Games and Activities to Optimize Self Regulation

A strong relationship exists between the development of executive functioning skills and self-regulation. The Centre on the Developing Child at Harvard University identify executive functioning and self-regulation as "critical supports for learning and development." Though we are not born with these abilities, "we are born with the potential to develop them through interactions and practice."

Activities and Challenges for all ages requiring:

Working Memory, Inhibitory Control and Cognitive Flexibility

Introduction

The activities in this resource require three distinct types of brain function:

Working Memory

our ability to store and manipulate immediate pieces of information for short periods of time

Inhibitory Control

our ability to maintain attention by focusing on relevant information while reducing, or blocking, the impact of irrelevant information

Cognitive Flexibility

our ability to respond to a variety of different demands, shifting attention between two or more pieces of information of varying complexity.

Students can play the following games in a variety of ways that suit the context and needs of your class. The basic version of each activity begins as a traditional "relay." Adding complexity and extra rules is completely acceptable and will achieve the same outcomes. Considerations of class size, student ability and available equipment will support decisions to modify each of the following games.

Reference: Harvard Centre on the Developing Child - https://developingchild.harvard.edu

Memory

A classic game adapted into a relay that can fit a gymnasium, classroom or outdoor space

Equipment

- Small closed-top pylons or opaque plastic cups
- An equal number of small foam blocks in matching pairs (i.e. 18 pairs for 36 cones/cups)

Set-up

- Arrange the pylons/cups in a grid at one end of the playing area
- Adjust the size of the grid and the number of pylons to meet the needs of your
- students and size of your class
- Randomly place the foam blocks under the cones/cups so that there is one in each
- Establish a starting area where relay teams will line-up to move to and from the grid
- of cones

Play

- Teams will send one player at a time, this player can flip over any two cones
- If there is a match, they leave the cones flipped and bring back the foam blocks to their team's
- counting area
- If there is not a match, they may leave the first cone flipped but must re-cover the second cone
- (for added complexity, you could also require students to flip back both cones of a mismatch)
- Teams send players one after the other, whether they find a match or not - each player can only
- flip 2 cones per turn
- Continue until all the matching blocks are found

Connect Four

The vertical board game turned horizontal, or for a twist, try it on a hill!

Equipment

- A square number of hula hoops (e.g. an 7x7 grid or 49 hoops)
- Coloured objects that can be used to mark-off hoops (e.g. poly spots, pylons, bean bags)
- arranged for the number of teams playing

Set-up

- Arrange the "Connect Four" grid of hula hoops at one end of the playing area (playing
- across the gymnasium is ideal or outside in an open space)
- Arrange teams at a starting line on the other end of the playing area, where they will take
- turns running to the grid to drop their markers
- Remind students that you have to build from the "bottom-up"

Play

- Teams send players one at a time with a marker in their team colour
- Players can drop the marker in any column, but must fill the column from the "bottom up"
- To help reinforce this, you could have teams run to the "top" of the grid and "drop" their marker
- down the column to the bottom or on top of previously placed markers
- The goal is to make a row of four of your team's markers - vertical, horizontal or diagonal all
- count
- Variation: instead of markers, teams can use their players in the grid, wearing pinnies - this could
- work well for a very large group

Rubiks Cube

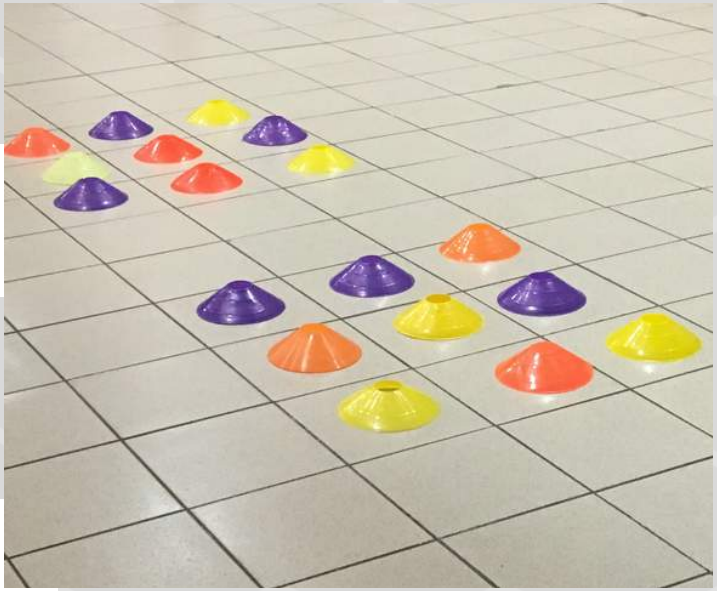
A 2-D version of the 3-D game

Equipment

- Three sets of three different markers (e.g. cones, poly spots, bean bags)
- A gymnastics mat or other playing surface (i.e. the cube)

