

Layering and Dressing for Outdoor Success

Lesson Overview

During this lesson, students will practice their relationship and critical thinking skills to identify how to dress appropriately for a variety of weather conditions to stay safe during outdoor education activities.

Overall and Specific Expectations

- A1: A1.4, A1.5, A1.6
- B3: B3.1, B3.2
- D2: Gr. 4 – D2.2, Gr. 8 – D2.2
- D3: Gr. 1 - D3.1, Gr. 6 - D3.2

Learning Goals

- I can use my relationship and critical thinking skills to analyze situations and behaviours and act appropriately to keep myself and others safe during outdoor education activities.
- I can behave responsibly and follow safety rules and procedures to avoid illness during outdoor education activities.

Materials

- [Student Resource: Layering and Dressing for Outdoor Success - Self-Check \(primary\)](#)
- [Student Resource: Layering and Dressing for Outdoor Success - Self-Check \(junior\)](#)

- [Student Resource: Layering and Dressing for Outdoor Success - Self-Check \(intermediate\)](#)
- [Teacher Resource: Cold and Heat Related Illnesses](#)

Ontario Physical Activity Safety Standards in Education

Tools and Resources

- [Disability-Centred Safety](#)
- [First Aid Plan and First Aid Emergency Response](#)
- [Sample Curricular Medical Information and Acknowledgement of Elements of Risk Form](#)
- [Temperatures](#)
- [Ultraviolet \(UV\) Index](#)
- [Winds](#)

Other

[Risk Management](#)

Assessment for Learning

At the beginning of the lesson, work with students to co-create criteria for assessing knowledge and skills needed to identify potential risks and apply safety rules and procedures during outdoor education activities.

For example, success criteria might include:

- I can identify the risk of not being dressed properly for the weather conditions when participating in different types of outdoor education activities.
- I can behave responsibly and apply safety rules and procedures to avoid weather related illness and keep myself safe during outdoor education activities.

After the activity, review the co-created criteria with students, and then have them complete the *Student Resource: Layering and Dressing for Success - Self-Check*.

Assess students' responses during the minds on scenarios and consolidation illustrations (primary), scenarios (junior/intermediate), and class discussions. Use the co-created criteria to assess student learning and offer feedback. If needed, provide feedback to individual students or the entire group, to clarify or reinforce their understanding of layering and dressing for success, and answer any remaining questions.

Minds On

Primary

Group students into 3-4. Provide students with the following scenario and have them generate answers to the questions.

Scenario: "We are having a new student join our class. It is their first time living in Canada so they have not experienced our varied weather conditions. We want to suggest clothing options to them so they are protected from the heat, cold, rain and sun."

Questions: What should they wear on a hot day? What do they need to protect them from the sun's rays? What should they wear on a cold and snowy day? What do they need for a cold and rainy day?"

Invite groups to share their answers with the class.

Junior

Group students into triads. Provide students with the following scenario and have them generate answers to the questions.

Scenario: "We have a unique climate in Canada because it is so diverse. Each of the four seasons can be described by its weather."

Questions: How do our clothing choices change for each season in Canada – Spring, Summer, Fall, Winter? How do we make sure we are dressed for the weather in each season, hot, cold, rainy, windy, sunny? Describe a typical outfit you would wear in each season."

Invite triads to share their answers with the class.

Intermediate

Pair students with an elbow partner. Provide students with the following scenario and have them generate answers to the question.

Scenario: "There is no bad weather, just bad clothing preparation."

Question: What does this phrase mean to you?"

Invite partners to share their answers with the class.

Action

Primary/Junior/Intermediate

Tell students that it is important for them to know how to dress appropriately when they are spending time outside to be safe and to have fun. There isn't one way to dress for all activities or for all conditions so they have to think about the right mix of clothes to wear for the different activities they participate in and the different weather conditions. They have to think about the intensity of the activity - are they moving quickly, slowly, always, only sometimes - and the outside temperature, the wind, the sun and precipitation like rain or snow. One good strategy to use is to dress in layers and think about all parts of their body that need protection.

Write the following information so that students can refer to it and describe what each one means (consider creating a slideshow to share content).

- **Base layer:** This is the layer that is in direct contact with your skin. This thin layer helps move your sweat away from your skin; this action is called "wicking." Moving sweat away from your skin to the surface of the fabric of your clothing allows your sweat to evaporate and helps keep you dry. If this layer holds your sweat, you will start to feel cold when you slow down or stop for a rest.
- **Mid layer:** This is the middle layer, like the filling in a sandwich. It insulates your body holding onto the heat your body generates which will keep you warm. It also moves your sweat out to the outside layer of clothing. This layer should be roomy enough to put over your base layer and still allow you to move but should still be snug to keep out the cold.

