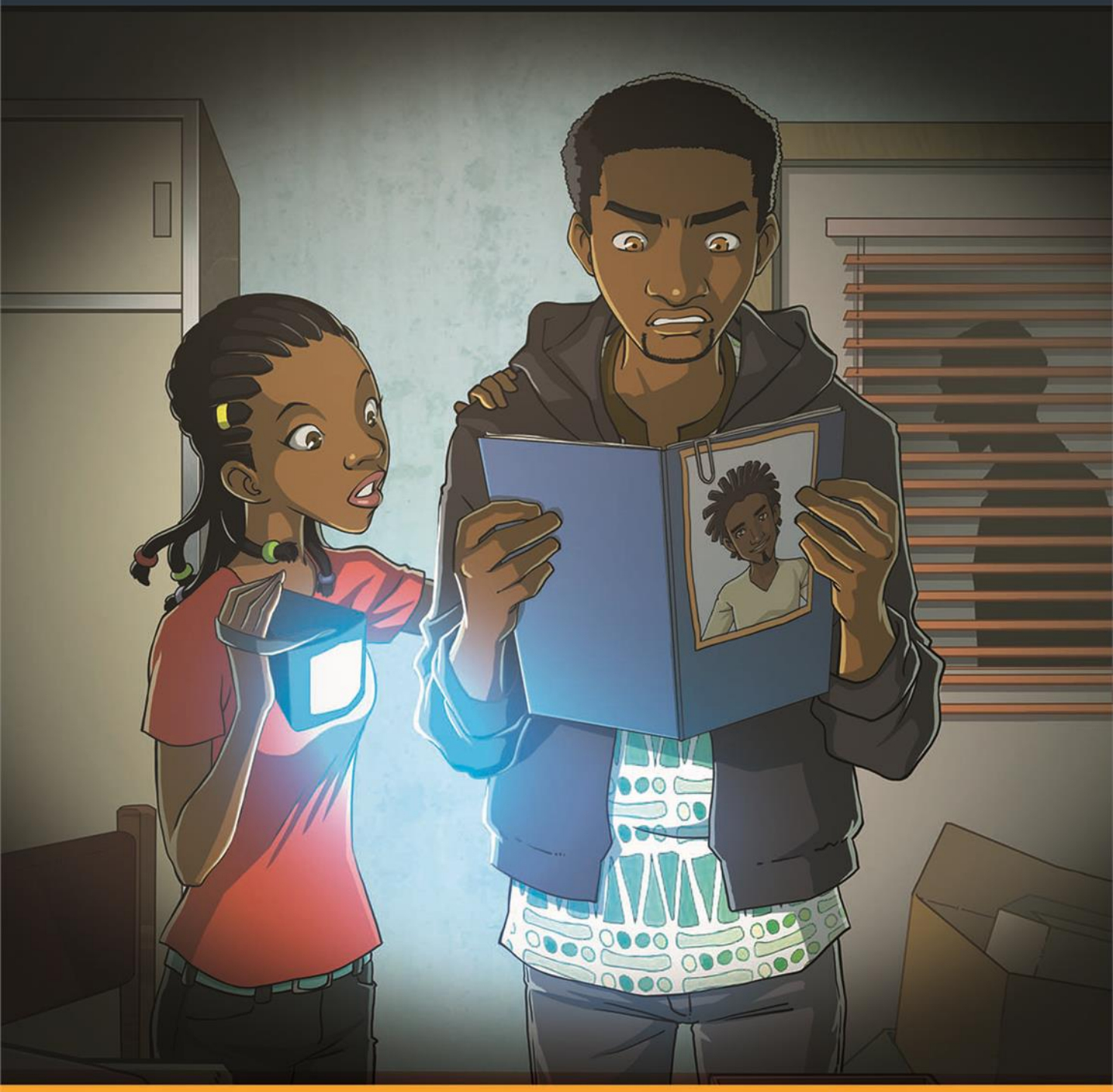
SPOTLIGHT

ISSUE #1

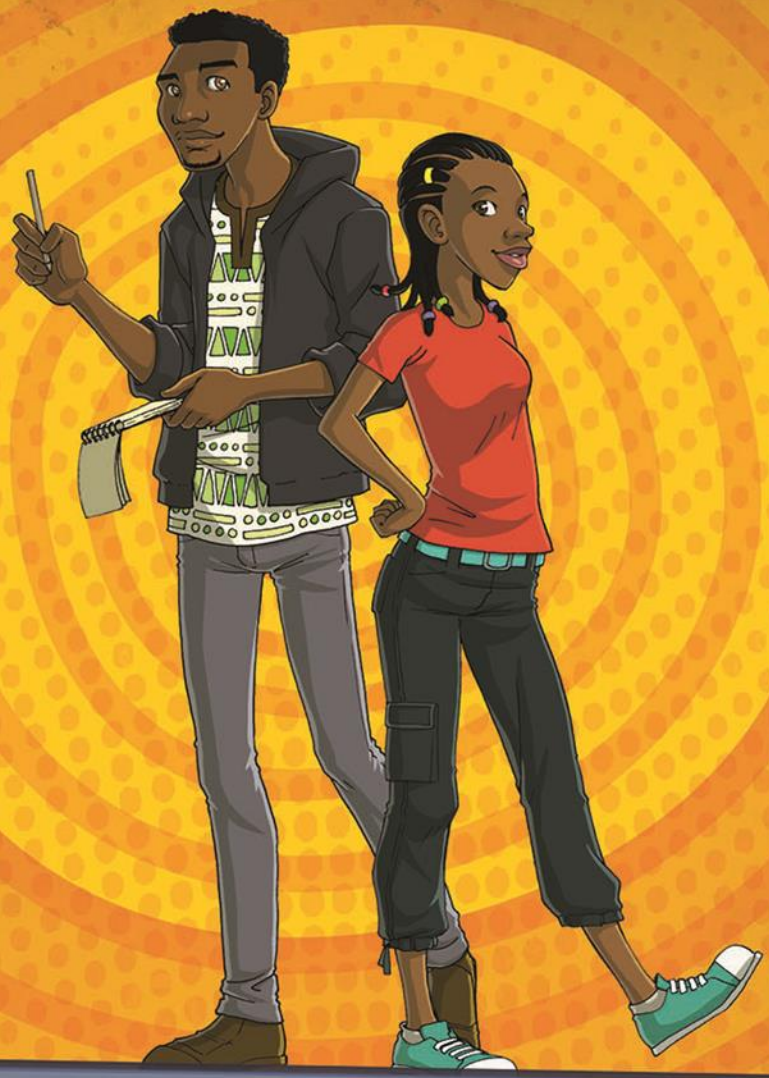
THE CASE OF THE CROOKED AGENT



LIGHTING AFRICA

AN INNOVATION OF WORLD BANK GROUP

THE WORLD BANK IFC



MEET THE TEAM

ACE

Ace is a reporter with a strong sense of duty and integrity who likes to delve deeply into all sorts of stories, occasionally the kind that people try to keep hidden. His methods are quite old-school, which means he's sometimes left in the dark when