

## **Examples from the PLUS Manual**

### **Rationale Behind the PLUS Study**

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Despite the many benefits associated with engagement in regular physical activity, there is consistent research that shows the transition from high school to university represents a period in which significant declines in physical activity occurs. The over arching question is how we can prevent or attenuate these declines from occurring, and what kind of impact does sustained engagement in activity have on first-year university students. Physical literacy has been suggested to be one reason for why inactivity may form, as too many individuals are physically illiterate. Margret Whitehead (2007) describes physical literacy as, “the motivation, confidence, physical competence, understanding, and knowledge to maintain physical activity at an individually appropriate level throughout life.” From a theoretical standpoint, each of these domains of physical literacy has been shown to be related to physical activity, yet only recently have researchers begun to develop and evaluate programs under a broader physical literacy framework – and none that has focused on the emerging adulthood populations.

### **Goals of the Program**

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1. To create and engage in activities that challenge students to develop new movement skills;
  - By exposing students to various activities across campus and engaging them in weekly PA, the goal is to produce students who are knowledgeable about the different ways that they can be physically active. This will ideally help attenuate such significant declines in PA levels, typically seen during first-year university.
2. To teach students about the many opportunities they have to engage in physical activities in and around campus;
  - Selecting activities that are non-traditional or non-conventional forms of PA can help first-years develop competence, confidence, knowledge, and motivation in a wider range of activities. Additionally, selecting activities that are unfamiliar can help “level the playing field” between trained and untrained participants when monitoring outcomes.
3. To develop students’ confidence and motivation to engage in activities with peers;
  - PLUS does not emphasize the competitive aspect of physical activity and sport, but rather encourages all students to simply try their best. With practice and successful experiences, students will learn that they have the ability to perform activities that they may not have thought they could, hopefully leading to sustained PA across the lifespan.
4. To have fun!!

**Intervention Schedule *\*\*Subject to slight modifications\*\****

<b>Date</b>	<b>Activity</b>
Aug. 26 & Aug. 27	Residence Move In
Aug 28 –Sept 1	Participant Recruitment
Sept. 5 –Sept 8	<b>Week 1:</b> Baseline Testing
Sept. 12	<b>Week 2:</b> Alpine and Team Building Courses
Sept. 19	<b>Week 3:</b> Capture the Flag
Sept. 26	<b>Week 4:</b> HIIT and Cootes Paradise Walk/Run
Oct. 3	<b>Week 5:</b> Beach and Cottage Games
<b>Fall Reading Week – No Programming</b>	
Oct. 17	<b>Week 6:</b> Human Board Games
Oct. 24	<b>Week 7:</b> Rock Climbing
Oct. 31	<b>Week 8:</b> Inner Tube Water Polo
Nov. 7	<b>Week 9:</b> Zumba
Nov. 14	<b>Week 10:</b> Adapted Games
Nov. 21	<b>Week 11:</b> McMaster Amazing Race
Nov. 27 –Dec. 1	<b>Week 12:</b> Post-Intervention Testing

## Human Board Games

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- **Twister:**

Played in the traditional sense with two mats to accommodate approximately 7 students playing at one time.

- Can be played in down the hall by the squash courts

The rules of twister are as follows:

- The referee spins the spinner, then calls out the body part and the color that the arrow points to. For example, the referee may call out: "Right hand, red." *All players, at the same time*, must then try to follow the referee's directions as explained below.
- Each player must try to place the called-out body part on a *vacant* circle of the called-out color. For [example, if the referee calls out "Right hand, red," each player must try to place a right hand on any vacant red circle.
- If your called-out hand or foot is *already* on a circle of the called-out color, you must try to move it to another circle of the same color.
- There can never be more than one hand or foot on any one circle. If two or more players reach for the same circle, the referee must decide which player got there first. The other player(s) must find another vacant circle of the same color.
- Any player who falls, or touches the mat with an elbow or knee, is immediately out of the game. (If you feel that a new position is impossible, or will cause you to fall, you may eliminate yourself.)
- The last player left in the game is the winner

- **Bucket Ball:**

- Can be played in down the hall by the squash courts

The rules of Bucket Ball are as follows:

- Two sets of 6 bins will be arranged into triangle formation approximately 20 feet from each other.
- Each game will be played with two teams of 3 participants.
- Each team will aim to throw their volleyball into the opposing team's bin.
- Bins that have been hit will be removed.
- Each team will get two throws per turn- players within a team will rotate who gets to throw each turn.
- Players must always shoot from behind the buckets
- Players can shoot underhand or overhand, and the ball can bounce or fall directly in the bucket to score a point
- After both players throw their balls, any buckets scored in are removed from play. If the first player to shoot scores, their ball is removed from the bucket to give the second player the opportunity to score in the same bucket. If the players scored in the same bucket, then three buckets (the bucket they scored in + 2

other buckets of their choice) are removed from play. If the players score in different buckets, than only those two buckets are removed from play.

- No rearranging of buckets is allowed
- The first team to remove all 6 of the other teams bins will be the winner.
- For every ball thrown in by a team – 5 pushups must be completed by the opposing team.

- **Hungry-Hungry Humans:**

- Divide the participants into 2 groups:
  - one group will use the squash court
  - one group will use the racquetball court
- This will be a real-life version of “Hungry Hungry Hippos.”
- Each group will be set up with two teams of three.
- One member will lie on a scooter board on their stomach, the other team members will hold onto their legs to move them around the play area.
- The person lying on the scooter board will use their basket to capture as many of the balls on the ground as they can and move them to their team area.
- The team with the most balls once all have been collected will be the winner.
- Players will rotate through positions at the end of each round
- Each round will last 3 minutes maximum, or until all of the balls have been captured, at which point each team will count their balls and one team will win the round.
- Depending on the space available and if one position seems advantageous, we can have the teams rotate corners at the end of each round. However if there is ample space and we see that all positions have equal access, there is no need to rotate corners between rounds.

