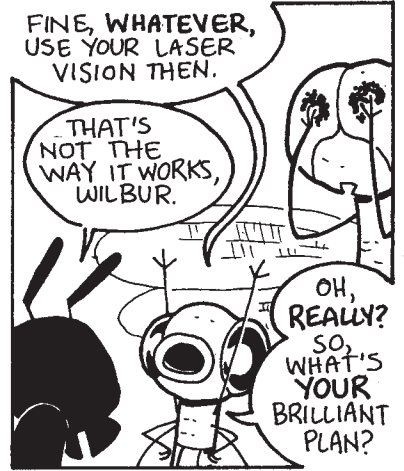
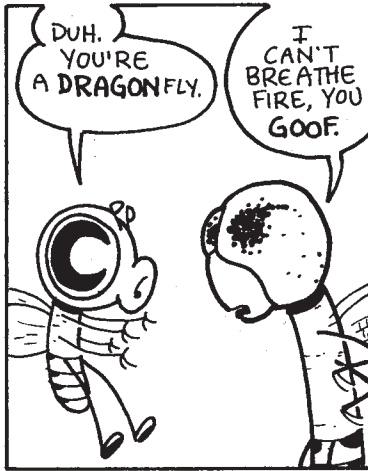
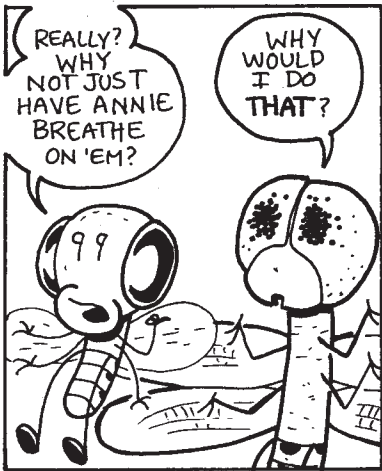
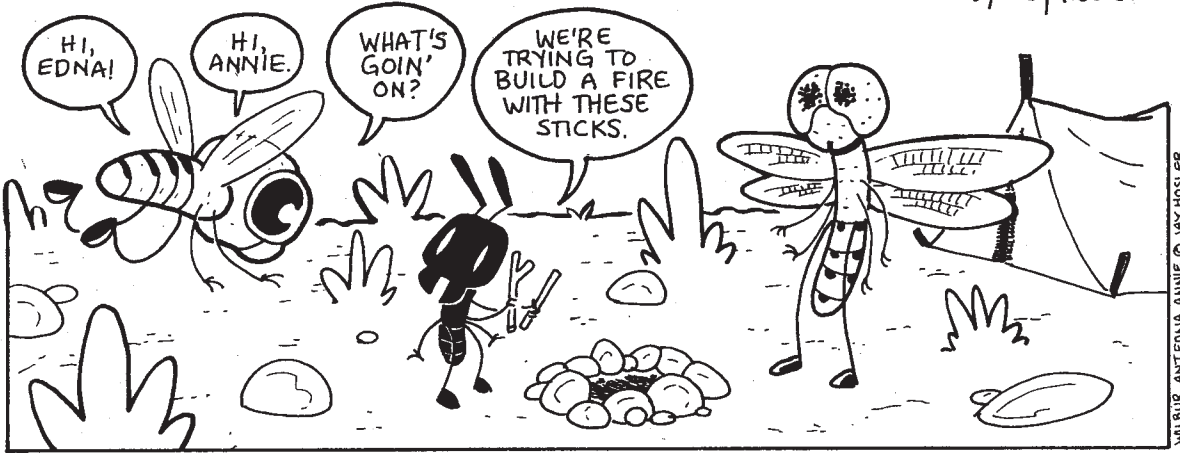
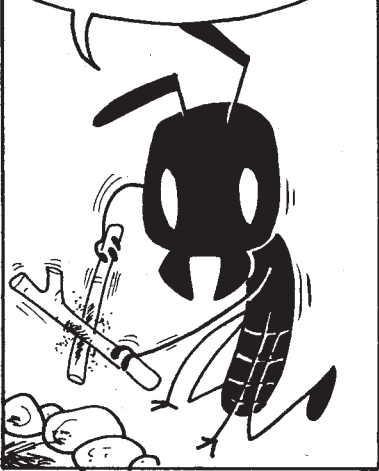


