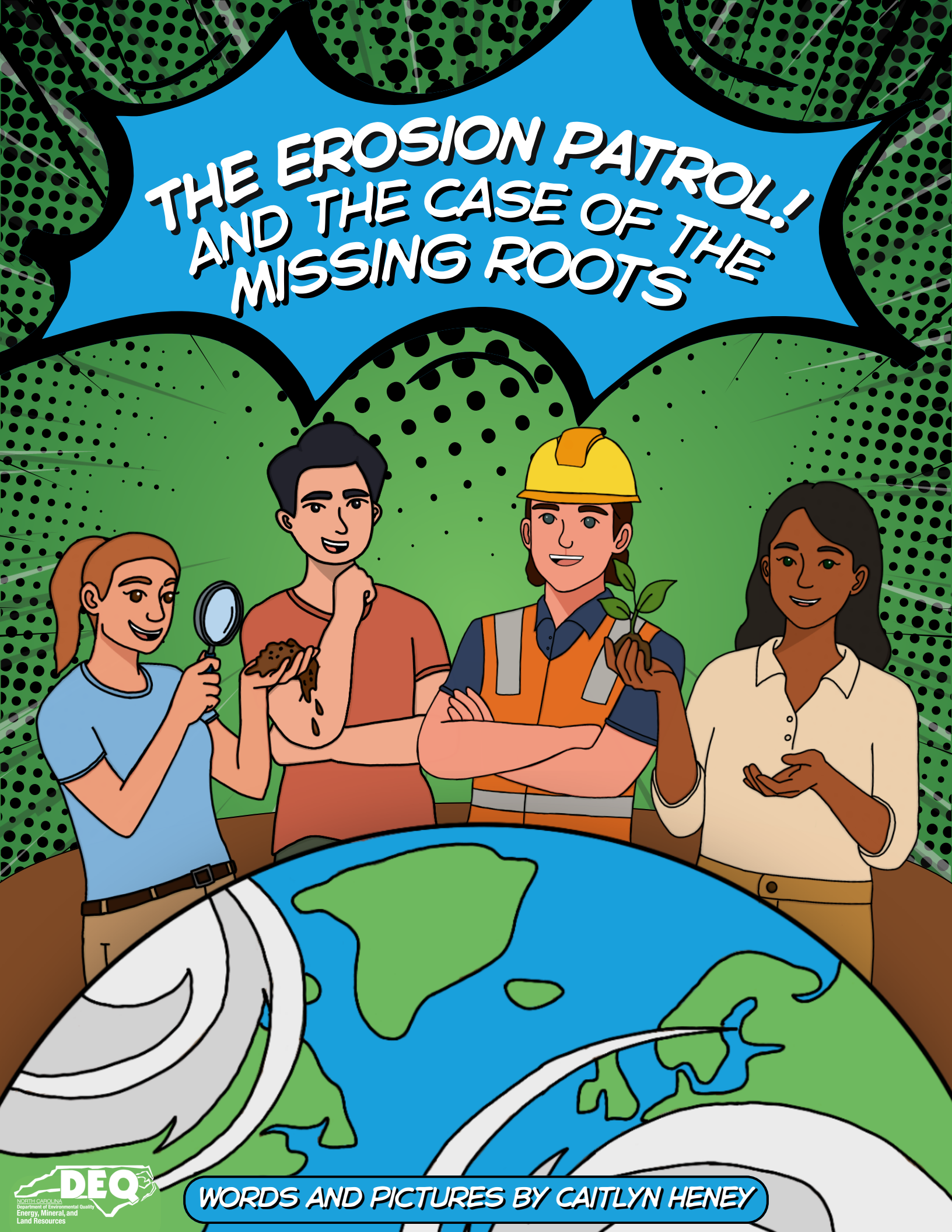
THE EROSION PATROL! AND THE CASE OF THE MISSING ROOTS



WORDS AND PICTURES BY CAITLYN HENEY

NORTH CAROLINA
Department of Environmental Quality
Energy, Mineral, and
Land Resources



AUTHOR'S DEDICATION:

TO MY PERSONAL EROSION PATROL,
THANK YOU FOR YOUR NEVER
ENDING FRIENDSHIP, LOVE, AND
SUPPORT!

~ CAITLYN HENEY

THE ENGINE ROARED TO LIFE AS ROWAN THE FIELD TECHNICIAN TURNED THE KEY TO THE EROSION PATROL TRUCK.

IT RUMBLED AND HUMMED AS LILY THE SOIL SCIENTIST CLIMBED IN. SMILING, ROWAN SAYS "ARE YOU READY FOR ANOTHER DAY?"

