

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.

Atoms

CHAPTER 4

MATTER

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.

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.

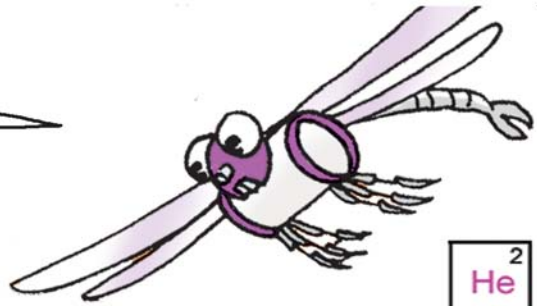
ALL MATTER, REGARDLESS OF ITS SIZE, SHAPE, OR COLOR IS MADE UP OF TINY PARTICLES THAT ARE TOO SMALL TO BE SEEN.

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.

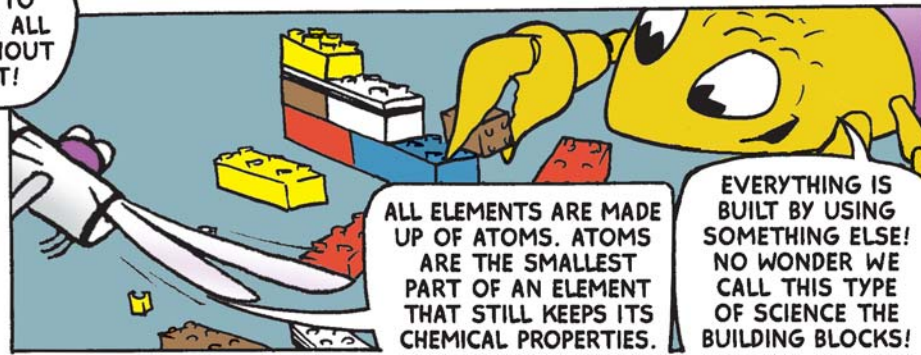


Periodic Table of the Elements

1 H																	2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	104 Unq	105 Unp	106 Unh	107 Uns	108 Uno	109 Une	110 Unn								

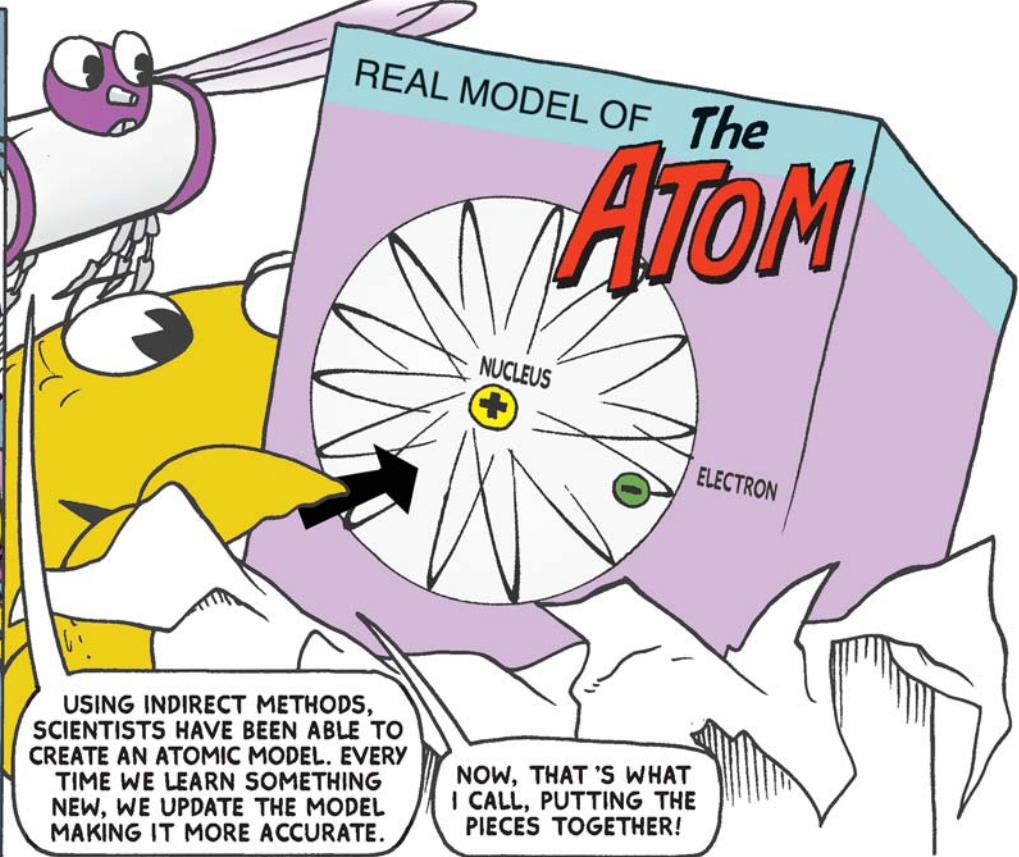
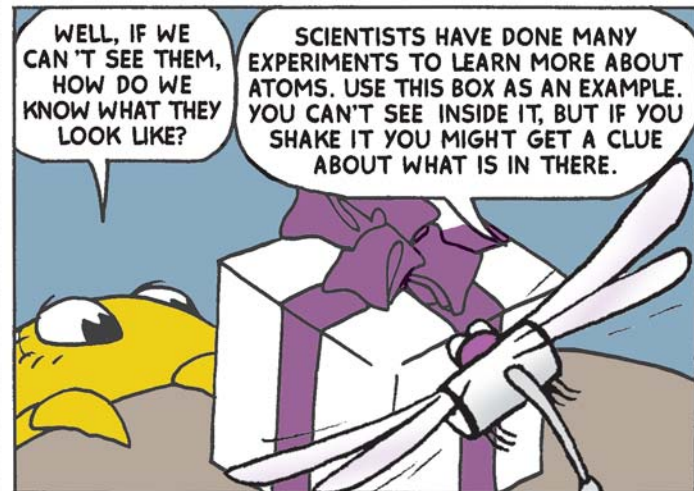
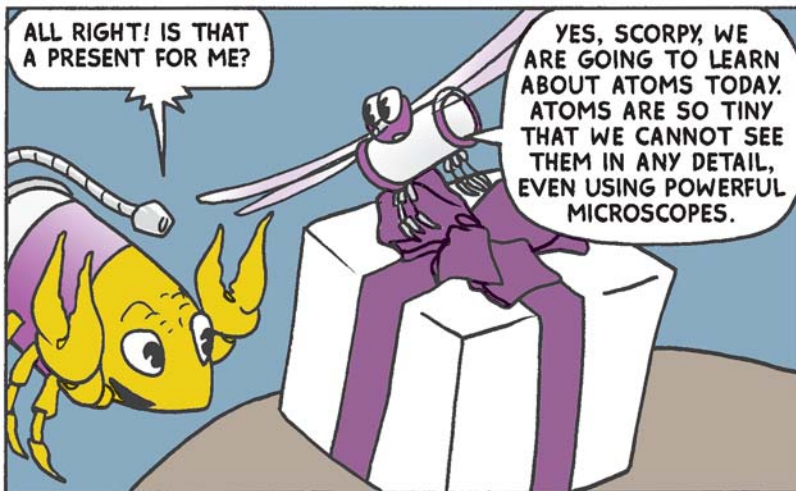
58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

