

SPHERO SOCCER ROBOTICS SOCCER CLUB

Emily Watson | Stephanie Barrett
San Bernardino County 4-H

Description & Purpose

This curriculum gives realistic soccer practices leading up to a tournament with the use of Sphero Bolts. The curriculum is designed to have one soccer practice a week. Each lesson has three activities that mimic soccer practice. These activities are meant to build soccer, critical thinking, teamwork, and leadership skills. Members will develop these skills over time.

These types of skills take time. While there are 6 lessons, they can be done in the time frame that fits the needs of your members. The age and skill levels will be different. If needed, repeat activities until all members are in the same skill range. Add extra practices when needed if scheduling and time permits.





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Practice 1: Learning Curve

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- 6 cones or markers of some sort
- Dice



What to expect in lesson 1:

Staff will explain the concept of the robotics tournament. We will be holding practices and then will meet to compete against other schools. The key to a successful tournament is practice and working as a team.

Some youth members will be able to complete these activities quicker than others. Use this opportunity to have those youth mentor and grow their leadership skills by working with the youth who are having a harder time grasping the concepts.

Before the lessons start, it is better for staff to download and install the Sphero app on the device that the youth members will be using.

Activity 1: Meet the Bolts:

1. Staff will go over the rules of using the bolts. This varies from site to site. This can include not running, being respectful, no bullying, etc.
2. Staff will hand out devices and have members install the app if necessary.
3. Youth members will then connect to a bolt.
4. Once the youth members have connected to their bolts, give them about 5 minutes to get used to controlling their bolts and getting to know how to track their bolts.
5. Staff will go over all the basic commands, how to change the colors, speed control, how to find the bolt they are connected too, etc

Activity 2: Move it, Move it

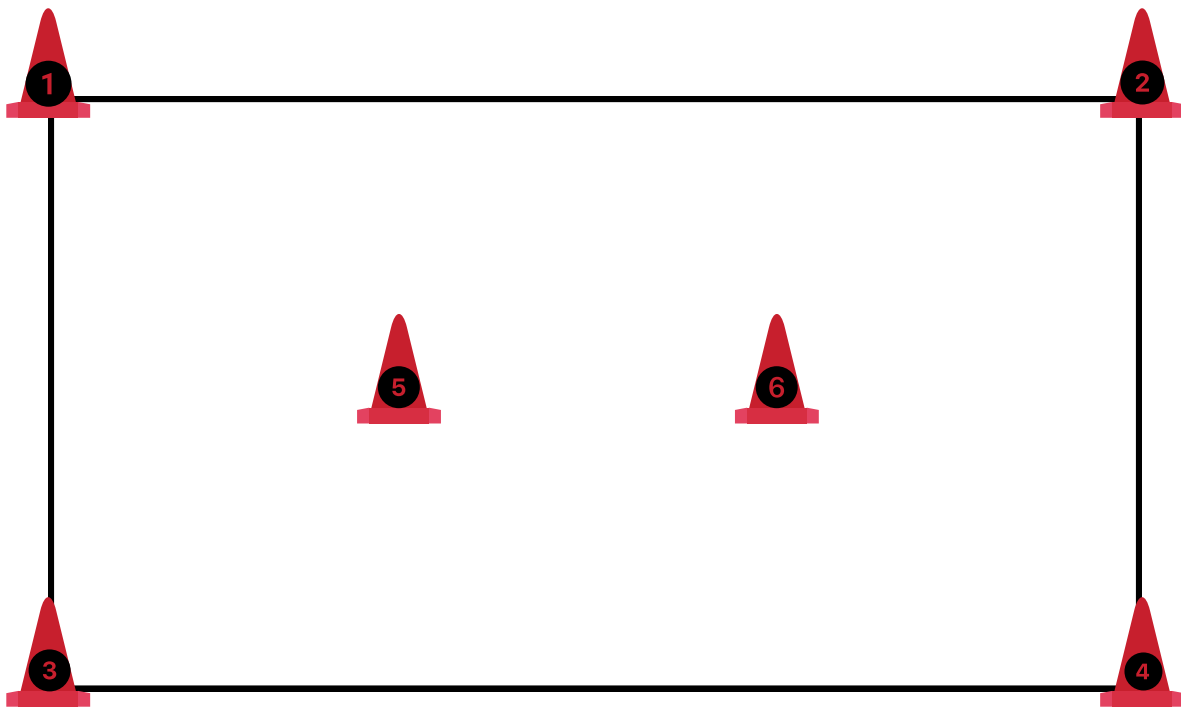
1. Staff will place lanes on the floor for each youth member. This can be done with masking tape, or string/rope.
2. Have the youth members and their bolts stand at one end of the lane.
3. They will practice going forward and backward in their lanes.
4. Once all the youth members are able to stay in their lanes, have the youth members race to the end of the lanes.
5. Have them race to the end of the lanes and back to the beginning.