THE FLAME

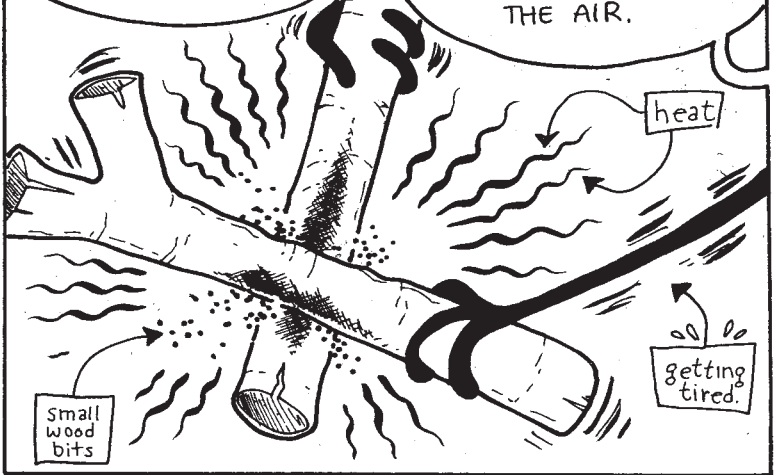
by Jay Hosler



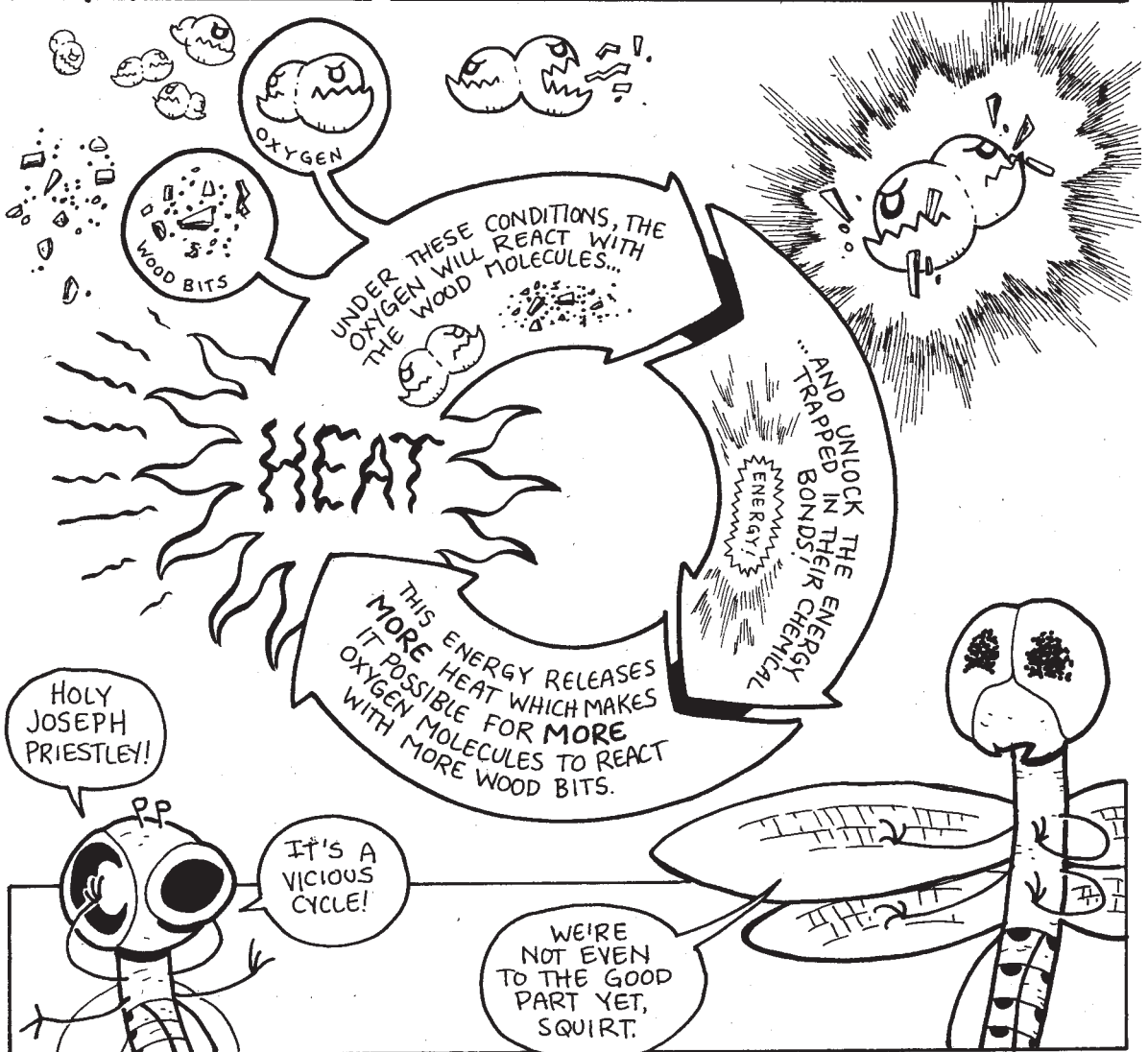
TO START, WE NEED TO RUB SMALL BITS OF THE STICKS OFF INTO THE AIR SO THAT OXYGEN CAN GET EASIER ACCESS TO THE WOOD MOLECULES.