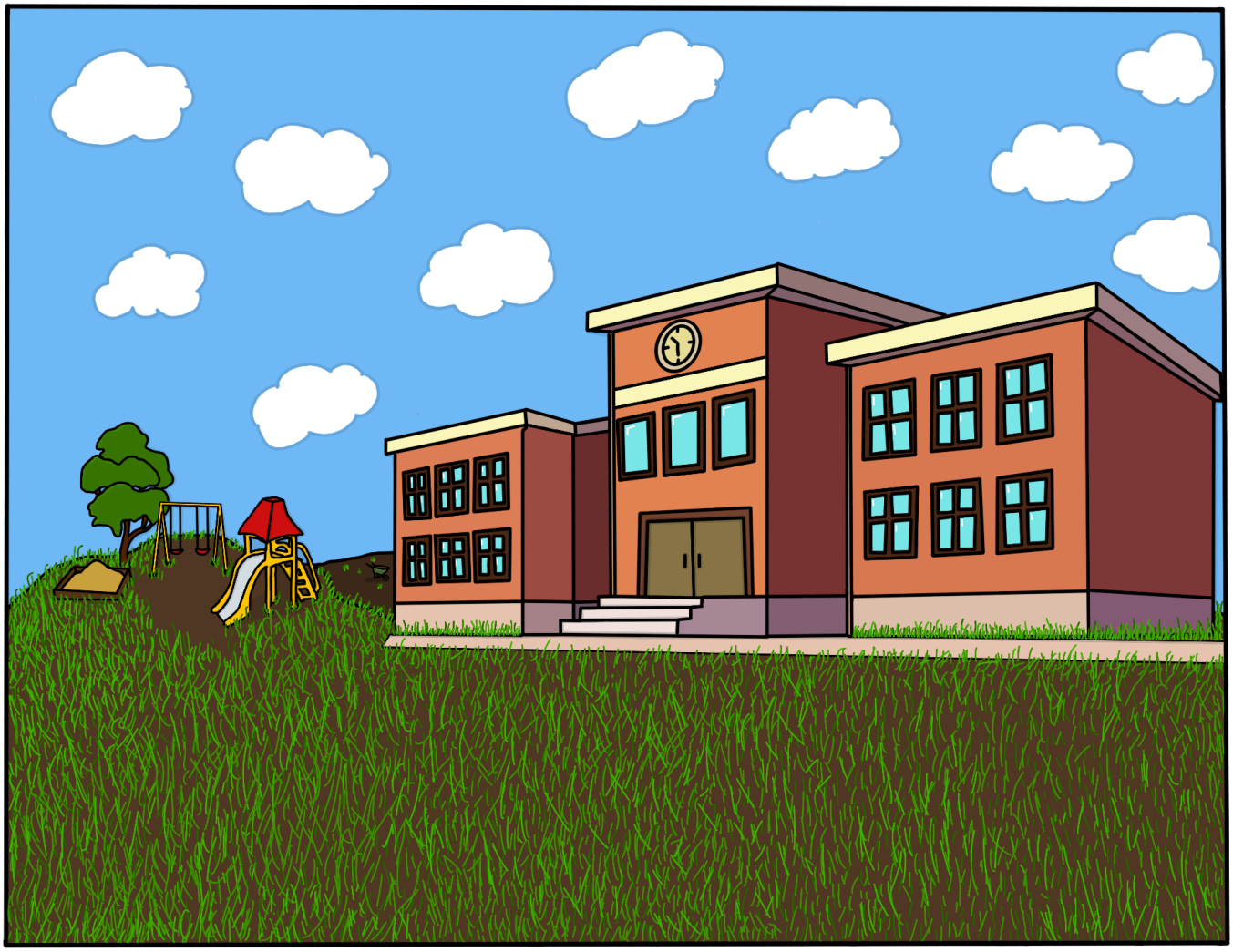


WHILE PUTTING ON HER SEATBELT SHE RESPONDS, "AS MUCH AS I'LL EVER BE!"

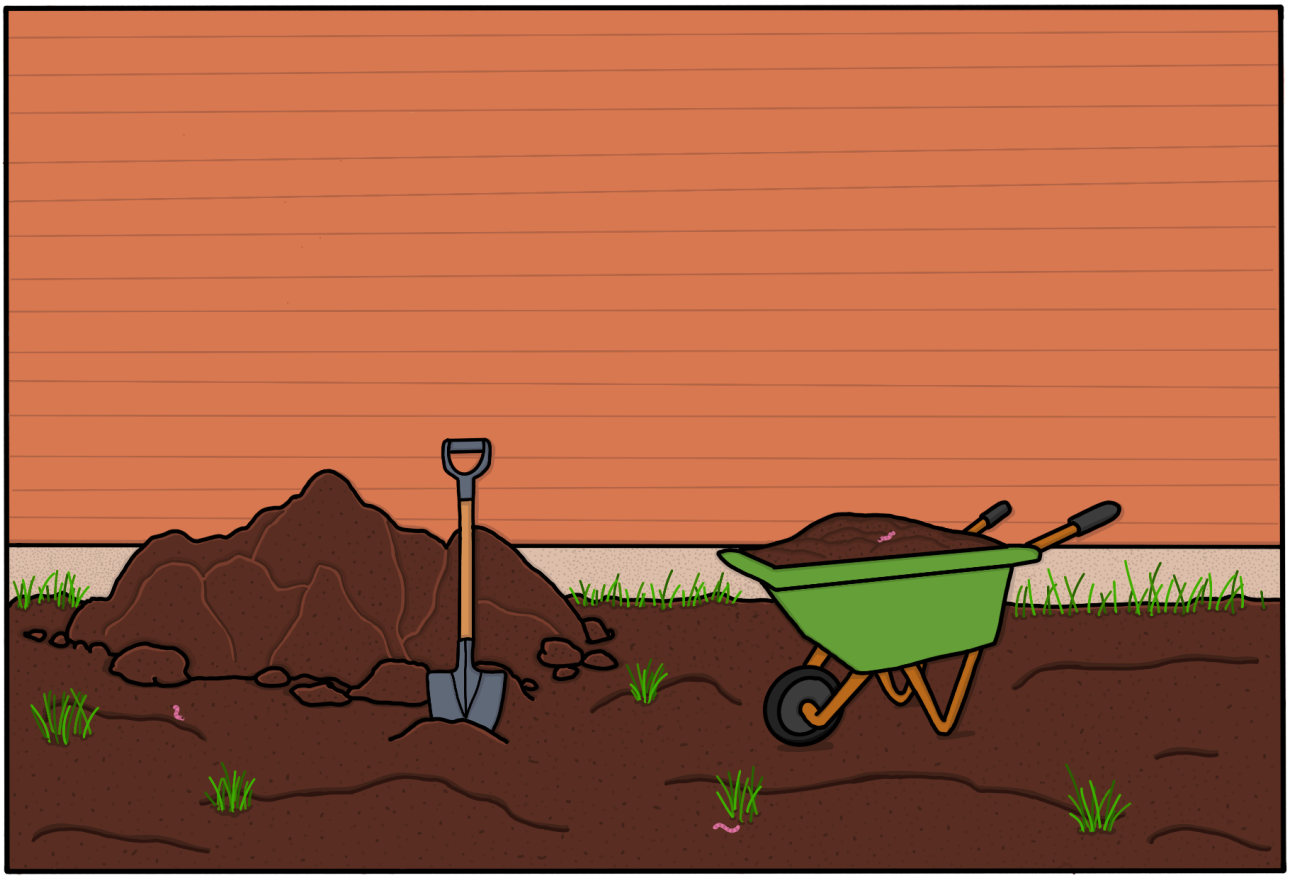
AND THEN THE TEAM WAS OFF, READY TO GO CHECK ON SOME COMPLAINTS ABOUT A SUPER MUDDY PLAYGROUND.