Activity 3: Bolts in the Corner:

1. Staff will set up the soccer mat or create a rectangular area with masking tape.
2. Place cones or placement markers in the corners of the mat or rectangular area. Place the remaining 2 cones or placement markers somewhere in the field of play. (See example below)
3. Number all the markers with numbers one through six.
4. Youth members will place their bolts in the play area.
5. Staff will have members go to any cone or placement marker.
6. Staff will then roll the dice and shout out the number. The members and their bolts who are at the number that was rolled are out.
7. Members will then move their bolts to another cone or placement marker.
8. Once the members are at a new cone or placement marker, staff will then roll the dice and shout out the number that was rolled.
9. The game will continue until there is one member and their bolt left.





Practice 2 :Controlling the Ball

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- Numbered Ping Pong Balls; 1 per member
- Goals
- Pool noodles



What to expect in lesson 2:

In Lesson 2, the youth members will learn how to control the soccer ball. There will be 3 activities that require the ping pong balls. There are going to be two different types of skills. The key to success in these activities will be to give time to the youth members. It is ok for the practice and activities to be split up over several days if needed.

The first type of skills are going to be how to use the Sphero Bolts to control the ping pong balls. Some youth members are going to take longer depending on their age and skill level. This will take some patience on the staff's part to ensure that everyone has a great time. It's important to let them learn and make mistakes, but not be uncontrolled in their time using the Sphero Bolts.

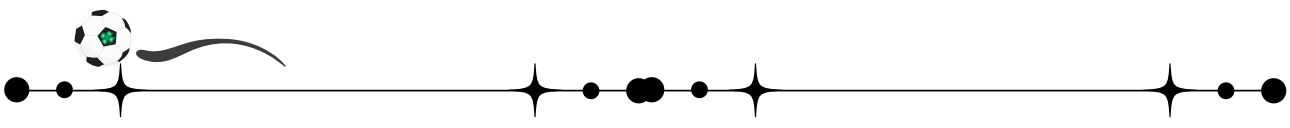
The second skill set is going to be SEL. Youth members will have to practice self-management, social awareness, and responsible decision-making. Youth members will need to practice how to regulate their frustrations, and how to cheer each other on. If a youth member is excelling in an activity, have them pair up with someone who is struggling.

Activity 1: Keep Your Eye On the Ball:

1. Staff will set up the sphero mat or rectangular area. Place pool noodles or something similar to keep the ping pong balls and spheros on the mat or area. Make lanes for each member with the masking tape. (see example 1)
2. Staff will go over the rules of using the bolts. This varies from site to site. This can include not running, being respectful, no bullying, etc.
3. Staff will hand out devices and have members connect to a bolt.
4. Each member will get a ping pong ball.
5. Have each member set the ping pong in front of their bolts in a lane.
6. Have them practice moving the ping pong ball to the end of the lane. Explain that it you have more control with smaller taps from the bolt. The goal is to get the ball to the end of your lane while staying in the lane.

Some youth members may have a hard time getting their ball to the end of the lane. This is a good time to remind youth to keep track of their emotions. When they feel like they need a break or to calm down, they can have the space to reset. It's not on the supply list, but a cool-down area or table with drawing items, calm down jar, and playdoh. Once they calm down, they can return to the activity





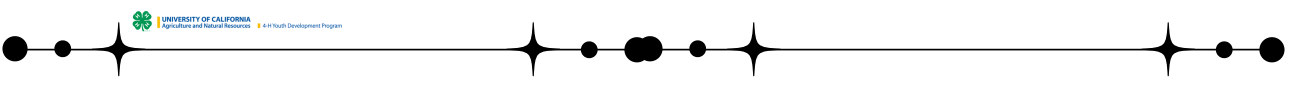
Example 1

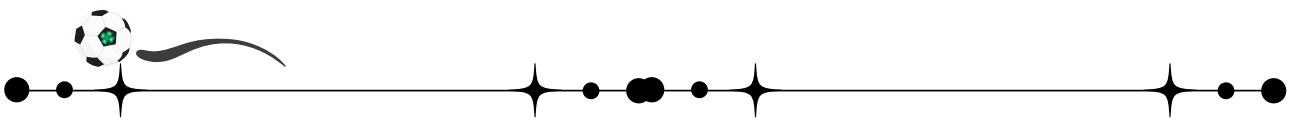


Activity 2: Shooting for the goal

1. Staff will set up the soccer mat or create a rectangular area with masking tape. There should be a line for each member and their bolt. Place a goal at one end of the mat.
2. Each member should have a bolt and a ping-pong ball.
3. Each member will get their ball to the end of the lane and then try to make a goal. (see example 2)
4. Have members change lanes to be able to make a goal at different angles.

