



Extreme Weather Procedures

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Memo To: All Stakeholders
From: Director of Education

ACCESSIBILITY:

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PURPOSE:

This memorandum provides information to school administrators on poor air quality values and extreme temperatures and the procedures that should be followed when they occur.

REFERENCES:

- Government of Canada "[Extreme Heat](#)" (Accessed June 2024)
- Region of Waterloo "[Extreme Heat](#)" (Accessed June 2024)
- National Collaborating Centre for Environmental Health "[Health Checks during Extreme Heat Events](#)" (Accessed June 2024)
- Sport Information Resource Centre (SIRC) "[Air Pollution and Sport Safety](#)" (Accessed June 2024)
- Athletics Ontario "[Extreme Environmental Conditions Guidelines for Training and Competition](#)" (Accessed June 2024)
- Ontario Physical Activity Safety Standards in Education (OPASSE) "[Hot Temperatures](#)" (Accessed June 2024)
- Ontario Physical Activity Safety Standards in Education (OPASSE) "[Cold Temperatures](#)" (Accessed June 2024)
- Ontario Physical Activity Safety Standards in Education (OPASSE) "[Air Quality Health Index](#)" (Accessed June 2024)
- Region of Waterloo Public Health "[Extreme Cold Weather](#)" (Accessed June 2024)
- Government of Canada "[Wind Chill and Cold Weather](#)" (Accessed June 2024)
- Government of Canada "[UV Index and Sun Safety](#)" (Accessed June 2024)
- Government of Canada "[Lightning Safety Overview](#)" (Accessed April 2025)

FORMS:

- N/A

REPORTS:

- N/A

APPENDICES:

- Appendix A – [OPHEA Sample Hot Weather Preparedness Guide](#)
- Appendix B – [OPHEA Sample Cold Weather Preparedness Guide](#)
- Appendix C – [UV Index Environment and Climate Change Canada](#)



COMMENTS AND GUIDELINES:

Extreme Heat

Exposure to extreme heat can have adverse effects on students' health and wellbeing. Young children and those with certain chronic illnesses are especially vulnerable to heat exhaustion and heat stroke.

Signs of illness associated with extreme heat include:

- Nausea
- Light headedness
- Weakness
- Disorientation
- Extreme fatigue
- Rapid heart rate
- Swelling
- Thirst / dry mouth

Please call 911 for any student that is in distress. While waiting, move the student to a cool place, apply cold water to large areas of skin or clothing, and fan as much as possible.

Extreme heat is measured using the Humidex which indicates how hot, humid weather feels to the average person.

Humidex values are provided on a daily basis by Environment Canada for [Kitchener-Waterloo](#) and [Cambridge](#).

Humidex Table

Humidex	Degree of comfort
20 - 29	Little discomfort
30 - 39	Some discomfort
40 - 45	Great discomfort; avoid exertion
46 and over	Dangerous; possible heat stroke

Administrators should take the following actions during periods of extreme heat:

- Humidex values between 30 – 39 – monitor students who are engaged in physical activities and ensure students have access to shaded areas, water, and periods of rest as appropriate. Educators may choose alternative activities or modifying activities where it is reasonable to do so.
- Humidex values between 40 - 45 – outdoor physical activity should be avoided, and where necessary, scheduled sports events where the majority of the event is forecasted to be over 40, should be cancelled. Outdoor breaks should be shortened to a maximum of 20 minutes. Students should have ongoing access to shade, water, and cooled areas if available.
- Humidex values over 45 – students should remain inside for breaks.

Appendix A contains information on Extreme Heat from the Ontario Physical Activity Safety Standards in Education (OPASSE). This information may be helpful in planning events and associated communications to families.

Extreme Cold

During periods of extreme cold, special consideration must be given to the safety and well-being of students while they are outside at recess, lunch, or for other outdoor activities.

Exposure to the cold can be hazardous or even life-threatening. The body's extremities, such as the ears, nose, fingers, and toes, lose heat the fastest. Exposed skin may freeze, causing frostnip or frostbite. In extreme conditions or after prolonged exposure to the cold, the body core can also lose heat, resulting in hypothermia.

Extreme cold is assessed using Wind Chill values. Wind Chill is a term used to describe what the air temperature feels like when a combination of cold temperatures and winds is exposed to bare skin. In simple terms, the colder the air temperature and the higher the wind speeds the colder it will feel.