AT THE SAME TIME, WE NEED TO GENERATE ENOUGH HEAT TO START THE REACTION BETWEEN THE WOOD BITS AND THE OXYGEN.



AS I RUB THE STICKS TOGETHER, THE FRICTION MAKES THE WOOD GET HOTTER AND HOTTER WHILE THE SMALL BITS ARE THROWN UP INTO THE AIR.



HOLY JOSEPH PRIESTLEY!

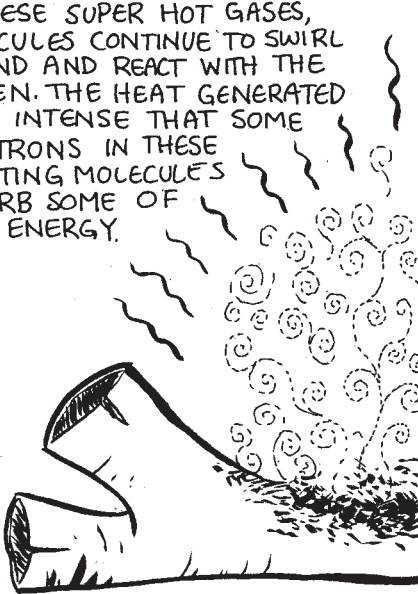
IT'S A VICIOUS CYCLE!

WE'RE NOT EVEN TO THE GOOD PART YET, SQUIRT.

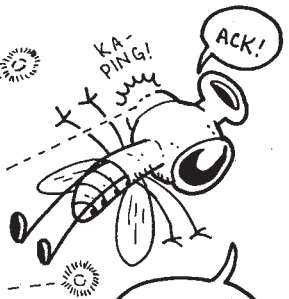
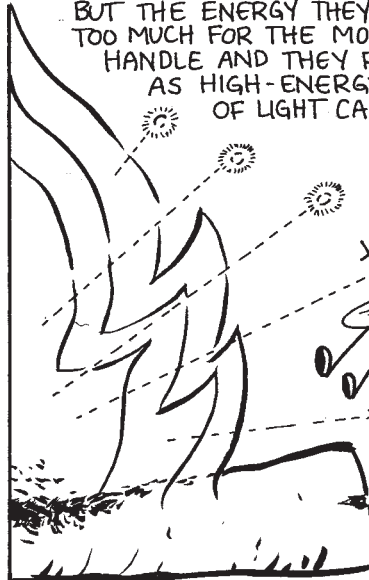


