



Do You Think You're Smarter than a Squirrel?

The coming of spring brings joy to many Ontarians, but for some animals, spring can be the leanest time of year. In spring, eastern grey squirrels eat the leaf buds from hardwood trees, but until these buds emerge, squirrels rely on any nuts remaining from their winter store.

Now pause for one second. Can you remember exactly what you did one day ago, one week ago, or one month ago? (Can you even remember a time before physical distancing?). Imagine if your life depended on collecting, hiding, and then remembering where months of food was safely hidden away. For squirrels, this means caching and remembering thousands of hidden food items while keeping their location a secret from other squirrels who will pilfer the stash of another squirrel.

Squirrels employ a technique called scatter-hoarding – burying their food supply in many locations. While this method requires more running around and memorization, it does lower the risk that a food cache is discovered or ruined.

But how can a squirrel memorize the location of thousands of objects? In fact, what appears frantic and random to humans is actually a carefully planned system called chunking, where items are arranged and buried according to certain characteristics like nut type, nutritional quality, and longevity.

By combining an excellent sense of smell with a spatial memory capable of holding the location of an entire winter's worth of nuts, squirrels can usually locate up to 95% of their cached food. Add to this the cunning of behaviour of carefully rearranging leaves over disturbed soil to hide their cached sites and pretending to bury nuts when other squirrels are watching, you have one remarkable little Ontario mammal.

Now you Try:

Find 20-50 small, similar, and identifiable items (bread tags, Legos etc). Either inside or outside your home, hide your items. Come back in one week and try to find as many as you can in 5 minutes.

Now let's make this a real challenge. Grab a partner. Each person hides an identical number of items at the same time. Can you keep the location of your items a secret from your partner? Can you spy on your partner and see where they hid their items? Come back in one week and try to find as many items (yours and your partners) as you can in 5 minutes. Who ever finds the most wins (and if you were a squirrel, winning would mean living another year)!