

# YOUNG EXPLORERS

## UNDER THE SNOW

THERE IS AN AMAZING, SECRET WORLD UNDERNEATH THE SNOW!



When snow falls, it creates a blanket on the ground that traps the little bit of heat that rises out of the earth. The heat melts just the bottom layer of snow, and this creates a pocket of air that is exactly the right size for tiny creatures to burrow and build tunnels underneath it. Scientists call this the **SUBNIVEAN ZONE**.

### COLD BUT COZY

Just like the blankets on your bed, layers of snow keep the subnivean zone warm. Well, warm for a mouse, anyway! Even when the air outside drops below 0°F, the layer beneath the snow stays right around 32°F. Many animals—like red squirrels, mice, moles, voles, and shrews—depend on this special habitat to survive the cold, harsh winter.

### THE HOLE STORY

Sometimes you'll see little "mouse holes" in the surface of the snow. These are actually air vents that provide fresh air to the animals living below in their tunnels.

### BOTTOMS UP!

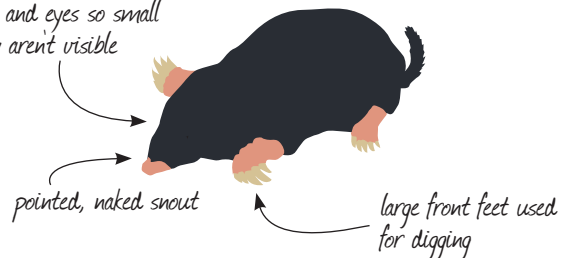
Foxes and owls have excellent hearing, and can sometimes hear the little animals moving around under the snow. You may even see a fox dive face-first into the snow, trying to catch a mouse or shrew by surprise.

### MOLES VS. VOLES VS. SHREWS

In Massachusetts we have 3 mole, 5 vole, and 5 different shrew species! Here are some tips on distinguishing these secretive mammals:

#### MOLES

*ears and eyes so small they aren't visible*



#### VOLES

*rounded ears and body*



#### SHREWS

*visible eyes*



Can you spot any holes for air vents in the surface of the snow?



What do you do to keep warm in the winter?



Watch for the snow to melt with the next thaw—can you see any tunnels in the grass?



Watch a video of a subnivean creature digging a tunnel right before your eyes at [massaudubon.org/youngexplorers](https://massaudubon.org/youngexplorers).