

Wind Chill Factors/Heat Stress Index

Part I WIND CHILL FACTORS

WIND CHILL DETERMINATION CHART

| Temperature | Winds calm | 5 mph | 10 mph | 15 mph | 20 mph | 25 mph | 30 mph | 35 mph |
|-------------|------------|-------|--------|--------|--------|--------|--------|--------|
| 50° | | | | | | | | |
| 40° | | | | 32 | 30 | 29 | 28 | 28 |
| 30° | 30 | 25 | 21 | 19 | 17 | 16 | 15 | 14 |
| 20° | 20 | 13 | 9 | 6 | 4 | 3 | 1 | 0 |
| 10° | 10 | 1 | -4 | -7 | -9 | -11 | -12 | -14 |
| 0° | 0 | -11 | -16 | -19 | -22 | -24 | -26 | -27 |

National Weather Service

How cold is too cold to allow outdoor play?

Factors such as; temperature, wind chill, frozen ground, and sunshine all need to be taken into account when considering outdoor activities.

- Wind chills of 15° to 30° are *cold*; no students should be permitted outside in these conditions without appropriate clothing (coats, hats, mittens).
- Wind chills of 0° to 15° are *very cold*, older students may play outside for short periods of time **only with appropriate clothing**.
- Wind chills between -20° and 0° are *bitter cold* with a significant risk of frostbite; students **should not go outside** for play.
- Wind chills less than -20° are *extreme* and frostbite is likely. Students **should not be outside for play or dismissal**.

Consult your local weather to determine actual wind speeds and temperatures in your school area. www.wrc.weatherplus.com is an excellent site that can be tailored to your location.

Part II
OFFICE OF CATHOLIC SCHOOLS DIOCESE OF ARLINGTON
HEAT STRESS INDEX

| RELATIVE HUMIDITY (%) | | | | | | | | | | | | | |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
| 110 | 136 | | | | | | | | | | | | |
| 108 | 130 | 137 | | | | | | | | | | | |
| 106 | 124 | 130 | 137 | | | | | | | | | | |
| 104 | 119 | 124 | 131 | 137 | | | | | | | | | |
| 102 | 114 | 119 | 124 | 130 | 137 | | | | | | | | |
| 100 | 109 | 114 | 119 | 124 | 130 | 137 | | | | | | | |
| 98 | 105 | 109 | 113 | 117 | 123 | 128 | 134 | | | | | | |
| 96 | 101 | 104 | 108 | 112 | 116 | 121 | 126 | 132 | | | | | |
| 94 | 97 | 100 | 103 | 106 | 110 | 114 | 119 | 124 | 129 | 135 | | | |
| 92 | 94 | 96 | 99 | 101 | 105 | 108 | 112 | 116 | 121 | 126 | 131 | | |
| 90 | 91 | 93 | 95 | 97 | 100 | 103 | 106 | 109 | 113 | 117 | 122 | 127 | 132 |
| 88 | 88 | 89 | 91 | 93 | 95 | 98 | 100 | 103 | 106 | 110 | 113 | 117 | 121 |
| 86 | 85 | 87 | 88 | 89 | 91 | 93 | 95 | 97 | 100 | 102 | 105 | 108 | 112 |
| 84 | 83 | 84 | 85 | 86 | 88 | 89 | 90 | 92 | 94 | 96 | 98 | 100 | 103 |
| 82 | 81 | 82 | 83 | 84 | 84 | 85 | 86 | 88 | 89 | 90 | 91 | 93 | 95 |
| 80 | 80 | 81 | 81 | 82 | 82 | 82 | 83 | 83 | 84 | 85 | 86 | 86 | 87 |

Schools without air conditioning may dismiss early when the heat index exceeds 100.

How hot is too hot to allow outdoor activities?

- Heat index of **130 or higher** is *extremely dangerous*. Heat stroke is highly likely with continued exposure.
- Heat index of **105-129** is *dangerous*. Heat stroke, heat cramps or heat exhaustion is likely; heat stroke is possible with prolonged exposure and/ or physical activity.
- Heat index of **90 – 104** *requires extreme caution*. Heat stroke, heat cramps and heat exhaustion are possible with prolonged exposure and/ or physical activity.
- Heat index of **80 – 89** *requires caution*. Fatigue is possible with prolonged exposure and or physical activity.

Heat Cramps - may occur after prolonged exposure to heat. They are the painful intermittent spasms of the abdomen and other voluntary muscles.

Heat Exhaustion - may result from physical exertion in hot environments. Symptoms may include profuse sweating, weakness, pale skin, rapid pulse, dizziness, nausea, headache, vomiting, and unconsciousness. The skin is cool and clammy with sweat. Body temperature may be normal or subnormal.

Heat Stroke - is a serious medical condition that urgently requires medical attention. Sweating is diminished or absent, which makes the skin hot and dry. Body temperature is very high (106 degrees F. and rising), and if uncontrolled, may lead to delirium, convulsions, coma, and even death.