Example 2

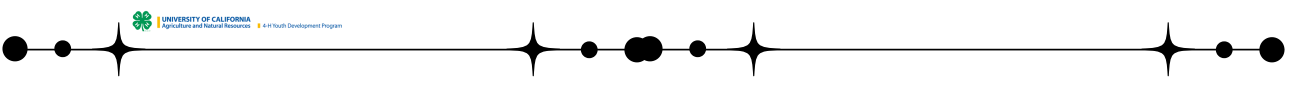
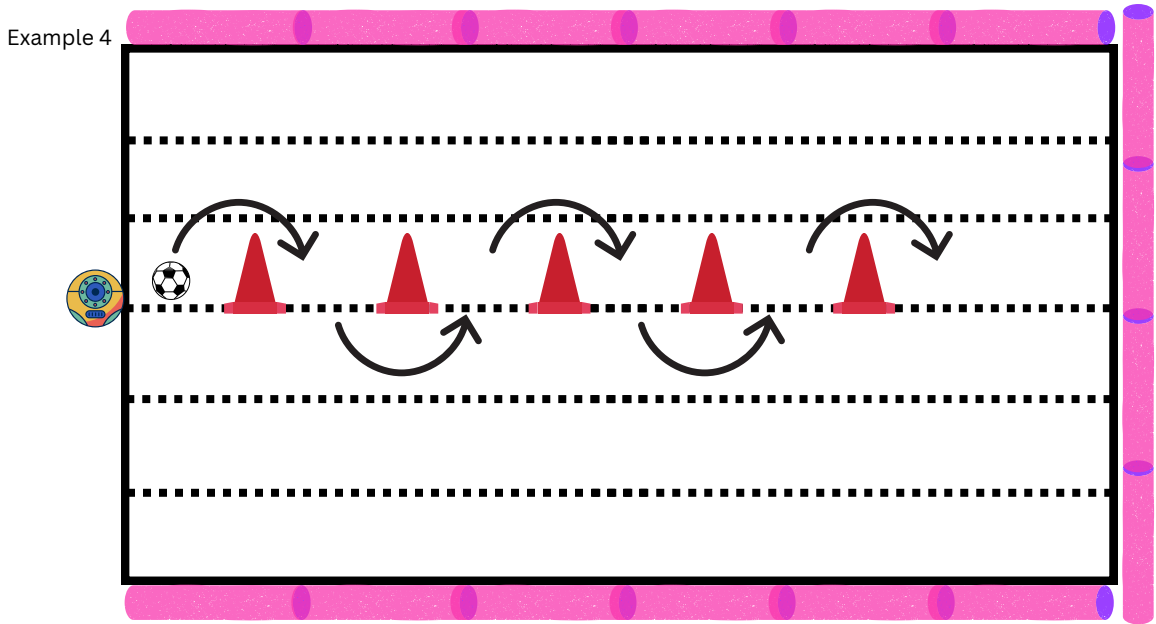
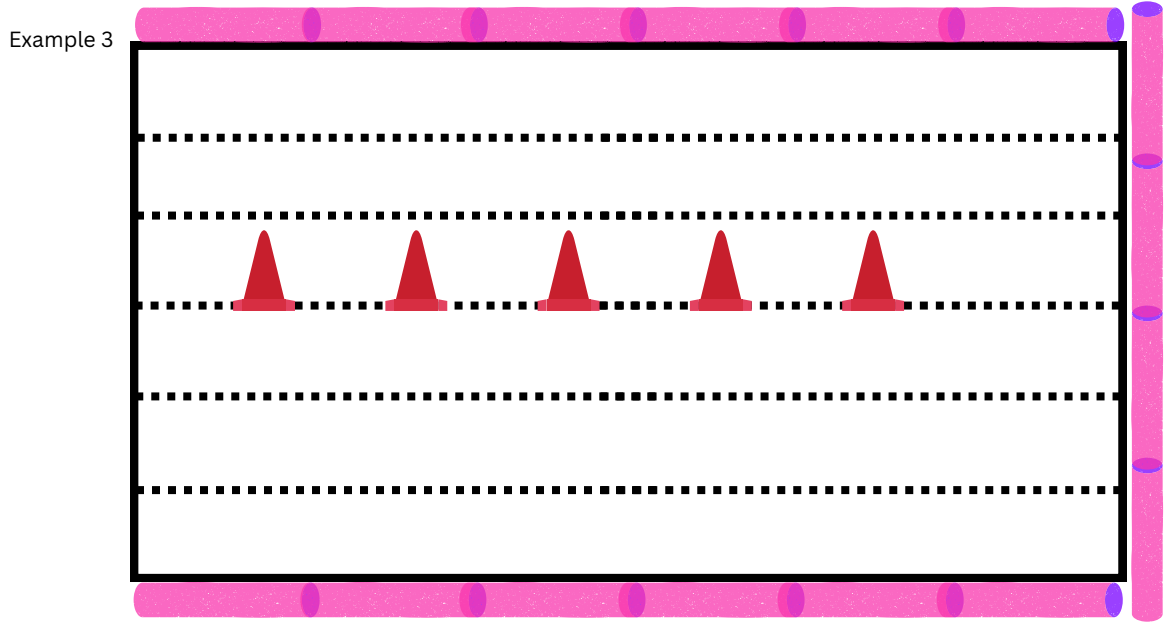




