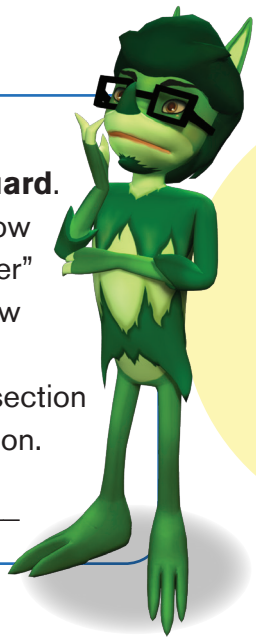
Preparing for Severe Winter Weather



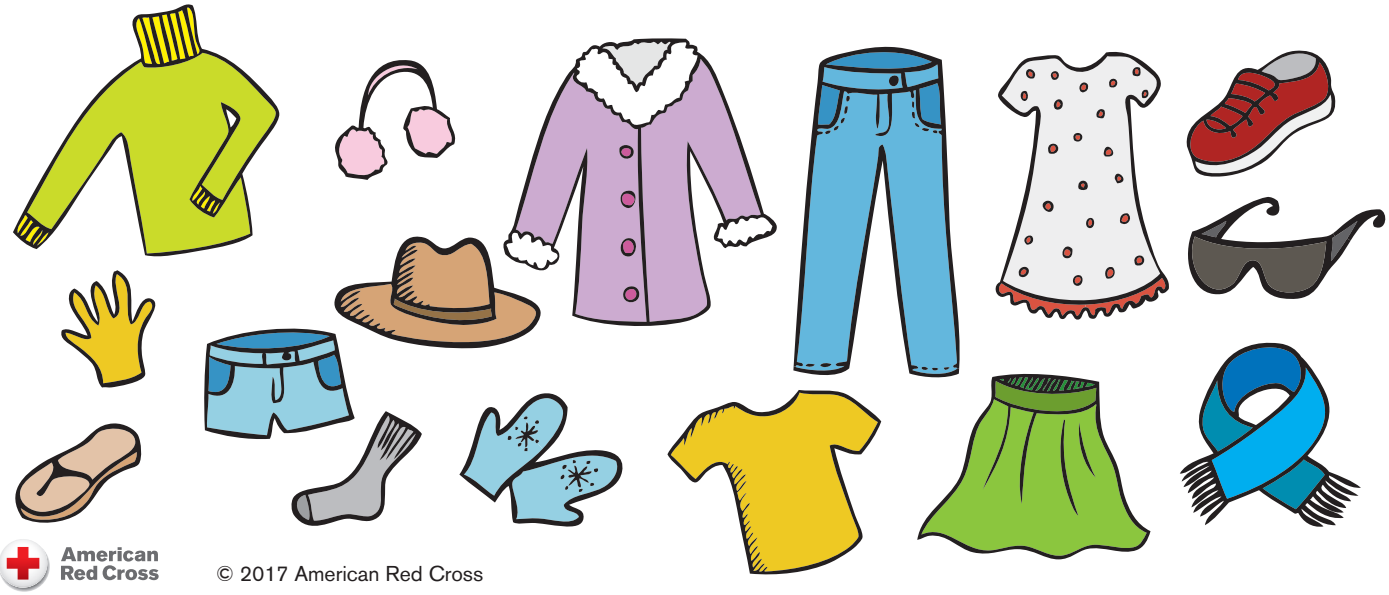
Hi! I'm Hugo. Winter sports are fun. But severe winter weather can be dangerous. Want to learn more? Download **Monster Guard**. It's a free app from the American Red Cross that teaches kids how to be prepared for emergencies. Choose "Severe Winter Weather" on the main menu to join me on a training mission. You'll learn how to stay safe when you have to be outside when it's really cold.
Note: You must have completed the **Monster Guard** Initiation section before you can access the Severe Winter Weather training mission.

My Severe Winter Weather Safety Score: _____

Part 1

Do you remember your severe winter weather safety training? Show what you learned by making a list of clothing it would be better to wear to protect yourself if you have to go outside in severe winter weather.

CLOTHING ITEM	WHY IT'S IMPORTANT



Too Cold for Comfort

Part 2

You've probably heard weather reporters talk about the wind chill. They might say, "It's 15 degrees outside, but with the wind chill, it feels like 2 below zero!" Did you ever wonder how it can feel so much colder than it really is?

Your body knows the answer. It produces heat that warms up the air next to your bare skin, creating a thin layer of warmer air on your face and hands. When it is windy, this thin layer of air gets pushed away, and your body has to work harder to keep your bare skin warm. To your body, it feels colder than it really is, because it has to produce as much heat as it would on a much colder day.

Weather forecasters look up the wind chill on a chart like this one. You just need to know the air temperature and the wind speed. The chart also shows how quickly you can get frostbite when the wind chill temperature is really low. Frostbite happens when a part of your body starts to freeze. If you get a tingly or numb feeling, especially in a part of your body that is exposed to the cold, like your ears or nose, that could be frostbite. But with the wind chill chart, you can plan to come inside and warm up before that happens!

Use this wind chill temperature chart to give winter weather advice to the kids in the situations described below. For each situation, use the air temperature and wind speed to look up the wind chill temperature (wct). Then look at the shading for that wind chill temperature to determine how quickly frostbite could occur: in more than 30 minutes, in 30 minutes, in 10 minutes. Use your math skills to figure out when the kids need to come inside to avoid frostbite.

Wind Chill Temperature Chart

	15°	10°	5°	0°	-5°	-10°	-15°
5 mph	wct 7°	wct 1°	wct -5°	wct -11°	wct -16°	wct -22°	wct -28°
10 mph	wct 3°	wct -4°	wct -10°	wct -16°	wct -22°	wct -28°	wct -35°
15 mph	wct 0°	wct -7°	wct -13°	wct -19°	wct -26°	wct -32°	wct -39°
20 mph	wct -2°	wct -9°	wct -15°	wct -22	wct -29°	wct -35°	wct -42
25 mph	wct -4°	wct -11°	wct -17°	wct -24°	wct -31°	wct -37°	wct -44°
Frostbite Times:		**> 30 min.**		**30 minutes**		**10 minutes**	

1. Air Temperature: 0°F Wind Speed: 15 mph Wind Chill Temperature: _____°F

Josh has been shoveling snow for 20 minutes, but the driveway is only half done. It will take him another 20 minutes to finish. Is it OK for Josh to keep shoveling? Why?

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2. Air Temperature: -15°F Wind Speed: 20 mph Wind Chill Temperature: _____°F

School is closed because of a big snow storm and Samantha wants to play with her friend, Lia. It's only a 15-minute walk to Lia's house. Is it okay for Samantha to walk there? Why?

Replay the Monster Guard Severe Winter Weather training mission. See if you can score higher!