it comes to technology that could help him. Luckily, Malaika is always there to help him shine a light on the truth.

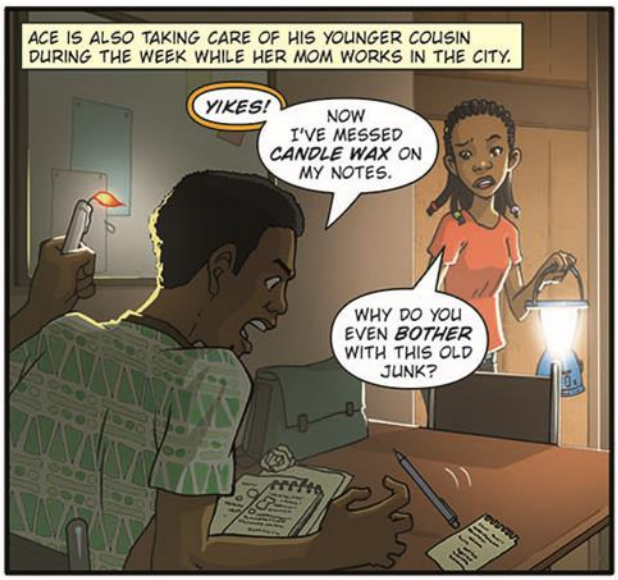
MALAIKA

This clued up young woman is Ace's young cousin. She stays with him during the week, while her mother works in the city. She uses portable solar power to charge her cell phone, which she uses to snap pictures, record conversations and quickly type up notes on the go. She always gets the evidence Ace needs.

Together they uncover intriguing stories and solve many mysteries from superstitious curses to local theft syndicates. All the while they spread the knowledge and joy that comes with the ease of using solar power when you're off the grid.


ACE IS A LEADING INVESTIGATIVE REPORTER...

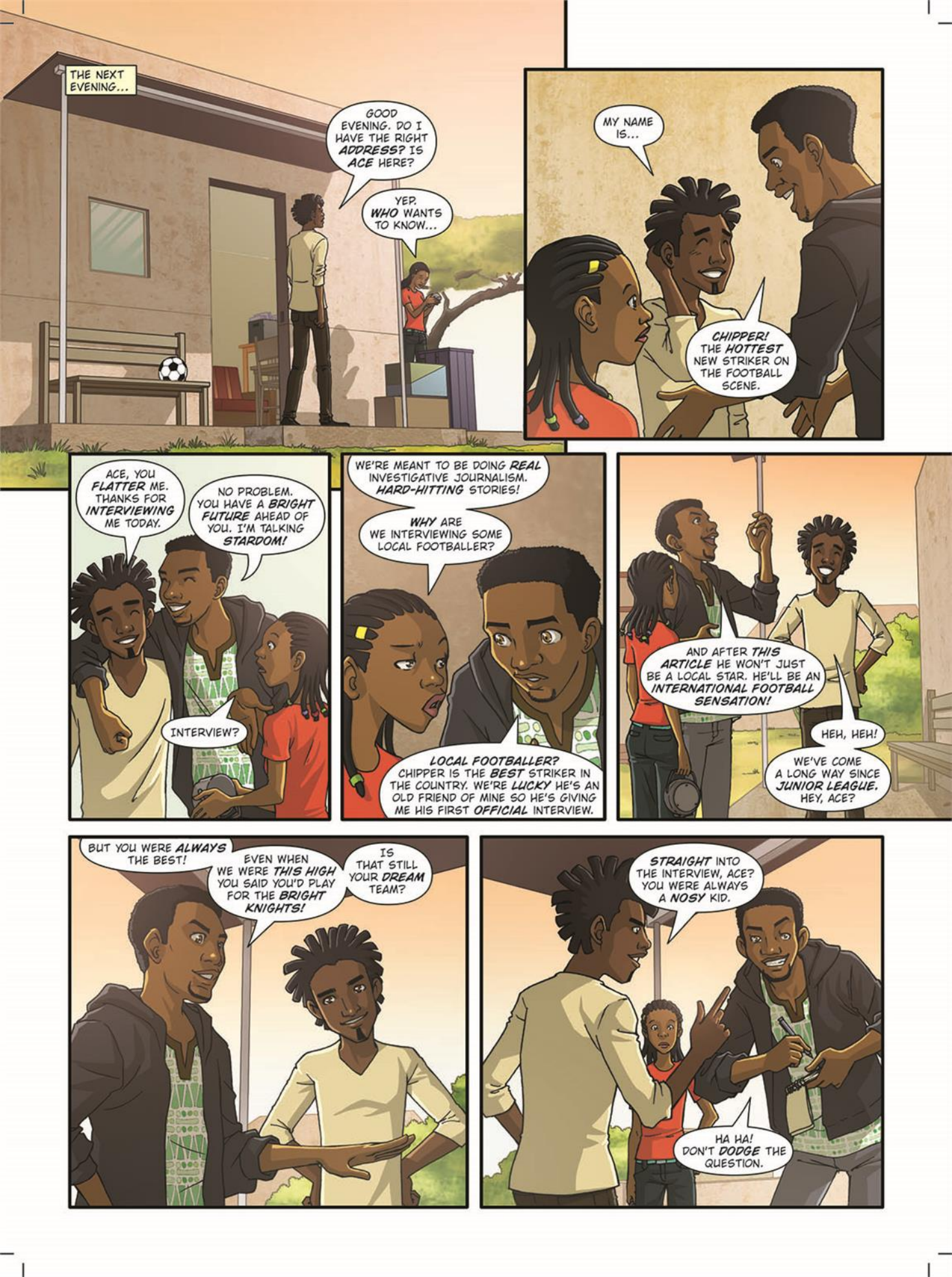

...BUT HIS METHODS ARE A BIT OLD SCHOOL.
HMM... I CAN BARELY READ THIS PARAGRAPH.
SCRIB SCRIBBLE


ACE IS ALSO TAKING CARE OF HIS YOUNGER COUSIN DURING THE WEEK WHILE HER MOM WORKS IN THE CITY.
YIKES!
NOW I'VE MESSED CANDLE WAX ON MY NOTES.
WHY DO YOU EVEN BOTHER WITH THIS OLD JUNK?