- **Timeline:** Total – 45 Minutes

- 15 Minutes: 7 participants (Group A) will play Twister, while the other 6 participants (Group B) play Bucket Ball
- 15 Minutes: Group A and B will rotate activities
- 15 Minutes: All participants take part in Hungry-Hungry Humans

## Activity: Rock Climbing

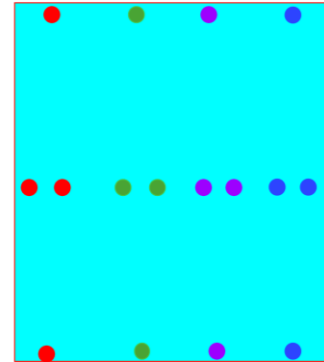
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- **Description:** While rock climbing, participants climb up, down, or across artificial rock walls with the goal of reaching a predetermined endpoint without falling. Rock climbing builds muscle and endurance, as a successful climb relies on intricate footwork, lower- and upper-body strength, flexibility, and lean body mass, all while getting your heart pumping similar to the way jogging does. Being a form of exercise, rock climbing has been shown to reduce stress by increasing levels of norepinephrine, while potentially creating a sense of euphoria. Climbing also demands body awareness and problem-solving skills, resulting in a boost in brain function, which may decrease symptoms of ADHD, improve memory, or boost creativity. Finally, rock climbing helps to teach valuable life skills, such as focus, balance, and determination. It motivates individuals to overcome their own fear and challenges, which helps to put other challenges in life into perspective.
- **Variations:**
  - **Straight Up:** Select a predetermined route on the climbing wall. Using both of your arms and both of your legs, manoeuvre up the wall in any way possible, until you reach the top.
  - **Ipsilateral:** Ipsilateral refers to the same side of the body. In this variation, you must move your right arm and leg at the same time, and your left arm and leg at the same time. For example, you cannot lift your right foot to a new rock and then use your left arm to pull you up; you must use your right arm.
  - **One Leg:** In this variation, you must travel up the wall using only one leg. This will require more upper body strength, as you must hold yourself up with your arms as you move the chosen foot.
  - **Hands Tied Together:** In this variation, a piece of fabric will be used to tie your wrists together, such that your two hands function as one. This means that as you climb up the wall, you will only be able to hold onto one rock at a time.
  - **Blindfolded:** In this variation, participants will be blindfolded as they attempt to climb the rock wall. This will require body awareness and problem solving skills.
- The climbing wall being used is the one in The Pulse at McMaster.
  - This rock wall has 5 lanes, so students will be divided into five groups of three.
  - Students will take turns climbing the wall and belaying each other.
  - **Challenge:** Try to complete all five variations in the presented order
- **Timeline:** Total – 45 Minutes
  - 5 Minutes: Instructions from Pulse staff
  - 40 Minutes: Climbing

## Activity: Water Games/ Inner Tube Water Polo

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- **Activity One Description:** Warm Up In Pool
  - Distribute inner tubes to all participants.
  - Participants free to attempt rolling log in pool for warm-up/cool-down
- **Activity Two Description:** Inner Tube Relay
  - Divide into groups of 4 participants.
  - Position teams with one participant at each end of pool, and two in the middle (See diagram). Designate one end of pool to be “start”.
  - On the whistle, participant at start the start position will swim in tube to middle of pool, and high-five ONE of their teammates. The start participant will then stop, and the high-fived teammate will swim across to the end of pool, and high five the participant at the end. The end participants will then swim and high five the second team-member in the middle, which will then swim back to starting position.
  - The relay will then be repeated, but participants will be instructed to only swim BACKWARDS in the tube.
- **Activity Three Description:** Inner Tube Water Polo
  - Divide into two teams (6+goalie per team). Have one team wear pennies.
  - Objective: To throw the ball into the other team’s goal. As players advance towards opponent’s goal, opposing team must try to defend.
  - Players are allowed to obstruct throws using body, but are NOT allowed to push/touch opponent’s inner tube. This would result in penalty shot for other team.
  - Goalkeepers must sit inside the tube at all times and remain in the goal area.
  - Players can advance the ball by throwing it to teammate, or holding it.
  - MODIFICATION: If the game is too easy, players can only advance by throwing the ball to teammate, with a time limit of 5 seconds to hold the ball.
  - Allow 2 minutes to position team and create game plan prior to start of game.
  - Allow 2 minute break after ~15 minutes to rest.
  - To increase player participation, implement mandatory 5-pass rule before goal.
- **Timeline:** Total – 45 Minutes
  - 5 Minutes: Activity one
  - 10 Minutes: Activity two
  - 30 Minutes: Activity three



## Weekly Intervention Implementation Checklist

**Date:** \_\_\_\_\_ **Activity:** \_\_\_\_\_ **Assessor:** \_\_\_\_\_

1. Generally, how did the session go?
2. What problems were encountered? How could this be fixed this in the future?
3. Did participants appear interested and engaged in the activity?
4. Were the domains of physical literacy addressed? How?
  - a. Knowledge/Understanding:
  - b. Competence:
  - c. Confidence:
  - d. Motivation: