

# Nature-Based Physical Activities



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# Why nature-based physical activity?

- Canadian children and adolescents are now spending so much time on screens, video games, smartphones, tablets, computers and television that public-health experts report that it is negatively impacting their physical, mental and social health (Roberts, Yao, Carson, Chaput, & Tremblay, 2017).
- During COVID-19, many structured physical activities are restricted or not even taking place. Since physical activity is key to managing mental and physical health and well-being, especially during a pandemic, it is really important, as teachers, to encourage our students to be active.
- One possible solution to encouraging physical, mental and social health in adolescents, in a safe way, is time spent being active outdoors (ParticipACTION, 2018; Tremblay et al., 2015).
- Physical and Health Education recommends in their [COVID-19 Pandemic: Return to School Guidelines](#) to “include more individual pursuits than traditional team activities such as...alternative environment and land-based activities...[and] mindfulness” and to “explore local parks and green spaces to promote outdoor learning and activity”.
  - Specifically, PHE Canada recommends activities like outdoor treasure hunts, survival skills, hiking, orienteering, geocaching, and outdoor education.
- [Education experts call for outdoor classes to increase student safety amid COVID-19 pandemic](#)
- In addition to potentially improving overall health, individuals who feel connected with nature and appreciate its values are the ones who are most likely to behave in an environmentally responsible manner as adults (Nisbet, Zelenski, & Murphy, 2009).

# Stick Catch Game

**Age group:** 6+

**Players:** Individually or groups of 3-5.

**Equipment/Materials:** 50 6-8" long, straight sticks.

**Description:** The goal of this activity is to rest a stick on the back of your wrist, drop your hand away from the stick, and then catch it in the palm of the same hand. You may only use one hand. Each group of students must find a space approximately 10-15 feet from the pile of sticks. One at a time, the first member of each group runs up to the collection of sticks and attempts the stick catch. If successful, the next person in the group tries for the next number (e.g. if a student was successful catching four sticks, the next group member attempts to catch five). The game is over after a specified amount of time. The group with the largest number of successful catches wins. The origin of this game is unknown, although it was commonly found among Indigenous groups throughout North America. As with many indigenous games, this is a test of coordination and dexterity. Students often come up with a variety of techniques to catch the sticks successfully.



# My Tree

**Age group:** 8+

**Players:** Partners.

**Equipment/Materials:** Blindfolds (one per pair - optional).

**Description:** In partners, one of the pair leads the other to a selected tree (take a meandering route). Ideally, participants should walk at least 65 feet. Guides lead their unsighted partners slowly and carefully, warning them of obstacles. Make sure to go over safety beforehand to ensure that the student escorts understand that it is their job to protect the unsighted student from harm by keeping an eye out for rocks, holes in the ground and low hanging branches. Once at the selected tree, the guide places their partner's hands on the tree in order to explore it. Unsighted partners may touch the tree, hug it, or use any other tactic they choose while keeping their blindfold on or their eyes closed. After the exploration, guides take their partners back to the start point, following a roundabout route to make it more challenging. Once back, unsighted partners regain their sight and try to find their special tree. When the tree is found (or time is up), switch roles.

**Resources:** Cornell, J. (2015). *Sharing nature: Nature awareness activities for all ages*. Nevada City, California: Crystal City Publishers.

HCTF Education. *Sensory awareness activities – For good mind and body*. [PDF file].

Houghton, P., & Worroll, J. (2016). *Play the forest school way: Woodland games, crafts and skills for adventurous kids*. United Kingdom: Watkins Publishing.

# Intertidal Scavenger Hunt

**Age group:** 8+

**Players:** Individually or groups of 3-5.

**Equipment/Materials:** *Intertidal Scavenger Hunt* sheet, garbage bags to collect trash and recyclables found during the exploration.

**Description:** Delineate areas where students should go and places to avoid. Avoid cliffs, caves, and sandbars that could become isolated as the tide rises. Students should be within sight and hearing distance at all times. Gather all the students in a circle in the central area. Discuss and remind them about safety rules and marine etiquette. Before exploring and while still in a circle, have everyone crouch to practice how they will stay low to the ground when observing. Give a guideline on the largest size of rock that can be lifted safely (such as the size of one's head). Demonstrate how to carefully lift a rock and put it back. Emphasize that it is critical that overturned rocks are gently replaced to their original position to keep creatures there cool, moist, and protected from predators. We are observing only and not touching or collecting. Challenge students to complete as many of the tasks as possible within the timeframe.

**Resources:** HCTF Education. *Intertidal biodiversity scavenger hunt*. [PDF file].

# Intertidal Scavenger Hunt

Tracks of animals in sand



A crab moult



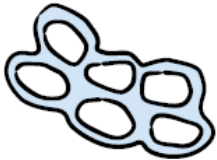
An animal that lives in one shell



A fish in a tidepool



A piece (or many pieces) of litter or marine plastic debris (bring to your teacher)



An animal living on another animal



A pattern in the sky



Something slimy



Three different types of seaweed (Bonus: Count all the different types of seaweed that you can find)



Something smelly



Seaweed living on an animal



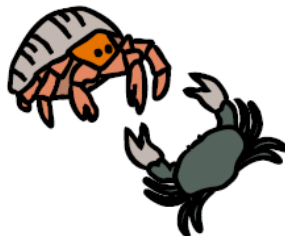
An animal that lives in two shells



An animal living under a rock (make sure to gently put the rock back where you found it!)



Two different types of crabs



Three different kinds of animals clinging to rocks



A bird hunting for food





# Motion Walk

**Age group:** 5+

**Players:** Individual.

**Equipment/Materials:** None.

**Description:** Walk and employ as many of your senses as possible to complete this challenge. What is moving around you? What is on the move? Besides seeing movement, how else can you tell something is moving? Try to repeat the movements you discovered by using your own body. Are the movements easy or hard to represent? Why?

**Resources:** Judson, G. (2018). *A walking curriculum: Evoking wonder and developing sense of place (K-12)*.



# Exploration Dice

**Age group:** 8+

**Players:** Individual or partners.

**Equipment/Materials:** Compasses (one per pair); exploration dice (wooden blocks with N, E, S, W, NW, and SE written on the six sides of one, and 4, 8, 12, 16, 20, and 24 written on the six sides of the other). Optional equipment: magnifying glasses, cameras/cell phones, local field guides.

**Description:** Individually or in partners, students use a compass to find N, E, S, W. Choose a starting point and roll both die. Using a compass, walk in the direction indicated and for the number of paces. Then “hunker down” – find something interesting where you are crouching. Options for students depending on their developmental level:

- Simply choose an interesting item (with their eyes)
- Look for a micro item with the magnifying glass
- Take a picture of the item
- Sketch the item
- Identify the item (fungi, tree, leaf etc.) based on their prior knowledge or a field guide

**Resources:** Monkman, D., & Rodenburg, J. (2016). *The big book of nature activities*. Gabriola Island, British Columbia, Canada: New Society Publishers.

# Beach Long Jump

**Age group:** 6+

**Players:** Groups of 3-4.

**Equipment/Materials:** None.

**Description:** Take advantage of a sandy beach and have your students try out their long jump skills. Draw a line in the sand, this is the jump line and students are not allowed to go over it. Instruct them, in groups, to take a good run up and jump. Have each student measure each jump with a unique marker (a shell or pebble) and try to beat their distance.

**Rules/Safety Reminders:** Choose an area that doesn't pose any hazards.

**Resources:** Ambrose, J. (2014). *Great things to do outside: 365 awesome outdoor activities*. New York: Dorling Kindersley.



# Build a Tent Shelter

**Age group:** 12+

**Players:** Small groups.

**Equipment/Materials:** Tarps and strong ropes.

**Description:** Shelters come in all shapes and sizes. One of the easiest types to build with students is a tent held up by a central line. Lay out the steps to students:  
Decide where you want to locate your shelter. Find two points where you can attach the ends of your central line. Tree branches work well. Set up your line, making sure it's not so high off the ground that your tent won't reach. When you're happy with the height, lay your tarp over the line so that the sides are even. Find something to keep the corners in place, such as rocks. You can also tap small sticks into the ground and tie the corners to those. Crawl inside and enjoy!