IT HAD FRESHLY RAINED, AND THE SMELL OF WET SOIL FILLED THE AIR. AS THE TWO REACHED THE SCHOOL ALL THEY SAW WAS A FIELD OF BROWN. IT LOOKED LIKE SOMEONE HAD SPILLED CHOCOLATE SAUCE WHILE MAKING AN ICE CREAM SUNDAE.

"GOODNESS! THIS PLACE IS A MESS. NO WONDER WE GOT SO MANY COMPLAINTS." EXCLAIMED LILY.



ROWAN NODDED AND LOOKED AROUND WONDERING WHERE ALL THIS MUD AND SOIL COULD BE COMING FROM. WITH ALL THE MESS IT WAS HARD TO FIND THE SOURCE. SIGHING, THEY BEGAN TO LOOK FOR CLUES.



NEARING THE PLAYGROUND, IT WAS CLEAR WHERE ALL THE MUD CAME FROM. THE SCHOOL LOOKED LIKE IT WAS TRYING TO PUT IN A GARDEN NEAR THE PLAYGROUND, BUT THERE WERE NO PLANTS OR OTHER PROTECTIVE MEASURES TO SHIELD THE SOIL FROM THE RAIN AND WIND.

"WELL, AT LEAST WE FOUND THE PROBLEM" ROWAN SAID.

"YES! BUT WE CAN'T SOLVE THIS ONE ON OUR OWN. I'LL CALL MY FRIENDS PRIYA AND ALAN. IF THE SCHOOL WANTS TO PUT IN A GARDEN, WE NEED TO GET PLANTS PLANTED QUICKLY AND THEY CAN HELP."

THE NEXT DAY, ROWAN, LILY, ALAN, AND PRIYA ALL MET AT THE SCHOOL. "HEY FRIENDS!" LILY CALLED, AS PRIYA AND ALAN APPROACHED THEM AND INTRODUCED THEMSELVES.

"HI! I AM PRIYA, I AM A **HORTICULTURIST**. I KNOW A BUNCH ABOUT PLANTS! THIS IS ALAN, HE IS A **LANDSCAPE ARCHITECT** AND CAN HELP US MAKE PLANS ON HOW TO BUILD THE GARDEN, SO THIS MUDDY MESS DOESN'T HAPPEN AGAIN!"



"THAT'S GREAT! IT'S NICE TO MEET YOU," SAID ROWAN.

"I AM GLAD WE COULD HELP! THIS PLACE SURE IS MUDDY! LET'S GET TO WORK." ALAN SAID WITH DETERMINATION.

"WHILE YOU GUYS DRAW UP SOME PLANS, I WILL GO RESEARCH THE **NATIVE PLANTS** FOR THIS AREA!" PRIYA SAID.

"PERFECT! I WILL TAKE SOME SOIL SAMPLES TO SEE WHAT MIGHT NEED CHANGED OR ADDED TO MAKE SURE THE PLANTS WE CHOOSE WILL GROW HEALTHY AND STRONG," REPLIED LILY.

"ALAN AND I WILL WORK TOGETHER TO MAP OUT A PLAN ON HOW TO BUILD THE GARDEN WITH THE PLAYGROUND IN MIND," ROWAN SAID.

"WE WILL NEED SOME GOOD PATHWAYS TO MAKE SURE KIDS DON'T DISTURB THE GARDEN'S GROUND COVER. I WILL GO GET MY DRAFTING SUPPLIES!" REPLIED ALAN.

WITH THAT, THE EROSION PATROL AND THEIR NEW FRIENDS GOT TO WORK.



LILY STARTED BY CAREFULLY DIGGING A SMALL HOLE IN THE SOIL AND BEGAN TAKING SAMPLES.