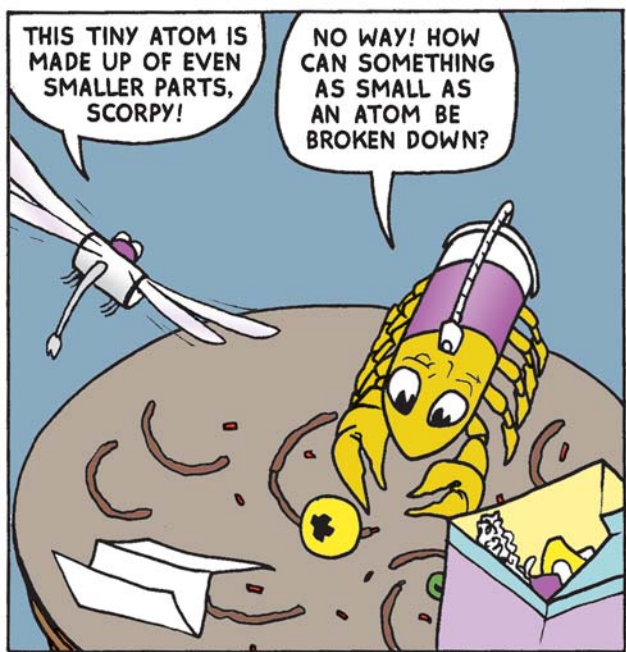
IT WOULD BE HARD TO REMEMBER ALL THAT WITHOUT A CHART!



ALL ELEMENTS ARE MADE UP OF ATOMS. ATOMS ARE THE SMALLEST PART OF AN ELEMENT THAT STILL KEEPS ITS CHEMICAL PROPERTIES.

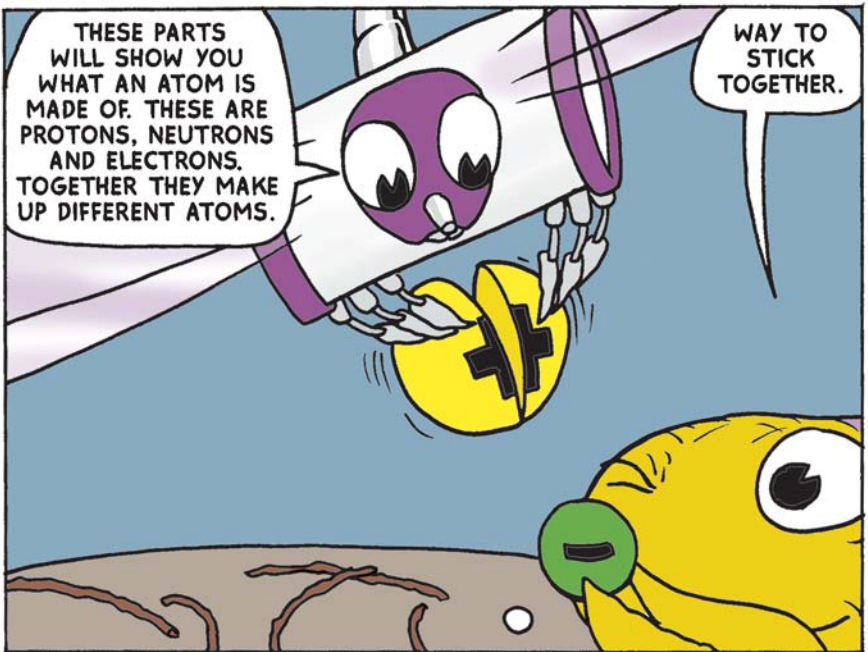
EVERYTHING IS BUILT BY USING SOMETHING ELSE! NO WONDER WE CALL THIS TYPE OF SCIENCE THE BUILDING BLOCKS!