Activity 3: Bob and Weave

1. Staff will set up the sphero mat or rectangular area. Set up the cones in a line. (see example 3)
2. Have youth members line up with their bolts and their ping pong balls.
3. Members will practice moving their ping pong balls between the cones. (see example 4)

Alternative set up: Set up markers of some sort in the middle of each member's lane. Make sure each member knows the number on their ping pong ball so they can keep track of their own ball.





Practice 3: Passing

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- Cones or markers of some sort
- Ping Pong Balls
- Pool Noodles
- Goals

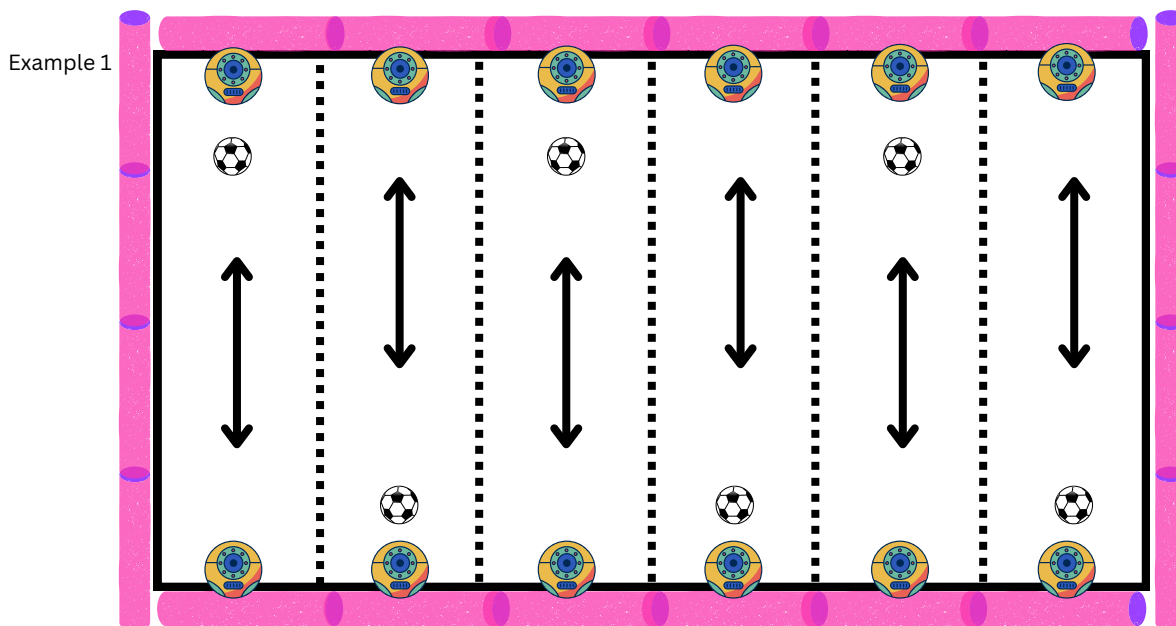


What to expect in lesson 3:

Lesson 3 will revolve around teamwork. For all 3 activities, youth members will be working with partners. They will work on teamwork skills as well as Sphero Skills. Make sure youth stay respectful with their partners and other teams. Encourage members to use their critical thinking skills to come up with different techniques on how to accomplish the activities. Let them discuss with other teams who are struggling with moving their ping pong balls.