"HMM..." LILY SAID AS SHE LOOKED AT THE SOIL. "THIS SOIL IS VERY LOOSE IN SOME PLACES, AND THERE ISN'T MUCH HOLDING IT TOGETHER."

"MAYBE THAT'S WHY THE RAIN WASHED SO MUCH OF IT AWAY?" ROWAN QUESTIONED.

"EXACTLY!" LILY REPLIED. "PLANTS CAN HELP WITH THAT. THEIR ROOTS GROW THROUGH THE SOIL AND HELP HOLD IT IN PLACE."



JUST THEN, PRIYA CAME RUNNING BACK WITH A NOTEBOOK FULL OF INFORMATION.

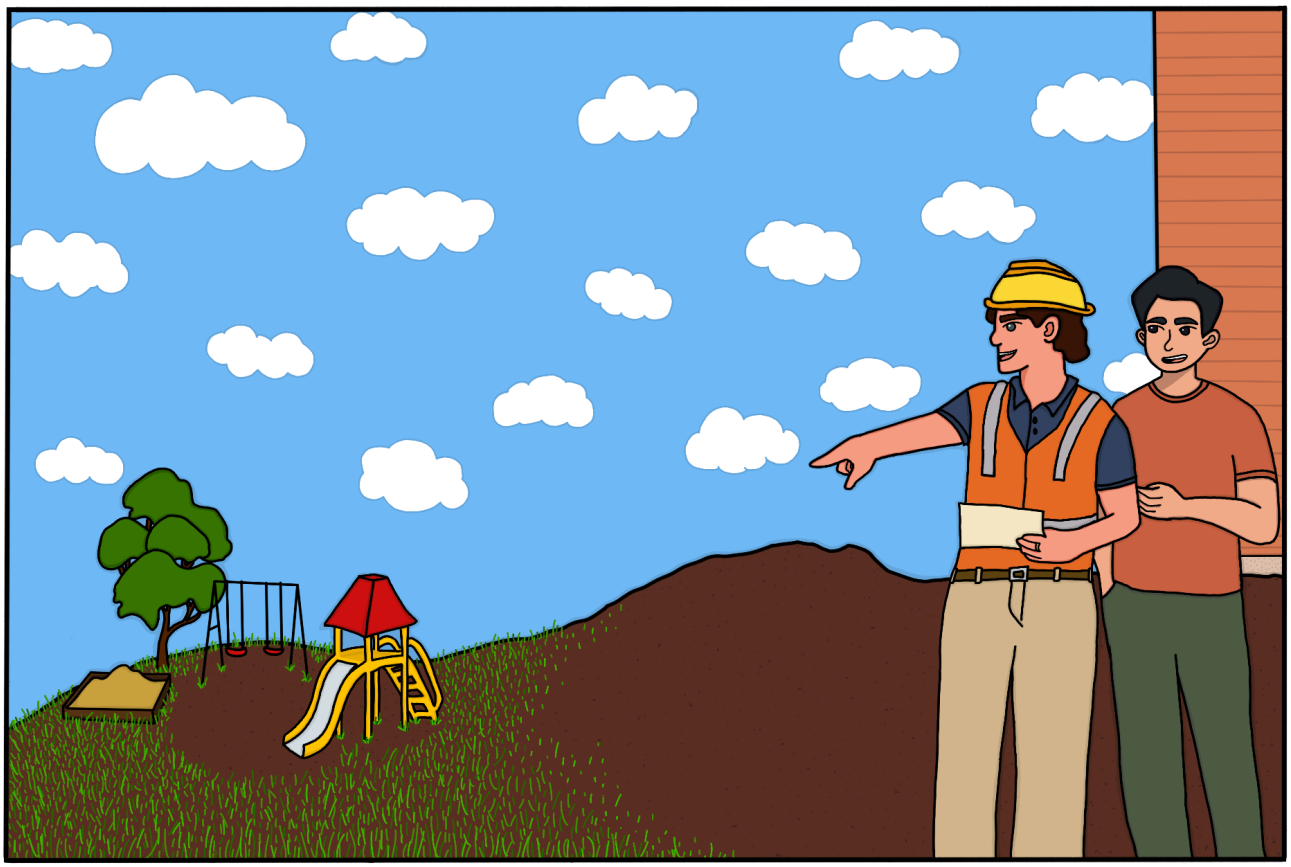
"I FOUND SOME GREAT NATIVE PLANTS!" SHE EXCLAIMED.

"THESE PLANTS ARE USED TO GROWING HERE, AND THEIR ROOTS CAN HELP KEEP THE SOIL FROM WASHING AWAY."

"PERFECT!" LILY SAID. "BUT WE ALSO NEED TO THINK ABOUT WHERE THE WATER GOES."

ROWAN POINTED TOWARD THE MUDDY PLAYGROUND.

"LOOK! THE GROUND SLOPES TOWARD THE PLAYGROUND. WHEN IT RAINS, WATER RUNS DOWNHILL AND CARRIES SOIL WITH IT."



