Area and Perimeter Formulas

To Find:	Formula:
Perimeter of a rectangle	Add the sides P= 2(l+w)
Perimeter of a square	Add the sides P= 4s
Area of a rectangle	A = l x w
Area of a square	A = s^2

White Mountain Checkpoint Design

Checkpoints

There are currently 26 checkpoints on the northern route and 27 on the southern route where mushers must sign in. Some mushers prefer to camp on the trail and immediately press on, but others stay and rest. Mushers purchase and pack their supplies and equipment and have them flown ahead to each checkpoint by the Iditarod Air Force. The gear might include food, extra booties for the dogs, headlamps for night travel, batteries (for the lamps, music, or radios), tools and sled parts for repairs, and even lightweight sleds for the final dash to Nome. There are three mandatory rests that each team must take during the Iditarod: one 24-hour layover, to be taken at any checkpoint; one eight-hour layover, taken at any checkpoint on the Yukon River; and an eight-hour stop at White Mountain.

White Mountain has a population of about 209 people and is an Inupiat Eskimo community. The checkpoint there is at their community hall/ library.

Pretend they have asked for your help in setting up the checkpoint for this year's race.

The grid on the next page represents the bird's eye view floor plan of the main space in the building.

- You need to divide the space so that all of the following things can be fit into the space.
- Be sure to label every item you put on the map! You can write on the map or code it and include a key.
- You also need to complete the area/perimeter chart so that the race volunteers can be sure to make the space match your design.

Scale: One square = 2 Feet

Required Elements:

1. The volunteers who do the checking in need an area near the door. They need a desk that is at least 5 feet long and 2 feet wide to house the computers the volunteers use to update the race information as mushers check in and out.

2. The vets need a large space. They need a space of at least 10 feet by 10 feet to examine dogs. They also need space to house at least 8 dogs in case dogs need to be dropped at the checkpoint. Each dropped dog should have at least a space three feet by three feet.

3. The volunteers need to put up some tables to serve food to the mushers (and themselves!). They have 6 tables that are six feet long and two feet wide. At least 3 need to be used to serve food, but the others can be put around for mushers to relax and eat.

4. There needs to be space for mushers to lay out their sleeping bags in case they choose to sleep inside during their layover. You should plan for there to be ten mushers at the checkpoint at a time. Each musher's sleeping bag needs a space that is 6 feet long and 4 feet wide.

Area/Perimeter Table:

Item/Space	Area	Perimeter
Checkers' desk		
Vets' examination space		
Each dropped dog space		
Each food table		
Each sleeping bag		