**Rules/Safety Reminders:** Choose an area that doesn't pose any hazards.

**Resources:** Ambrose, J. (2014). *Great things to do outside: 365 awesome outdoor activities*. New York: Dorling Kindersley.

# Find the Colours of the Rainbow

**Age group:** 5-8

**Players:** Individually or in partners.

**Equipment/Materials:** Rainbow colouring sheets and markers.

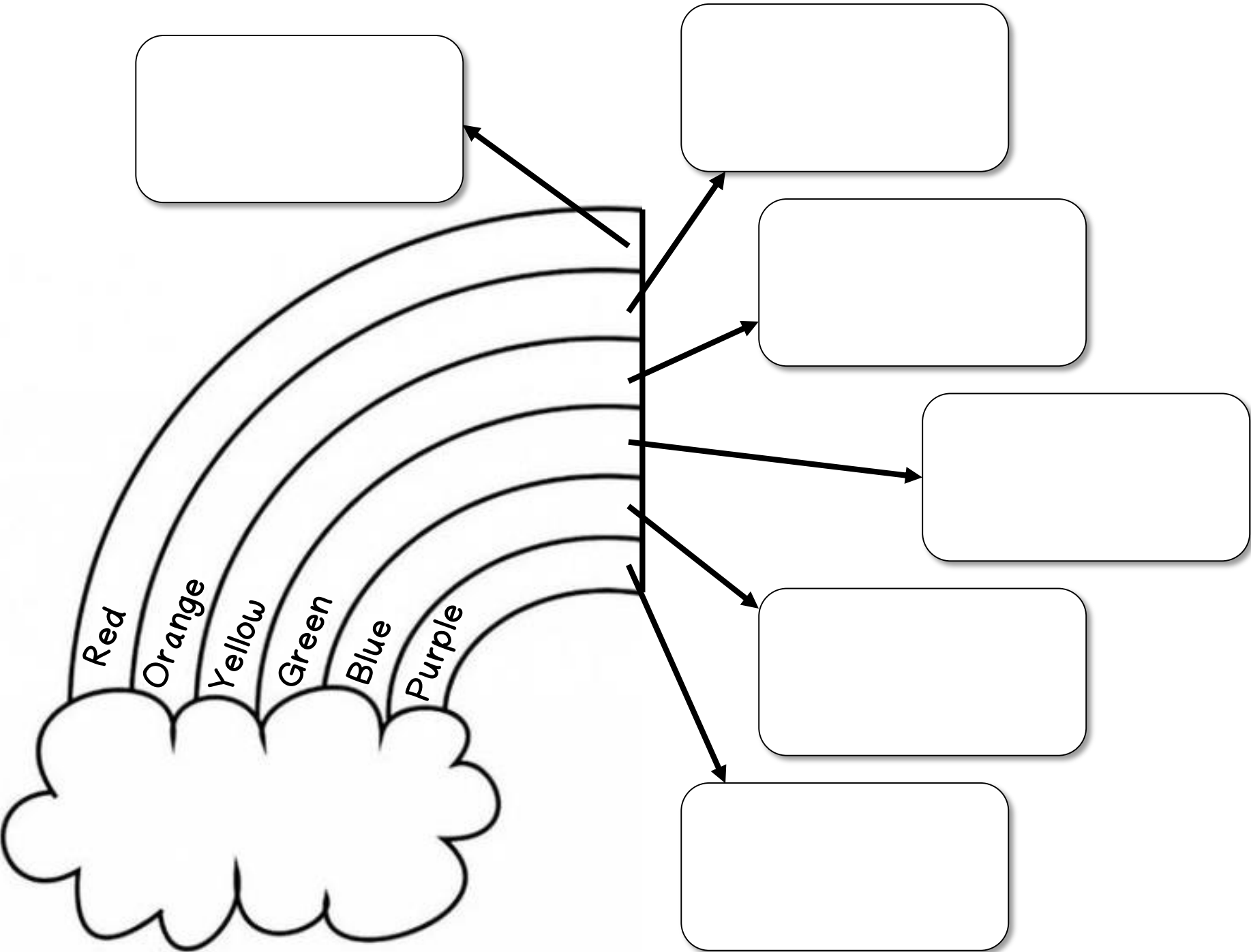
**Description:** Have markers and pencil crayons available for colouring. Allow students to colour the rainbow. Explain the activity: In partners, your job (either walking or jogging within the boundaries) is to find a natural object that matches each of the colours you have just included on your page. When you find an item of that colour you can either describe it using words or draw the item.