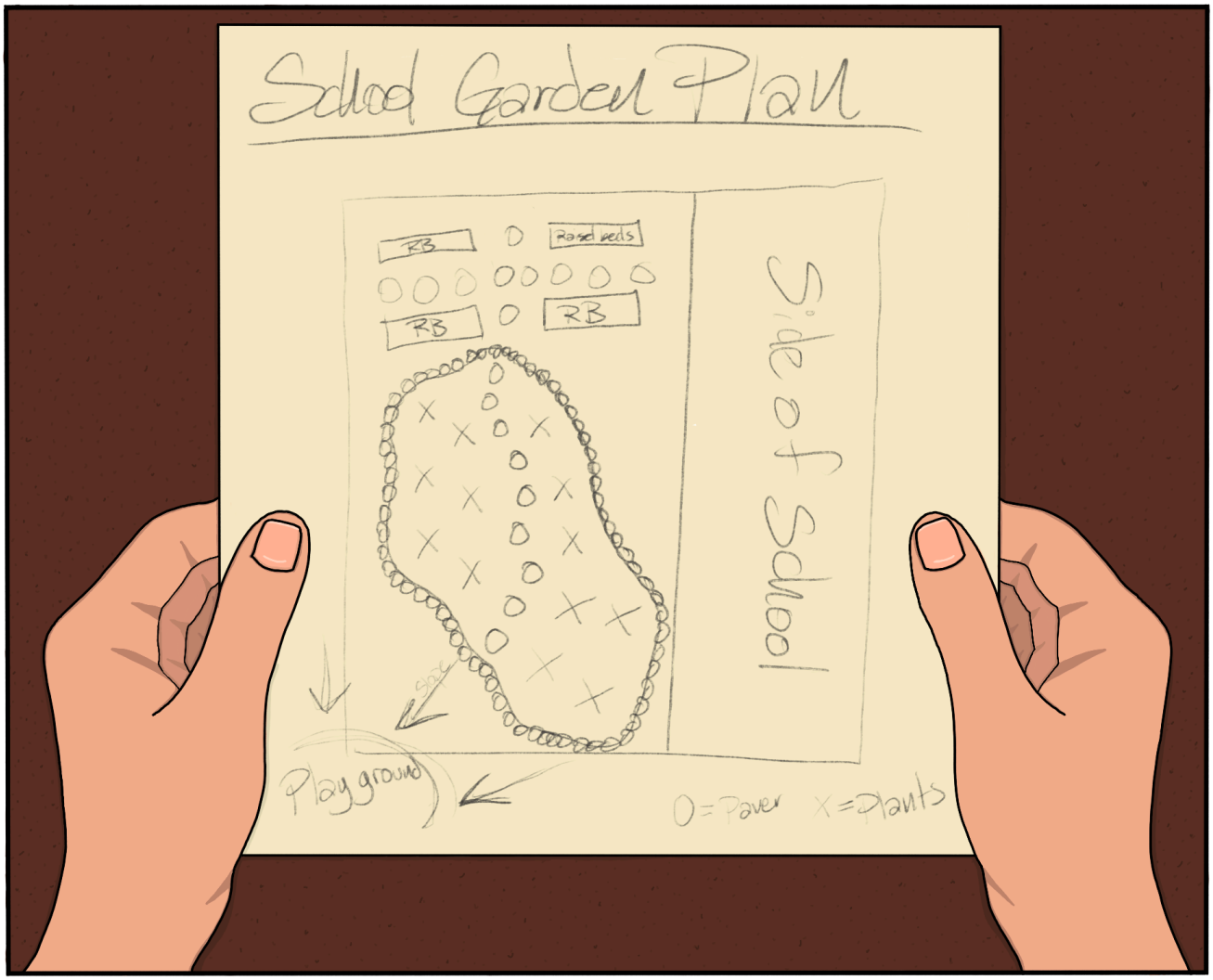
ALAN LOOKED CLOSELY AT THE SLOPE AND BEGAN DRAWING ON HIS CLIPBOARD.

"IF WE PLANT EVERYTHING STRAIGHT DOWN THE HILL, THE WATER COULD FLOW RIGHT BETWEEN THE ROWS AND CARRY SOIL WITH IT," ALAN EXPLAINED.

"SO, WHAT SHOULD WE DO?" PRIYA ASKED.

