I think my teacher needs a vacation! Today in science class, she kept talking about some new kid named Adam, but I never saw him.

Do you think she was talking about something else?

She told us to read this chapter in our science book tonight!

Scorpy, she wasn’t talking about a boy named Adam, she was talking about “Atoms”! They are not the same thing!

What in the world are atoms?

What in the world isn’t! Atoms make up everything around us!

I think we should spend some time exploring these tiny building blocks.

Sounds great! Let’s get up and “Atom”!
This first section is called "Matter"... is it talking about feeling sad?

Nothing is the matter with this type of matter, Scorpy. Let's check the definition in your science book.

Matter is any object that has mass and takes up space. Matter can be different colors, shapes, textures or sizes. Matter can be hard or soft.

Atoms
Chapter 4

So that means that everything is matter! This table takes up space so it's matter... so does this wall, and even us!

That's right, Scorpy! Matter can be solid, like your book, liquid like water in your glass, or gas, like the air around us.

All matter, regardless of its size, shape, or color is made up of tiny particles that are too small to be seen.

I guess I'll think twice now when someone asks "what's the matter"??!
I thought we were going to find a table of elements, dragonfly! This doesn’t look like a table to me.

Scorpy, with so many different kinds of matter, it might surprise you to know that there are only 110 basic kinds, called elements. An element is any material made up of only one kind of matter.

Scientists have organized these elements into a chart called the Periodic Table.

Periodic Table of the Elements

It would be hard to remember all that without a chart!

All elements are made up of atoms. Atoms are the smallest part of an element that still keeps its chemical properties.

Everything is built by using something else! No wonder we call this type of science the building blocks!
ALL RIGHT! IS THAT A PRESENT FOR ME?

YES, SCORPY, WE ARE GOING TO LEARN ABOUT ATOMS TODAY. ATOMS ARE SO TINY THAT WE CANNOT SEE THEM IN ANY DETAIL, EVEN USING POWERFUL MICROSCOPES.

WELL, IF WE CAN'T SEE THEM, HOW DO WE KNOW WHAT THEY LOOK LIKE?

SCIENTISTS HAVE DONE MANY EXPERIMENTS TO LEARN MORE ABOUT ATOMS. USE THIS BOX AS AN EXAMPLE. YOU CAN'T SEE INSIDE IT, BUT IF YOU SHAKE IT YOU MIGHT GET A CLUE ABOUT WHAT IS IN THERE.

IT SURE MAKES A LOT OF NOISE: IT SOUNDS LIKE THERE IS A PUZZLE IN THERE!

OPEN IT TO SEE IF YOU'RE RIGHT!

USING INDIRECT METHODS, SCIENTISTS HAVE BEEN ABLE TO CREATE AN ATOMIC MODEL. EVERY TIME WE LEARN SOMETHING NEW, WE UPDATE THE MODEL MAKING IT MORE ACCURATE.

NOW, THAT'S WHAT I CALL, PUTTING THE PIECES TOGETHER!
This tiny atom is made up of even smaller parts, Scorp! No way! How can something as small as an atom be broken down?

These parts will show you what an atom is made of. These are protons, neutrons and electrons. Together they make up different atoms.

Protons and neutrons sit at the center, or the nucleus, of the atom. Protons have a positive charge and neutrons have a neutral charge. Orbiting the nucleus are negatively charged electrons. The positive and negative charges attract to each other.

A good way to remember what atoms are is to think of building blocks! Atoms are the building blocks of matter that make up everyday objects. Anything that takes up space, even the air around us, is made from atoms.

Like they say, opposites attract!

I think I get it now! I can’t wait to show off my atomic knowledge!