Set-up

- Arrange the markers in a random 3x3 pattern
- Set-out enough different "cubes" so that small teams can work together to solve them



Play

- Teams can send one player at a time up to the cube, where they can swap only 2
- markers at a time
- Like on a Rubiks Cube, the markers can only move vertically or horizontally (not
- diagonally)
- The cube will be complete when the three types of markers are all arranged in matching
- vertical or horizontal lines
- You can have teams count their number of moves, striving to solve the cube in the least
- number of moves possible

Tower of Hanoi

Blending concentration, memory, teamwork and speed

Equipment

- 2 sets of stacking boxes (3 to 5 boxes) for each team
- Cones to mark a start, middle and finish line

Set-up

- Set out the stacking boxes in towers from large to small, bottom-up, on the start line
- Make sure the middle and finish lines are clearly marked

Play

- Teams can move one box at a time to either the middle, finish or start lines and take
- turns alternating players
- The goal is to re-create the tower on the finish line in as few moves as possible

Match It

Lots of possibilities for cross-curricular exploration in math, language arts, science

Equipment

- A deck of cards and 2 baskets or upside-down frisbees (for collecting matches) per table or
- playing area (a folded gymnastics mat works well for this)
- Variations: use Animoves cards or Lucky 7's to add more activity, or have students create
- pairs of cards that relate to topics in another class (e.g. parts of speech, equations)

Set-up

- Randomly place all the numbered and royalty cards face down on the playing area
- Set up the baskets or frisbees on either side of the playing area - one for each team

Play

- Teams send one player at a time to flip over 2 cards
- If they find a match, they place both cards in their teams basket/frisbee
- If there is not a match, leave one card face-up while the second card must be turned
- face-down
- Continue until all matches are found or until time runs out

Mastermind

Code cracking with poly spots

Equipment

- Gymnastics Mats
- 2 sets of poly spots in 4 different colours for each side of each mat
- (optional) extra markers, all the same, for the top of the mat

Set-up

- Arrange the mats folded vertically so that each set of 4 poly spots are set-up on each side
- and cannot be seen from the other side
- Arrange the poly spots in different random patterns on each side of the mat
- (optional) place the extra markers (such as badminton shuttles) on the top of the mat at
- the top of the four columns

Play

- Teams will take turns changing the pattern of the poly spots on their side of the mat - one
- player will be on the other side with the "master code"
- The player guarding the master code will let the team know when they have some or all
- poly spots placed correctly (this can be done by removing shuttles/markers, if using them)
- Variations: teams can earn a number of poly spots to move per turn from any sort of
- activity (e.g. a game of "Five Finger Fling" in DPA Greatest Hits)

Tic Tac Toe

Plenty of variations to add activity and skill development to this team builder

Equipment

- 9 hula hoops, or skipping ropes or painters tape to create a tic tac toe grid
- Objects to place on the board, or teams can use themselves as human X's and O's

Set-up

- Set up the tic tac toe grid and a starting line for two teams to battle, relay-style

Play

- Divide into 2 teams - X's and O's (or whatever creative teams you wish)
- Teams can either alternate turns or both start the relay at the same time
- The first team to get three in a row wins
- Variations: rather than running, teams can line up from the start line to the grid and pass
- along an object (such as a dodgeball or bean bag) for additional tossing/catching
- practice, try combining with a game such as "Ladders and Tunnels" for additional
- movement)

Sophie's Tower

A Fen-Mac original!

Equipment

- Small foam blocks with many sets of the same pieces (or lego pieces)
- A small box with only one open side

Set-up

- Spread out the foam blocks or lego pieces randomly all at one end of the gym
- Establish a starting line and a mid-line where you will also place the small box
- Build a sample tower inside the small box and place on the mid-line

Play

- Teams send one player at a time, they may do one of two things on each turn: take a
- look at the sample tower or collect one block from the pile at the end of the gym
- Teams need to collect the correct pieces and build a tower that matches the sample as
- quickly as possible

Trailblazer

A code-breaking maze challenge with hula hoops

Equipment

- 9 hula hoops for each playing station
- Printed pattern cards (samples are included, or you can create many variations)

Set-up

- Arrange the hula hoops in the pattern on the printed cards
- Have one team member start at the hula hoops, they can NOT show the pattern on the
- card to their team members who are at the start line across the playing space

Play

- Team members take turns coming to the hula hoops and making their way through
- The member who has the pattern guides the team through the hoops
- When a player steps on a hoop marked green on the pattern card, they may continue, if
- they step on a hoop marked red, they must stop and return to the group
- Variation: to help the group remember the pattern, players can leave a cone or bean bag
- on each hula hoop that they are allowed to step into

Trailblazer Code Samples