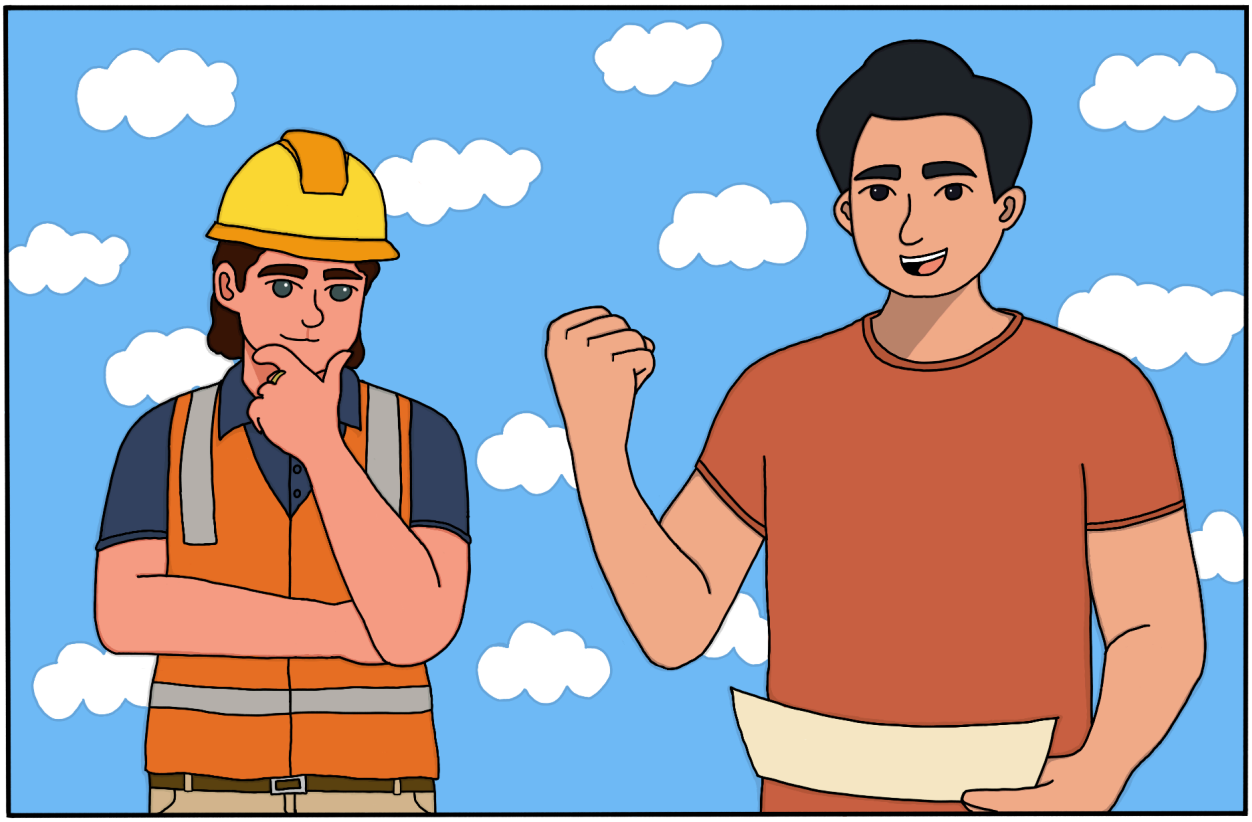
"WE CAN PLANT ACROSS THE SLOPE INSTEAD!" ALAN SAID. "THE ROWS OF PLANTS WILL ACT LIKE LITTLE BARRIERS. THEY CAN SLOW THE WATER DOWN AND HELP KEEP THE SOIL FROM WASHING AWAY."

LILY NODDED. "AND THE PLANTS' ROOTS WILL HELP HOLD THE SOIL IN PLACE, TOO!"



"ROWAN LOOKED OVER THE PLAN IN DEEP THOUGHT.

"SO, WE NEED PLANTS ACROSS THE SLOPE, STRONG ROOTS TO HOLD THE SOIL, AND PATHWAYS TO KEEP PEOPLE FROM WALKING THROUGH THE GARDEN. WE SHOULD ADD A ROCK BORDER TOO, THAT WAY THE SOIL STAYS IN PLACE BETTER, AND STUDENTS KNOW WHERE NOT TO WALK."



"EXACTLY!" SAID ALAN. "EVERYONE'S IDEAS FIT PERFECTLY TOGETHER!"

THE GROUP SMILES WITH AGREEMENT, AND WITH THE PLAN FINISHED, THE TEAM WAS READY TO START BUILDING THE GARDEN.



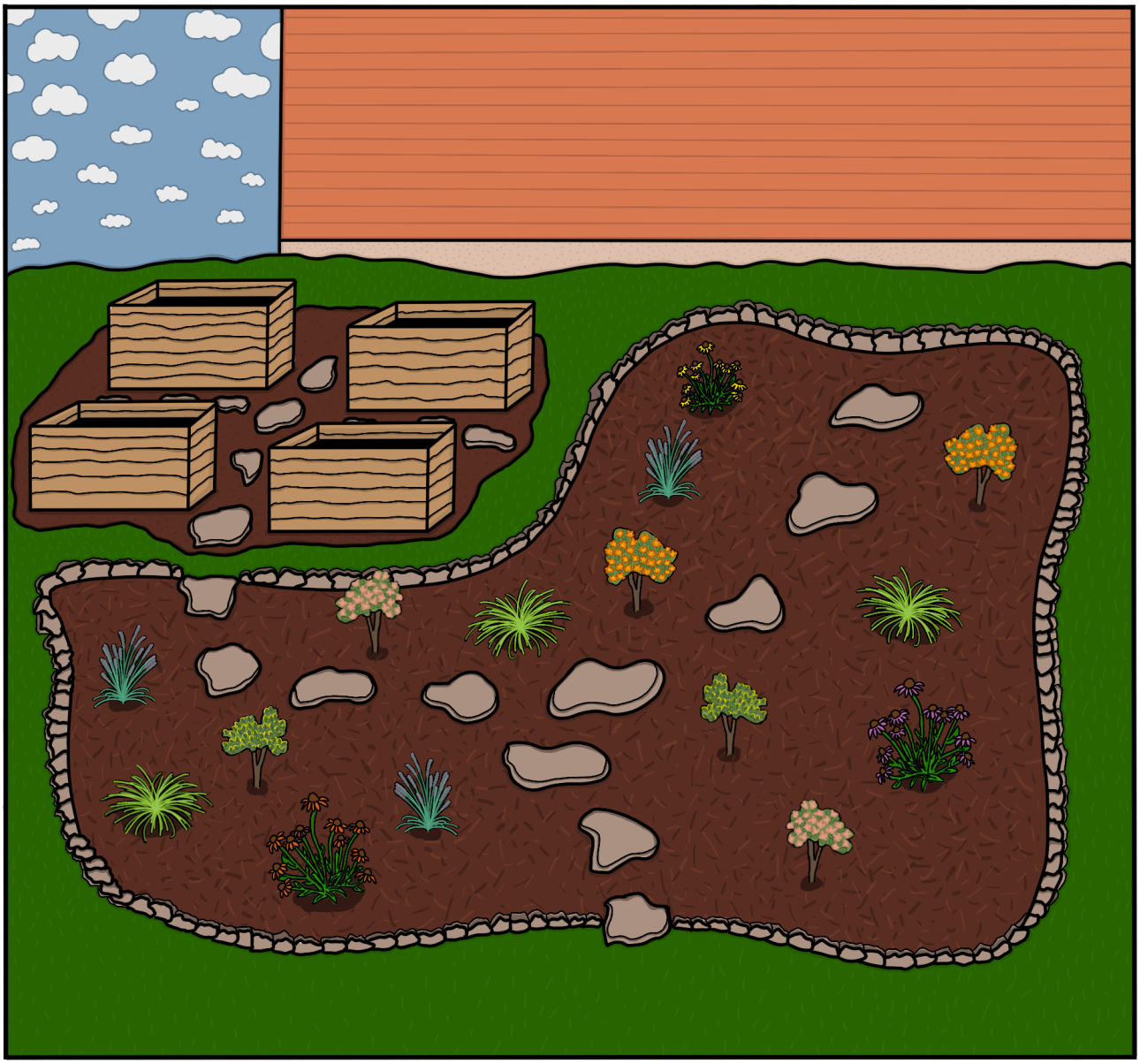
FIRST, LILY HELPED PREPARE THE SOIL BY ADDING SOME **COMPOST** SHE GOT FROM A LOCAL FARM. THEN THE TEAM HELPED PRIYA CARRY OVER THE **NATIVE PLANTS** SHE CHOSE.