**Rules/Safety Reminders:** Must stay with your partner at all times.

**Adaptations/Extensions:** Aim to be the first pair back after successfully completing the challenge.

**Resources:** Adapted from an idea in Ward, J. (2008). *I love dirt!: 52 activities to help you and your kids discover the wonders of nature*. Boulder, Colorado: Roost Books.





# Alphabet Run

**Age group:** K-1

**Players:** Individually, partners, or in small groups.

**Equipment/Materials:** Stickers or markers, and alphabet cards.

**Description:** Individually or in partners, students are instructed to find things in nature that begin with a letter of the alphabet and to tell an adult once they have found and recorded it. The teacher or adult volunteer then puts a mark or a sticker on that letter on the student's alphabet card.

**Rules/Safety Reminders:** Must remain within the designated boundaries.

**Adaptations/Extensions:** Can split students into groups with an adult leader for each group. The adult leader has a list of treasure hunt challenges for students to find. Students co-operate or search individually for each treasure. Treasures reflect the diversity of the habitat (e.g. a plant with smooth leaves, a plant with fuzzy leaves, two different types of insects).

**Resources:** HCTF Education. *Exploratory nature walks with a kindergarten class*. [PDF file].



# Alphabet Card

**A**

\_\_\_\_\_

**B**

\_\_\_\_\_

**C**

\_\_\_\_\_

**D**

\_\_\_\_\_

**E**

\_\_\_\_\_

**F**

\_\_\_\_\_

**G**

\_\_\_\_\_

**H**

\_\_\_\_\_

**I**

\_\_\_\_\_

**J**

\_\_\_\_\_

**K**

\_\_\_\_\_

**L**

\_\_\_\_\_

**M**

\_\_\_\_\_

**N**

\_\_\_\_\_

**O**

\_\_\_\_\_

**P**

\_\_\_\_\_

**Q**

\_\_\_\_\_

**R**

\_\_\_\_\_

**S**

\_\_\_\_\_

**T**

\_\_\_\_\_

**U**

\_\_\_\_\_

**V**

\_\_\_\_\_

**W/X**

\_\_\_\_\_

**Y/Z**

\_\_\_\_\_

# Feathery Race

**Age group:** 5+

**Players:** Students are arranged along a starting line (line drawn in the sand, a line of rocks/cones etc.). and have to blow their feather across the playing area to the finish line. This activity can also be played as a relay race where students are placed on teams. If done this way, make the start and finish boundaries much smaller.

**Equipment/materials:** Feathers (or leaves).

**Description:** Students must blow their feather (or grass or leaf) across the playing area to the finish line. This activity can also be played as a relay race where students are placed on teams. If done this way, make the start and finish boundaries much smaller. Students are not allowed to use their hands.

**Adaptations/Extensions:** This activity can be used as a basis to explore adaptations. Students can also try blowing different objects and discuss why some are easier to move than others. Douglas maples produce wing seeds that are good for gravity races.

**Resources:** HCTF Education. *Sensory awareness activities – For good mind and body.* [PDF file].



# Listening

**Age group:** 5+

**Players:** Individual

**Equipment/Materials:** None (or optional journal)

**Description:** Students pick a spot to sit down leaving space between themselves and others. Students sit quietly and listen to nature. This is a great activity to get students feeling calm and focused, although if they have too much energy, you may want to start with an activity to burn off their energy first.