Activity 1: Teamwork Makes the Dreamwork:

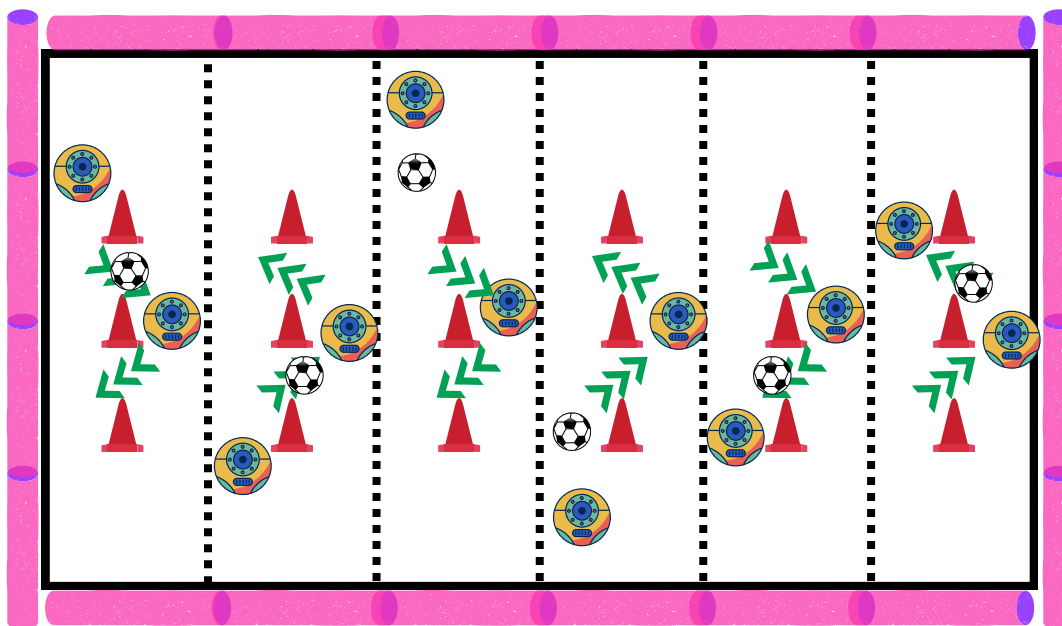
1. Staff will set up the sphero mat or rectangular area with tape. Staff members will create lanes from short side to short side. (see example 1)
2. Staff will go over the rules of using the bolts. This varies from site to site. This can include not running, being respectful, no bullying, etc.
3. Staff will hand out devices, and bolts.
4. Have the youth members pair up into teams of two and give each team a ping pong ball.
5. Teams will place themselves one member on each end of one lane.
6. Have the team members practice kicking their balls back and forth to each other. This will take some time and practice.



Activity 2: All About the Kicks

1. Staff will set up the sphero mat or rectangular area with tape. Place lanes in play area from short side to short side.
2. Staff will place coins or markers in each lane. (see example 2)
3. Youth members will practice passing the ball between the cones.
4. Have the youth members pass the ball between the cones without going through the cones. They should stay on one side of the cones as much as possible.
5. Once the members have their control done, encourage them to try to go through the cones as fast as they can.

