



### Game #3 - Recovery (Middle School)

The team with the highest point total from a 5-minute recovery run wins the recovery game. If multiple teams have the maximum number of points, the team with the lowest time wins. For this game it is recommended that a pencil or hook be fitted to the vehicle in order to move the rings.

#### The Structure of the Recovery Game

The recovery game is played in a partitioned swim lane that is 7 ft by 5 ft. As shown in Figure 1, Game #3 has a structure supporting three 6-in diameter rings (“Sun Splash” dive rings; UPC 34261 92110 1). This structure will be weighed down and sit on the pool bottom. Within the 25-minute time block allocated for each team as many recovery runs can be tried. An official recovery run is limited to 5 minutes. Points for each official run are awarded by moving the rings off the submerged structure, and additional points are awarded for placing each ring into a nearby 6-quart plastic container that is weighed down to sit on the pool bottom. Each recovery run will be scored by adding the total points associated with each ring. The pink ring has a mass of  $42 \pm 1$  g. The green ring has a mass of  $47 \pm 1$  g. The blue ring has a mass of  $47 \pm 1$  g; however, the blue ring has two 13 g steel washers attached giving it a total mass of 73 g. Points associated with each ring are summarized in Table 1. The best score for each team will be entered for the competition. If a team attains the maximum point total (i.e., 16), then the time taken to attain that score will also be entered as a tie-breaker for the competition. Teams are not permitted to exceed the 25-minute time allocation.

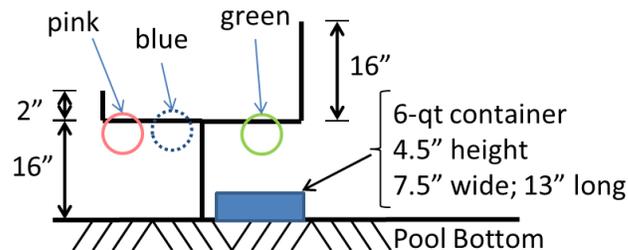


Figure 1 – Recovery game – starting structure.

Table 1 - Scoring for Recovery game.

Ring	Mass (g)	Points		
		Off structure	Container	Total
Outside, short pole (pink)	42	1	1	2
Long pole (green)	47	4	2	6
Inside, short pole (blue)	73	5	3	8
Maximum points =				16

## Game Rules:

- Participants are not allowed in the pool.
- The SeaPerch MUST touch the wall at the start of the game, an operator must hold the SeaPerch in place until the start signal is given. If a team has a “false start” (defined as the SeaPerch has left the wall before the start signal), a restart is required.
- The team announces to the lane referee that they are ready.
- Teams may perform as many runs as possible within the 25-minute time allocation.
- A run will last for a maximum of **5 minutes**. A stop signal will be provided at 5 minutes; at this time, all operators must place the ROV control boxes and tether cables on the ground and the score will be computed.
- A run is also complete when all 3 rings are in the plastic container. The clock will stop when the third ring is disconnected from the SeaPerch and in the container.
- Runs that are not completed when the 25-minute allocation expires will be terminated. This run will be awarded the number of points earned at the time the clock expired; however, the time will be recorded as 5 minutes.
- The team may terminate a run at any time. A terminated run will be awarded the number of points earned at the time the termination request is given; however, the time will be recorded as 5 minutes.
- To be considered “off the structure” for scoring, the area inside the ring must not intersect with any part of the plastic support structure.
- To be considered “in the container” for scoring, the ring must be completely detached from the SeaPerch and touching at least one wall (or bottom) of the container.
- Each run will be scored by adding the points for all objects collected. Each team’s best score will be entered to determine the winners of the recovery game.
- The team with the highest score will win the Recovery Game.
- If multiple teams have the maximum number of points, the team with the lowest time wins.