- · Cut the paper plates in half.
- Assist at the Prototyping Tool Station.
- End of session: Assist the participants with storing their prototypes and toolboxes in the designated area.
 Reorganize the General Materials for the next class.

Session 2

- Assist with cutting the sheets of colored dot stickers so that every team can receive two dot stickers in their Rapid Prototyping Bags.
- Assist the Instructor with creating one Rapid Prototyping Bag for each team per class.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Assist at the Prototyping Tool Station.
- End of session: Assist the participants with storing their prototypes and toolboxes in the designated area. Reorganize the General Materials for the next class.

Session 3

- Before the session: Pretear three pieces of masking tape per team, and place them on the edge of desks.
- Assist the Instructor with creating one Rapid Prototyping Bag for each team per class.
- Assist at the Prototyping Tool Station.

- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- End of session: Assist the participants with storing their prototypes and toolboxes in the designated area. Reorganize the General Materials for the next class.

Session 4

- Before the session: Assist the Instructor with creating one Rapid Prototyping Bag for each team per class.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- Assist at the Prototyping Tool Station.

 End of session: Assist the participants with storing their prototypes and toolbox in the designated area for their class. Save the deli container and aluminum foil sheets to reuse in future sessions.

- Before the session: Assist the Instructor with creating one Rapid Prototyping Bag for each team per class.
- Place all the markers in a deli container. Cover the container with aluminum foil sheets from previous sessions so the children cannot see what is inside the container.
- Distribute materials as needed throughout the session, such as Inventor Logs and markers.
- End of session: Ensure the children gather all of their Prototyping Studio materials to take home.