**Adaptations/Extensions:** Students' sit with eyes closed and put a finger up for every new sound they hear. Have students do one sit in an urban spot and another in a natural spot and have them compare the different sounds that they hear and how they make them feel. Combine this activity with journal writing if you wish.

**Resources:** HCTF Education. *Sensory awareness activities – For good mind and body.* [PDF file].

# Animal Forms

**Age group:** 5+

**Players:** Can arrange the students into different teams, or play together as a class.

**Equipment/Materials:** None.

**Description:** Students act out various local animals while others guess what they are. Teacher can whisper ideas for those who are stuck.

**Adaptations/Extensions:** Acting out natural processes – In this activity, players act out natural phenomena such as the life cycle of a butterfly, seasonal change, glaciation, or even the solar system. Typically, twelve to eighteen students are needed to act out a natural process. If working in teams, ensure there is at least one nature-knowledgeable person on each team – someone who can explain the principles of the natural process, so that as a team they can figure out how to best portray the phenomenon.

**Resources:**

Cornell, J. (2015). *Sharing nature – Nature awareness activities for all ages*. Nevada, CA: Crystal Clarity.

Back to Nature Network. *Into nature – A guide to teaching in nearby nature*. [PDF file].

HCTF Education. Exploratory nature walks with a kindergarten class. [PDF file].

[Animal Forms](#) video.



# Cougar and Deer

**Age group:** 5+

**Players:** Divide group into cougars and deer.

**Equipment/Materials:** Items to make a boundary for cougars to start behind (cones, rocks etc.)

**Description:** The students selected to be deer go to one area, while the students who are cougars start behind the boundary line. Deer's role is to listen (with ears up while eating). Cougars' role is to try to sneak up on the deer. If at any point the deer hear a cougar, they look in the direction they heard the sound. If a cougar is looked at, then they must freeze. When the deer relaxes and goes back to the eating, the cougar can resume movement. If a cougar continues movement (or wiggling, or laughing) while a deer is looking at them, they must start behind the boundary line again. The cougar's goal is to get all the way to a deer and tag them. If people are still playing when a cougar tags a deer they continue the game by pretending to be a deer as well.

**Resources:**

[Cougar and Deer](#) video.

# Eagle Eye

**Age group:** 6+

**Players:** Players run and hide in the playing area within the boundary (areas with long grass or trees and rocks to hide behind are best).

**Equipment/Materials:** Cones to place around the eagle, or can use a stick to draw a circle in the dirt.

**Description:** The teacher chooses one student to be the Eagle (predator), the remaining students are Mice (prey). The Eagle must remain in its 'nest' (a small circle made around them); they close their eyes and ears, and count to 30. The mice run and hide within the boundary. Mice must be able to see the eagle with at least one eye. Once hidden, students must remain silent to avoid being detected by the owl. At the count of 30, the eagle opens their eyes and yells "eagle is waking up!" The eagle can then turn all the way around on the spot, but cannot leave the nest. The eagle must spot the mice and call out the name of the student or the colour of their clothing. As soon as each person is spotted, they join the eagle. The new 'baby' eagles cannot tell the original eagle where other mice are hiding. If the mice are too difficult to spot, the eagle can say "going to sleep" and count for a shorter amount of time. Each time the eagle does this, the mice must hide five steps closer.

**Resources:**

Back to Nature Network. *Into nature – A guide to teaching in nearby nature*. [PDF file].

McCarthy, S. C. (2011). *Outdoor education – Hand's on nature activities, games, and techniques with grades 3-through-6*. Canton, MA: SRCM Books.

[Eagle Eye](#) video.



# Additional Resources

- Ophea has teamed up with TVOkids to develop a series of physical activity energizer videos for kids. Taking active breaks helps increase memory, observation, problem-solving and decision-making skills – and to top it off they'll be better engaged to learn more too!
  - [Power Up: Nature 1](#)
- [Animal Walks](#)
- [Move Like the Animals](#)
- Mindfulness Activities:
  - [Breathing with Awareness](#)
  - [Breathing Good Energy In](#)
  - [Body Sensing Meditation](#)
  - [Happy Place Meditation](#)
  - [Energy Release](#)

# References

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