- Outer layer: This is the layer that we can see. It works like a “shell” that provides a shield against wind, rain and snow. Depending on what type of activity you are doing, this layer should protect the layers beneath it from the wind and/or the rain. This layer helps keep your other layers dry when it rains and keeps you protected from the wind. It should fit over your other two layers but still be snug while allowing you to move.
- Clothes that fit: Choose your clothing based on how cold it is and how active you think you will be. The colder it is, the thicker it should be. Make sure it fits snug enough to keep the cold out but does not restrict your ability to move.
- Types of fabric: There are four types of fabric that we need to be aware of when dressing for success in the outdoors. These include cotton, synthetics, down, and wool.
 - Cotton: Cotton is a natural fiber that is comfortable but holds onto moisture when it gets wet. For this reason, try to avoid pure cotton clothing when possible. If you have the choice of cotton or polyester, go with the polyester. However, cotton is acceptable in hot, dry conditions in summer for staying cool and avoiding heat injuries.
 - Synthetics: Synthetics are any polyester type fiber and are a great fabric choice for being outdoors. Clothing made of polyester, fleece, microfibers and spandex are all synthetic choices. Synthetic fibers do not like to hold onto moisture and help move your sweat away from your skin, and if they get wet they dry much faster than cotton or down.
 - Down: Down garments are filled with feathers that provide loft within the garment. This loft is what keeps you warm when it is dry; however, if down gets wet it loses its ability to hold loft and no longer provides any warmth.
 - Wool: Wool is a natural fiber made from a sheep's fur. Wool has natural properties that help move moisture away from the fabric similar to synthetics. Often wool fabrics are thicker than synthetic fabrics and provide some warmth.

(List : Backpacker's Pantry, 2020)

Use the following question prompts to engage students in discussion about using base layers and the parts of their body that need protection from weather.

- How does layering your clothes help you stay safe and to have fun? Possible answers:
 - In hot conditions layers can be removed.
 - In cold conditions layers can be added.
- What do you think you need to do to protect your head, hands and feet to avoid losing body heat in cold weather conditions? Possible answers:
 - Wear properly fitting hat, mitts, and socks and shoes that grip.
 - Bring extra socks or mitts in case clothing gets wet.
- What do you need to do to protect your eyes? Possible answers:
 - A hat to shade the sun and sunglasses.
 - Goggles to shield and protect from cold wind and blowing snow when downhill skiing.
- How can you make sure others can see you when you are outside at night? Possible answers:
 - Carry a flashlight or headlamp.
 - Try to wear clothes that have reflective tape on them.
- I carry some garbage bags and small baggies in my backpack in case we need them to protect us from the weather or for safety (consider showing students a garbage bag and small baggies). Why do you think I carry them with me? How might we use them to keep ourselves safe and warm when we are outside?

Junior/Intermediate

Using the *Teacher Resource: Cold and Heat Related Illnesses* as a guide, share the names of the illnesses with students and ask them what they mean. Share the definitions, symptoms and basic first aid steps with students. Using a Think/Pair/Share strategy, ask students how to use layers correctly to protect themselves and avoid these illnesses.

Consolidation

Primary/Junior/Intermediate

Divide students in pairs to complete the *Student Resource: Layering and Dressing for Success - Self-Check* to check for understanding of the lesson goals, then have students complete the following task:

Primary:

Have students draw a picture to help others know how to dress for adventures in hot weather or cold weather. Students can include both the weather factors and personal clothing choices for the location/activity.

Junior:

Divide students in pairs to review the following scenario and complete the subsequent task.

Scenario: "We are going on a day hike tomorrow. The weather forecast indicates that it will be cool in the morning. By lunch time it will be hot and a bit humid. It looks like we may have some rain toward the end of day as we are completing our hike."

Task: Have students create a list of the clothing they will wear and that they will bring in their backpack. Invite pairs to share their packing list with the class.

Intermediate:

Divide students in pairs to review the following scenario and complete the subsequent task.

Scenario: "You are packing your backpack for a two-day trip. The weather predictions are for an early morning chill when we set off with dew on the ground. As the day gets warmer, we will be generating body heat on our hike. Back at camp in the evening, expect to cool down as you are pitching your tent and getting ready for dinner. On Day 2, the weather reports are predicting a 40 % chance of rain showers."

Task: Have students create a list of clothing that they will wear, and what they will bring in their backpack. Invite pairs to share their packing list with the class.

Consider providing students with magazines and/or catalogues to cut out various pictures of indoor and outdoor clothing for various weather conditions. Have them include a few questionable or inappropriate clothing choices. Have students put their collection into an envelope and trade with another group. Provide the students with various scenarios. Have students create an appropriate outfit for the weather conditions they will be facing.

Notes to Teachers

Remember to check school board policies and procedures applicable to any outdoor education activity.

A variety of assessment strategies have been identified in the Assessing for Learning section of each activity. Please note that these assessment strategies have been provided as a means for teachers to gather information to determine what students already know and can do, to inform instruction, scaffold learning, differentiate instruction in response to their students needs, and help students keep track of their progress in achieving the learning goals. These are not meant to be used for formal assessment and evaluation purposes.

Consider pairing this lesson with the lesson “Staying Safe Outdoors” for students to learn basic first aid for heat and cold related injuries.

Reference

Backpacker's Pantry. (2018). [Gear Up for the Trail: A Comprehensive Guide on How to Dress for Hiking](#).