

You'll need: hula hoops, and Green Glass Door cards You can play: outside, in the gym, on the blacktop

# Problem Solving Grades K-1

#### Game 1

### **Monsters in the Closet**

Place enough hoops around the space for one per learner. On a signal, the children move around like monsters or however they choose. On the next signal, the learners jump in to the closet (hoop). When they are all moving again take away two hoops. When they have to jump in to the closet again there will not be enough hoops for everyone so they will need to work out how to get in to a hoop with someone else. Repeat the process until all learners are in as few hoops as possible; ideally try to get everyone into one.

Note: talk about the different ways to safely share hoops; using feet, or even fingers, instead of whole bodies

### Game 2

## Hula Hoop Circle

Divide learners into groups of 4-6. In each group, the learners will form a circle, and join hands, with one hoop dangling on one pair of joined hands. The object is to move the hoop around the circle by moving their bodies so the hoop goes over everyone in the circle; without letting go of any joined hands. Once the learners have discovered how to move the hula hoop around the circle, try having them do it as fast as possible. To extend the game, join groups together, and add in more hula hoops.

### Game 3

### **Green Glass Door**

Sort the Green Glass Door cards into categories based on your chosen similarity (i.e., same shape, double letters, animals). Spread out the cards at the far end of the playing area. Group learners into teams. Each team lines up behind a cone. On "Go", participants will run down and grab one card, relay style, then run back to their team to send off the next person. Once all team members have one card, they must work together to find what is in common in all of their cards. Once they have decided on the similarity they think it is, they will sit down, and the adult will come over to confirm if they are correct.

Use the letters in the words or similarities that are less obvious

Use colours and shapes

Was it easy to think of a solution after you had been running? Did you do anything to calm your mind down in order to be able to think? Could you spot any similarities on your cards?

Debrief

### **Mindfulness**

**Balloon Breathing** - Imagine a large balloon in your hands; as you breathe in, the balloon expands, as you breathe out, the balloon shrinks. Repeat 5 times.

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# Why include problem solving?



A key tenet in the theory of physical literacy is the philosophical principle of monism. Monism states that we are a single being, with our minds and bodies being a single unit that need to be nurtured and developed together. Current child development principles embrace this philosophy through understanding and operationalizing a holistic approach that is individual for each child. With these notions in mind, it is important to embed cognitive components in to the physical education curriculum in order for learners to understand the connection between our physical and cognitive states.

To look at this another way, it can be said that every physical activity or game is a puzzle that needs to be solved in order to achieve success. For example, the strategies and decision making process that are required even in the most simple tag game will impact how much success you achieve in that activity. In this scenario, it is important for all learners to learn how to use their brain to solve complex puzzles when their body is in a fatigued state. This takes concentration, self-regulation and control to do effectively and efficiently.

In the games used in this lesson plan the games have been intentionally designed to provide various equations that may require a unique solution, lateral thinking or potentially no solution at all. Depending on the developmental level of the learners in your group, you can create a more difficult or easier challenge for each of these activities.

For the first game, the problem arises when there is too little space for each person to stand in a hoop. If you have a group that may need a little help, you can say that only one piece of each person, such as a foot or a hand, needs to be in the hoop. This creates a lot more space. Alternatively, if the group need a challenge, you can change the hoop to a bench or chairs, and state that everyone has to be off the ground. In each case, the problem being solved does not change and the answer cannot purely be of an 'athletic' nature.

The final game is a lot more complex and may take more time to play. Based on a language based riddle of the same name, PISE created these cards as a visual representation of the activity. These cards have many different levels of complexity embedded within them, with each card able to be included in many different categories. It is best to start this activity with the easy options first (the shapes and colours of the shapes) to gain the understanding of the activity, then increase the complexity as learners understand the thought process that is required to solve the problem.

If you have any questions regarding physical literacy, physical activity, games or facilitation, please contact us at play@pise.ca. We are here to help you!