IN ADDITION TO **HEAT**, THESE CHEMICAL REACTIONS RELEASE INVISIBLE GASES THAT DANCE UP FROM THE WOOD.

IN THESE SUPER HOT GASES, MOLECULES CONTINUE TO SWIRL AROUND AND REACT WITH THE OXYGEN. THE HEAT GENERATED IS SO INTENSE THAT SOME ELECTRONS IN THESE REACTING MOLECULES ABSORB SOME OF THE ENERGY.



BUT THE ENERGY THEY ABSORB IS TOO MUCH FOR THE MOLECULES TO HANDLE AND THEY RELEASE IT AS HIGH-ENERGY PARTICLES OF LIGHT CALLED **PHOTONS**.



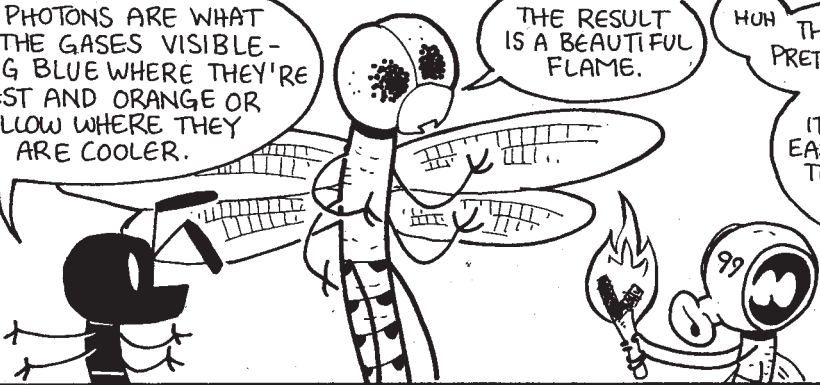
I THINK ONE HIT ME IN THE EYE!

THESE PHOTONS ARE WHAT MAKE THE GASES VISIBLE - GLOWING BLUE WHERE THEY'RE HOTTEST AND ORANGE OR YELLOW WHERE THEY ARE COOLER.

THE RESULT IS A BEAUTIFUL FLAME.

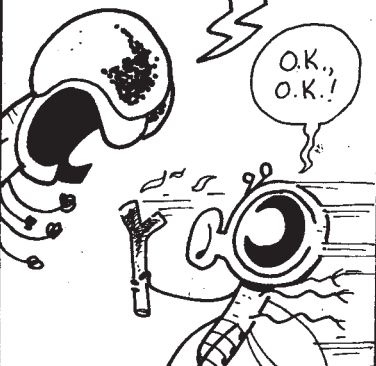
HUH THAT SEEMS PRETTY COMPLICATED.

WOULDN'T IT JUST BE EASIER FOR ANNIE TO BREATHE FIRE ON THE STICK?



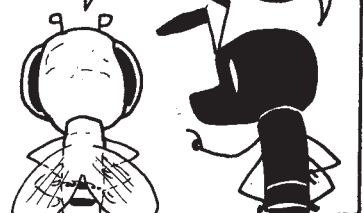
I CAN'T BREATHE FIRE!!

O.K., O.K.!



YEESH, WHAT A HOT HEAD.

DO NOT START WITH THE SILLY WORD PLAY.



IT'S NOT MY FAULT SHE'S FULL OF **HOT AIR**.

O.K., I'M LEAVING.

WHAT? I'M JUST GETTING WARMED UP.



THE END.