FOLLOWING ALAN'S PLAN, THEY PLANTED THE ROWS OF PLANTS ACROSS THE SLOPE INSTEAD OF STRAIGHT DOWNHILL.

WHILE ALAN MARKED OUT THE NEW PATHWAYS, ROWAN BEGAN DECORATING AND PROTECTING THE GARDEN'S BORDER BY ADDING ROCKS.

IN NO TIME, THE MESSY, MUDDY PATCH BEGAN TO LOOK VERY DIFFERENT.

INSTEAD OF ONE BIG PATCH OF LOOSE SOIL, THERE WERE NOW ROWS OF PLANTS STRETCHING ACROSS THE SLOPE, THE SOIL PROTECTED AND HELD IN PLACE WITH NEW BEAUTIFUL PLANTS, AND FUN TWISTING AND TURNING PATHS FOR STUDENTS TO WALK ON, WHILE ENJOYING THE BEAUTIFUL NEW GARDEN.



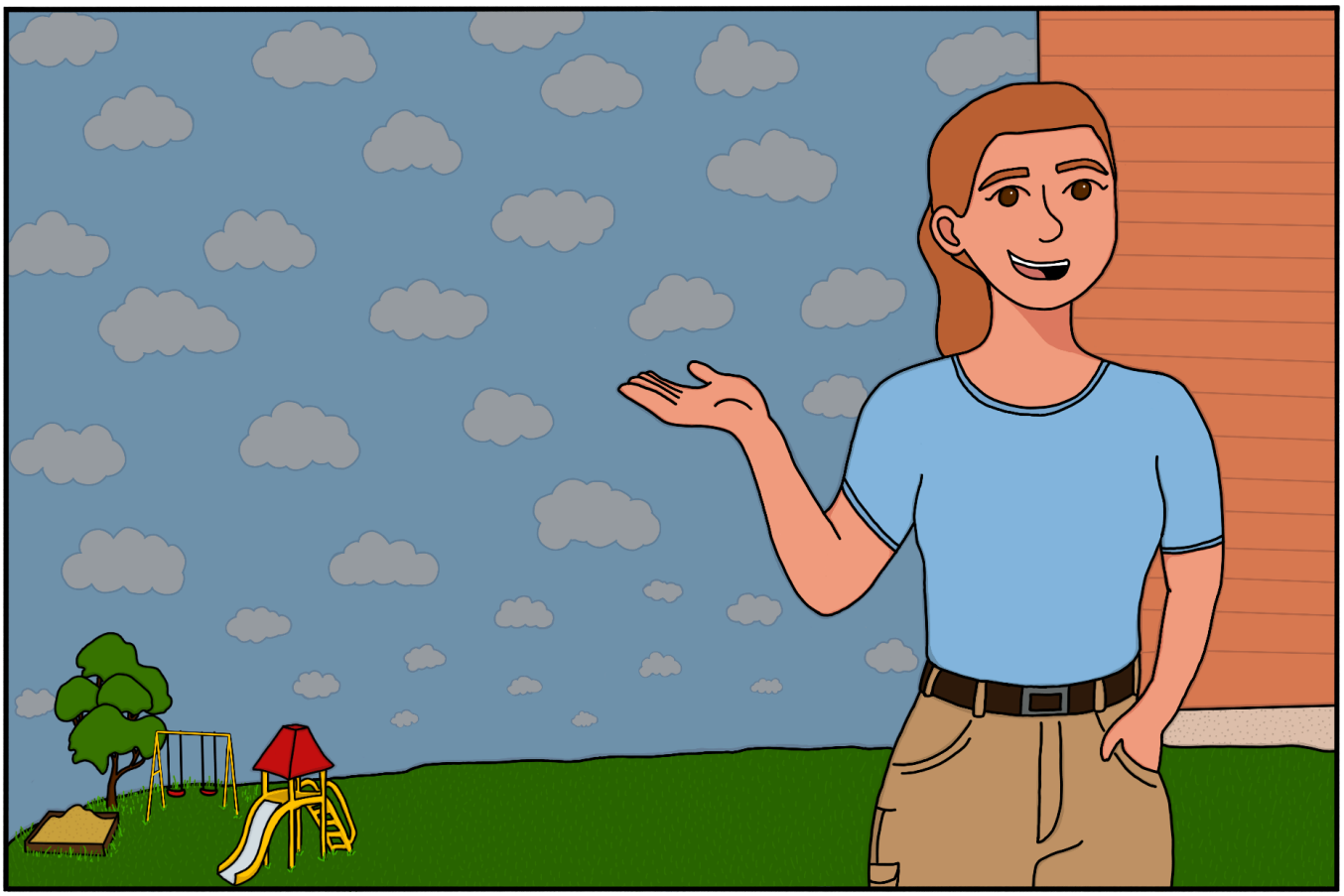
"WOW!" ROWAN EXCLAIMED. "THIS PLACE IS ALREADY LOOKING BETTER!"