Example 2

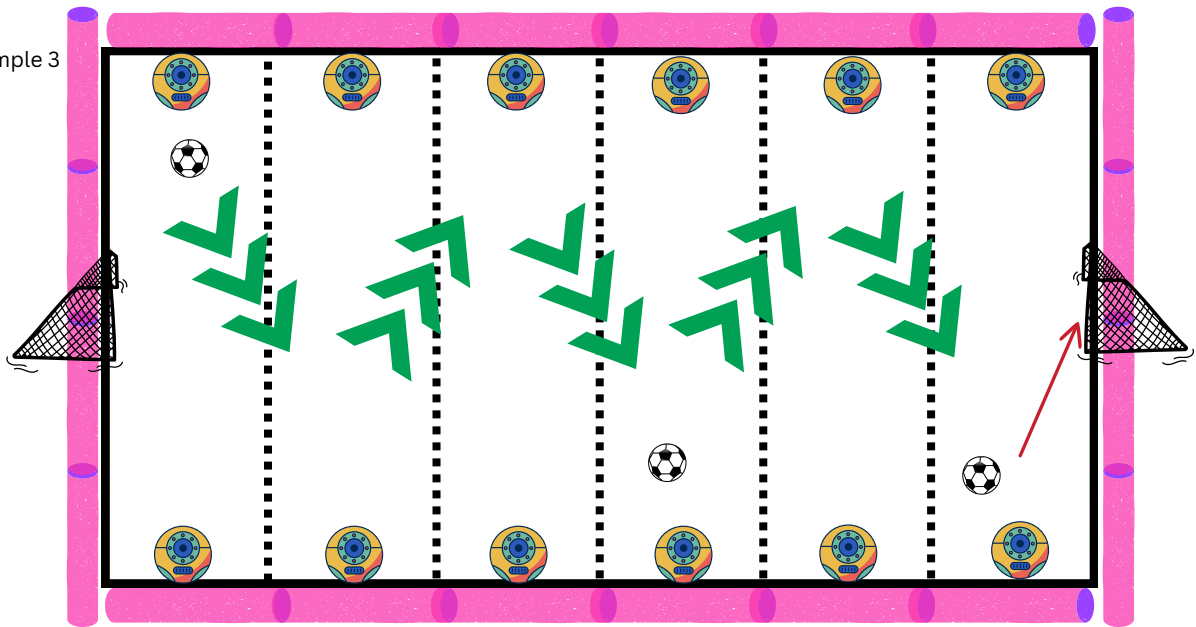


Activity 3: Fast and Furious:

1. Staff will set up the soccer mat or create a rectangular area with masking tape. Place 2 goals, one at each end of the play area.
2. You need to make lanes from short side to short side. (see example 3)
3. Have members line up at each end of the lanes.
4. Place one ping pong ball in one corner.
5. Members will practice passing the ball in a diagonal direction to the member on the other side of the playing field.
6. The ball will continue to get to be passed back and forth till it reaches the end of the play area.
7. The member at the end will shoot the ball into the goal.
8. The ball will then go to the other side that didn't pass the ball. They will repeat steps 4-7.
9. As they gain their skills, have them try go pass the ball faster each time.



Example 3



Tips:

- Have members rotate on their own side so that everyone has a change to score the ball.
- Have a calm down area for those that are getting frustrated easily.
- Let other members develop their leadership skills by helping those members that are struggling.
- Take breaks as needed.





Practice 4: Defense

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- Ping Pong balls
- Goals
- Optional: hula hoops



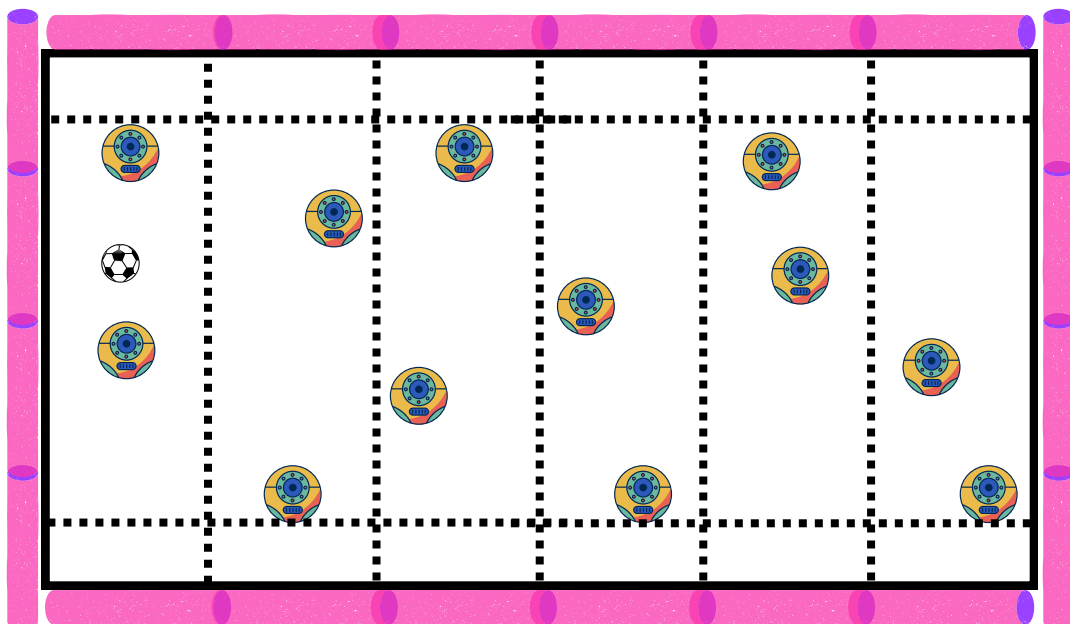
What to expect in lesson 4:

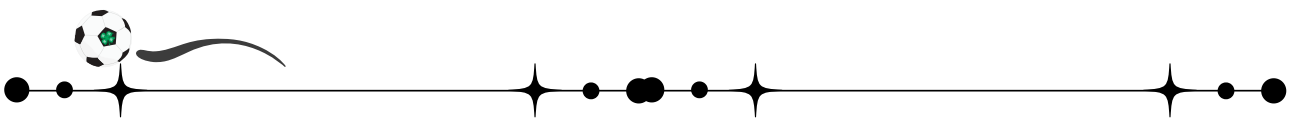
In this lesson, youth members will primarily be working in pairs or groups. These lesson activities are based on teamwork. The focus is to be able to defend the goal. You will need goals for each team to practice their defense. These can be done with markers or cones. The area of play for this lesson will be bigger than the sphero mat, so make any necessary accommodations.

Activity 1: Head On:

1. Staff will set up the sphero mat or rectangular area. Place pool noodles or something similar to keep the ping pong balls and spheros on the mat or area. Make lanes for each member with the masking tape. (see example 1)
2. Staff will go over the rules of using the bolts. This varies from site to site. This can include not running, being respectful, no bullying, etc.
3. Staff will hand out devices and have members connect to a bolt.
4. Members will partner up and receive a ball.
5. One member will be the goalie, one member will be the striker.
6. The striker will place the ball in their lane and try to get the ball in the goal.
7. Members will take turns being the goalie and striker.
8. Have members try different angles and speeds.

Example 1

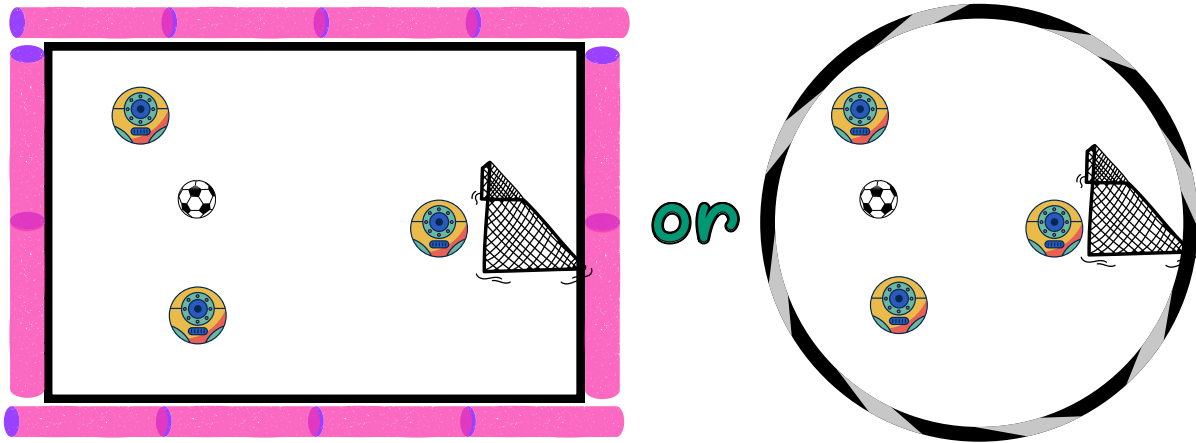




Activity 2: Switch it up

1. Staff will have members get in groups of 3. Each group of 3 will get a ping pong ball and a goal.
2. One member will be the the goalie, the other two will try to score a goal. (see example 2.)
3. The 2 remaining members will pass the ball once between them and try to score a goal.
4. The players will rotate so that everyone can be a goalie.
5. Once members have that down, have them pass the ball between them 2 times before they make a goal.

Example 2



Activity 3: Block the Goal

1. Staff will set up the sphero mat or create a rectangular area with masking tape.
2. Place goals at each of the short end of the mat. (see example 3)
3. Have members pair into groups of 6. Each group will get 1 ping pong ball.
4. One member will be the goalie. 3 members will be in a line in front of the goalie. These will be the defenders. 2 members will start on either side of the center circle. These will be the offense players. They will be trying to score a goal.
5. Members who play offense will start off by passing the ball to each other.
6. Once the ball has been passed once, the goal is to get it past the defenders.
7. The defenders should try to get the ball back to the center circle.
8. It's important to rotate positions every play so that every member has the opportunity to play each position.