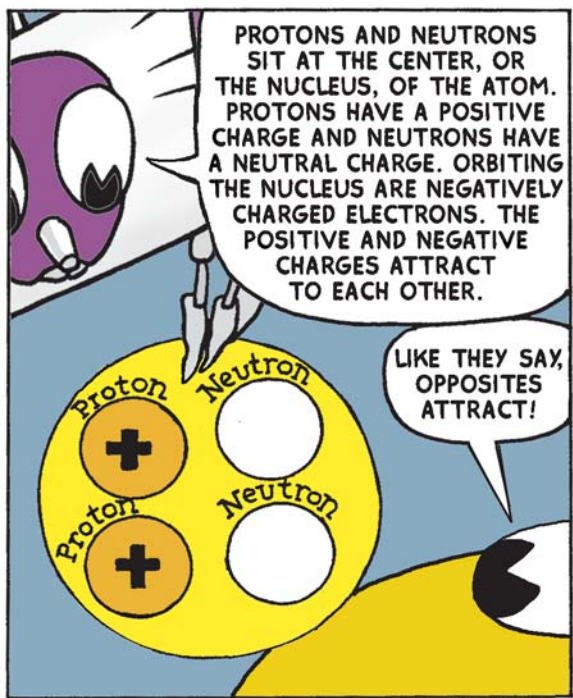
THIS TINY ATOM IS MADE UP OF EVEN SMALLER PARTS, SCORPY!

NO WAY! HOW CAN SOMETHING AS SMALL AS AN ATOM BE BROKEN DOWN?



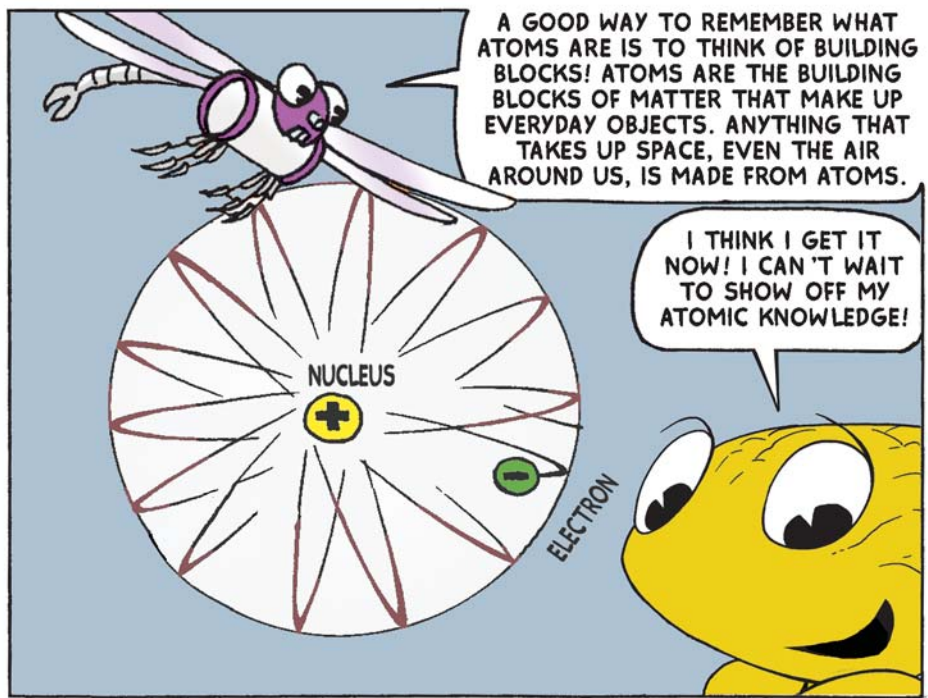
THESE PARTS WILL SHOW YOU WHAT AN ATOM IS MADE OF. THESE ARE PROTONS, NEUTRONS AND ELECTRONS. TOGETHER THEY MAKE UP DIFFERENT ATOMS.

WAY TO STICK TOGETHER.



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.

LIKE THEY SAY, OPPOSITES ATTRACT!



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.

I THINK I GET IT NOW! I CAN'T WAIT TO SHOW OFF MY ATOMIC KNOWLEDGE!