Wind Chill Table

Wind chill	Exposure risk	Health concerns
0 to -9	Low Risk	<ul style="list-style-type: none">Slight increase in discomfort
-10 to -27	Moderate risk	<ul style="list-style-type: none">UncomfortableRisk of <u>hypothermia</u> and <u>frostbite</u> if outside for long periods without adequate protection.
-28 to -39	High risk: exposed skin can freeze in 10 to 30 minutes	<ul style="list-style-type: none">High risk of <u>frostnip</u> or <u>frostbite</u>: Check face and extremities for numbness or whiteness.High risk of <u>hypothermia</u> if outside for long periods without adequate clothing or shelter from wind and cold.

Administrators should take the following actions during periods of extreme cold:

- When the Wind Chill is between -20°C and -27°C, principals will move to a shortened outdoor recess and lunch period. This period will not be longer than 20 minutes.
- When the Wind Chill is lower than -27°C, students must remain inside

Temperatures and wind speed vary across the Region. Please consult Environment Canada for current Wind Chill conditions in [Kitchener-Waterloo](#) and [Cambridge](#).

Appendix B contains information on Extreme Cold from the Ontario Physical Activity Safety Standards in Education (OPASSE). This information may be helpful in planning events and associated communications to families.

Air Quality

Air Quality is measured by the Air Quality Health Index, which is a tool designed to communicate the health risk for students vulnerable to the effects of air pollution (students with diabetes, heart, and lung disease) as well as for the general student body. It forecasts local air quality for the current day and the next day. It is designed to assist in health-related decisions. The index does not measure the effects of odour, pollen, dust, heat, or humidity on health.

Administrators should take the following actions when the Air Quality Health Index rises:

Air Quality Health Index 4-6

- Health Risk: Moderate
- For at risk students: Consider reducing or rescheduling strenuous activities outdoors if students are experiencing symptoms.
- For the general student population: No need to modify your usual outdoor activities unless you/students experience symptoms such as coughing and throat irritation.

Air Quality Health Index 7-10

- Health Risk: High
- For at risk students: Reduce or reschedule strenuous activities outdoors. Students should also take it easy.
- For the general student population: Consider reducing or rescheduling strenuous activities outdoors if students experience symptoms, such as coughing.

Air Quality Health Index Above 10

- Health Risk: Very High
- For at risk students: Avoid strenuous activities outdoors. Students should avoid outdoor physical exertion.
- For the general student population: Reduce or reschedule strenuous activities outdoors, especially if students experience symptoms, such as coughing and throat irritation.

The Environment Canada Air Quality Health Index for [Kitchener](#) should be used as a proxy for all schools in the Region.

Students Attending Events and Cancelling/Postponing Events

When students are scheduled to attend events not solely sanctioned by the WCDSB and/or District 8 Athletic Association and the event is forecasted to be affected by extreme temperatures, school staff will determine if student(s) will attend and participate in the event. Further, parents/guardians can withdraw their child from a scheduled event if they believe the child participating is not in their best interest.

When interschool athletic events are hosted solely by the WCDSB and/or District 8 Athletic Association, and the majority of the event is forecasted to be affected by extreme temperatures, full day events will be postponed/cancelled by 6:00 A.M., or three (3) hours before the scheduled start time if the event begins after the scheduled school day. Some exceptions may apply for District 8 when competitions can be modified to accommodate extreme weather. Every effort will be made to reschedule postponed/canceled events; however, it may not always be possible.

Ultraviolet (UV) Index and Sun Exposure

UV rays can cause sunburn, eye cataracts, skin aging, and skin cancer. The amount of UV received depends on the strength of the sun, as measured by the UV Index, and the amount of time you spend in the sun. Protection is important - by checking the UV index and by wearing a hat, sunglasses, sunscreen, and spending less time in the sun.

While there are no procedures associated with exposure to ultraviolet light, administrators may wish to reference the information contained in Appendix C as part of their planning and ongoing communications to families.

Thunder and Lightning

Lightning strikes, resulting ground current, and side flash can cause severe injuries or death. Staff and students should be moved into a permanently enclosed structure with plumbing and electricity (school building, church, or library) where possible when lightning is seen or thunder is heard. Students and staff should not go outside again until 30 minutes after the last rumble of thunder is heard.

Where a permanently enclosed structure is not immediately available, staff and students should not take shelter near tall objects such as trees, flag poles, utility posts, or tall fences such as a baseball backstop. Shelter should be taken in low lying areas, or in vehicles including school buses.

Please note it is safe to handle someone who has been injured by lightning. Call 911 immediately for medical help.