Example 3



Tips:

- Divide the mat or play area into two different playing fields.
- Encourage members to work as a team.
- The practice lessons will get increasingly harder as the weeks go by. Do not feel the need to move on until the members feel confident in their skills.
- If there is enough room, create two playing fields.





Practice 5: Making Moves

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- Paper
- pencils/pens



What to expect in lesson 5:

Staff will have the kids practice making plays for a game. This will take team work and leadership skills. The first lesson will not require the Sphero bolts. These plays are what the remaining practices and scrimmage games in the last lesson will be about. Lesson 5 will have 4 different activities.

Activity 1: On the Offense:

1. Staff will group the members into teams of 6.
2. Each team will need paper and pencils or pens. The paper can be either plain paper or notebook paper.
3. The teams will then go to their huddle and make 4 plays to which their main objective will be to score a goal. One player will be the goalie.
4. Their first play will be passing the ball 2 times before attempting to score a goal.
5. The second play will be passing the ball 3 times before attempting to score a goal.
6. The other 2 plays are up to the teams. However, all 4 plays need to be different.

Activity 2: Onward to the Goal

1. Staff will set up 2 areas of play, one for each of the teams. This can be on Sphero mats or a rectangular space marked out with masking tape.
2. Each member will get their device and a bolt and connect them.
3. Members will practice their plays.
4. They will run through each play at least twice.
5. Let them decide if they will rotate players so that everyone plays goalie once or if one player wants to remain as goalie.





Activity 3: Stopping is the Goal:

1. Staff will group the members into teams of 6 without the sphero bolts or devices.
2. Each team will need paper and pencils or pens. The paper can be either plain paper or notebook paper.
3. The teams will then go to their huddle and make 4 plays to which their main objective will be to protect the goal.
4. Ask the members to think about the following questions:
 - a. How will the opponent shoot on the net?
 - b. Does the opponent have any support they might pass to?
 - c. How might the opponent's fellow strikers support them?
 - d. How might the opponent's fellow strikers shoot on the net?
5. The goal is to make plays for what they think the opposing team might do.
6. Here are a few tips when making plays:
 - a. Make sure to keep the defense player between the strikers and the net at all times.
 - b. Angle the bolts so that the ball goes back past the center circle.
 - c. Work as a team to put pressure on any opponent with the ball.

Activity 4: Defensive Line

1. Staff will set up 2 areas of play, one for each of the teams. This can be on Sphero mats or a rectangular space marked out with masking tape.
2. Each member will get their device and a bolt and connect them.
3. Members will pick one goalie, 3 defensive players, and 2 strikers.
4. Members will practice their plays.
5. They will run through each play at least twice.
6. Let them decide if they will rotate players so that everyone plays goalie once or if one player wants to remain as goalie.





Practice 6: Game Time

Supplies:

- Sphero bots
- Soccer mat
- Tablets/Chromebooks/Phones
- Masking Tape
- Play Notes
- Ping pong ball
- Timer



What to expect in Lesson 6:

In Lesson 6, the members will play a scrimmage game using their plays that they made in Lesson 5. The activities for this lesson will be broken up between scrimmage play and reflection discussions. Take this time to recharge the bolts if necessary.

Activity 1: 1st half:

1. Staff will set up the sphero mat or rectangular area of play with masking tape. The area needs to have 2 goals and a center circle and halfway line.
2. Staff will go over the rules of using the bolts. This varies from site to site. This can include not running, being respectful, no bullying, etc.
3. Staff will hand out devices and have members connect to their bolts.
4. Members will gather into their teams. There needs to be 1 goalie and 5 players. The player position will depend on the plays that they came up with.
5. Two teams will play a scrimmage for 20 minutes.

Activity 2: Half Time:

1. Staff will have members charge their bolts.
2. Members will discuss whether their plays worked or didn't. This can be in a large group or in teams.
3. Have them discuss in their teams what changes they can do to win the game.

Activity 3: 2nd half:

1. Staff will hand out devices and have members connect to their bolts.
2. Members will gather into their teams. There needs to be 1 goalie and 5 players. The player position will depend on the plays that they came up with.
3. Two teams will play a scrimmage for 20 minutes.
4. At the end, the team with the most goals win.

