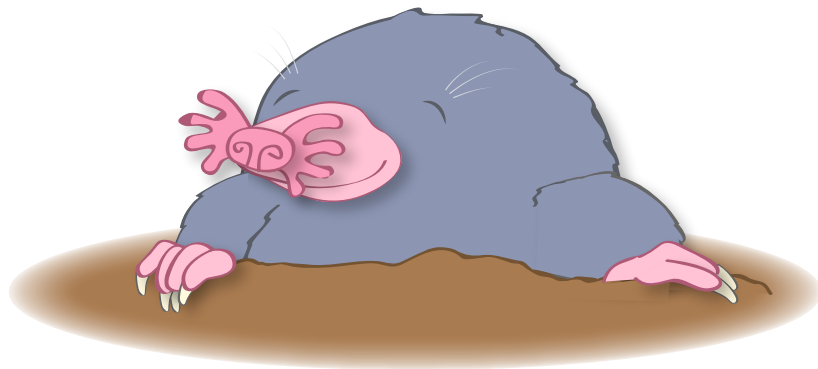


Holy Mole-y!

Mole Day celebrates Avogadro's number, 6.02×10^{23} . This number is a constant unit of measure that is used to calculate the molar mass of a substance. This year, celebrate Mole Day with a different type of mole.

Collect

- 7 pipe cleaners
- Blindfold or bandana
- Tabletop
- Variety of small objects such as a cup, set of keys, pencil, or rubber ball



Make a mole nose.

1. Bundle six of the pipe cleaners together, making sure the ends are level with each other.
2. Take the remaining pipe cleaner and wrap it around the middle of the bunch, twisting to secure the pipe cleaners in place.
3. Bend the bunch in half, so all of the ends are facing the same direction. Fan and spread the pipe cleaners out to complete the nose.

See with your nose!

4. Hold your pipe cleaner nose in one hand, making sure the ends of the pipe cleaner are spread out in front of your hand.
5. Ask a friend or grown-up to help you with the blindfold. When you can't see anything, have them place a few small objects on the table for you to find.
6. Pretend you're a star-nosed mole and use your "nose" to feel around the table. Can you tell when one of the pipe cleaners hits an object?

What's happening?

Unlike a mole in chemistry, the kind of mole you're mimicking in this activity refers to the small mammal that lives in underground tunnels. Most moles have very poor eyesight, so instead they use their other senses to help them navigate the world.

One type of mole, the star-nosed mole, has 22 finger-like appendages that are covered in small structures called Eimer's organs. This nose doesn't help the mole smell. Instead, a mole's nose serves as a tactile organ (kind of like human skin) that helps them sense their surroundings, make their way through tunnels, and find food. Think about how you used the pipe cleaners to help you find the objects on the table - how is your pipe cleaner nose similar to a star-nosed mole's nose?