"BUT WE AREN'T FINISHED YET," LILY SAID. EVERYONE LOOKED AT HER WITH EXHAUSTED CONFUSION.

"WE NEED TO SEE IF OUR PLAN ACTUALLY WORKS." JUST THEN, THUNDER RUMBLED IN THE DISTANCE AND DARK CLOUDS ROLLED ACROSS THE SKY.

"UH OH!" ALAN SAID.

PRIYA GRINNED, "LOOKS LIKE WE'RE ABOUT TO GET OUR TEST!"



MOMENTS LATER, LITTLE RAIN DROPS BEGAN SPLASHING ALL OVER THE GROUP. AS THE RAIN FELL HARDER, THE TEAM RAN TO THE EROSION PATROL TRUCK AND HUNKERED INSIDE TO WATCH THE GARDEN AND SEE IF THEIR HARD WORK AND PLANNING PAID OFF.



AS WATER LANDED ON THE GARDEN, INSTEAD OF CARRYING LARGE AMOUNTS OF SOIL DOWNHILL, THE PLANTS AND THEIR ROOTS HELPED HOLD THE SOIL IN PLACE, AND THE ROCK BORDER HELPED SLOW THE FLOW OF WATER, SO NO MUD REACHED THE PLAYGROUND.



WHEN THE RAIN FINALLY STOPPED, THE TEAM HOPPED OUT OF THE TRUCK AND HURRIED OVER TO BETTER INSPECT THEIR WORK.

THE PLAYGROUND WAS STILL WET, BUT IT WASN'T COVERED IN SQUISHY SLIPPERY MUD ANYMORE.

"WE DID IT!" EXCLAIMED ROWAN.

"WE SURE DID," SAID LILY. "PLANTS HELPED HOLD THE SOIL TOGETHER, AND OUR GARDEN DESIGN HELPED MANAGE THE WATER."

PRIYA SMILED. "THAT'S THE POWER OF WORKING TOGETHER!"

ALAN HELD UP HIS PLANS PROUDLY.

"SCIENTISTS, PLANT EXPERTS, AND DESIGNERS CAN ALL HAVE DIFFERENT JOBS, BUT WHEN WE WORK TOGETHER, WE CAN SOLVE BIG PROBLEMS AND DO SOME PRETTY COOL THINGS!"

AS THE SUN BEGAN TO SET, THE EROSION PATROL PACKED UP THEIR TOOLS AND CLIMBED BACK INTO THEIR TRUCK, SAYING FAREWELL TO THEIR NEW FRIENDS.

ANOTHER MUDDY MYSTERY SOLVED!
BUT AS THEY DROVE AWAY, LILY SMILED.

"I WONDER WHAT WE'LL INVESTIGATE NEXT..."



THE END

BE AN EROSION PATROL SCOUT!

HOW CAN YOU HELP?

YOU CAN HELP PROTECT THE EARTH BY:

- **STICKING TO THE TRAIL:** ALWAYS STAY ON DESIGNATED PATHS. WALKING OFF-TRAIL CRUSHES PLANTS AND LOOSENS THE SOIL.
- **LEAVE NATURE'S SHIELD:** KEEP PLANTS, GRASS, AND ROCKS WHERE THEY ARE. THEY ACT LIKE A BLANKET THAT PROTECTS THE SOIL UNDERNEATH.
- **PLANT FOR THE FUTURE:** HELP PUT NATIVE PLANTS IN THE GROUND. THEIR DEEP ROOTS WORK LIKE FINGERS TO HOLD SOIL IN PLACE!

REPORTING FOR DUTY:

KEEP YOUR EYES OPEN FOR LOOSE MUD OR WASHED-AWAY SOIL! IF YOU SEE SEVERE EROSION NEAR A CONSTRUCTION SITE, ASK AN ADULT TO REPORT IT IMMEDIATELY TO THE NORTH CAROLINA EROSION PATROL HOTLINE AT: **1-866-STOP-MUD**