JUNK? I'LL HAVE YOU KNOW MY TRUSTY NOTEPAD AND CANDLE HAVE ALWAYS BEEN RELIABLE.
WAP WAP WAP

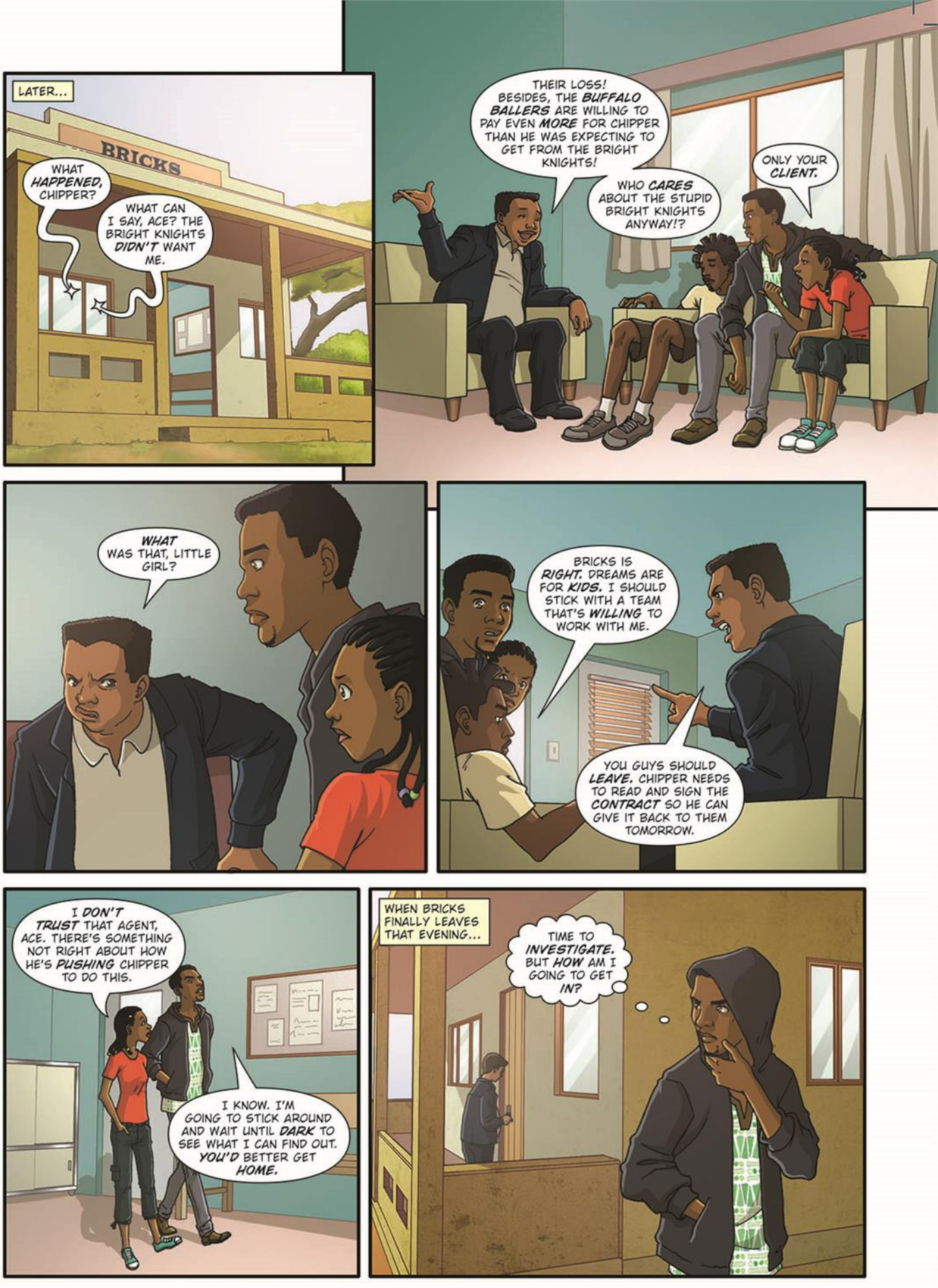

OOPS.

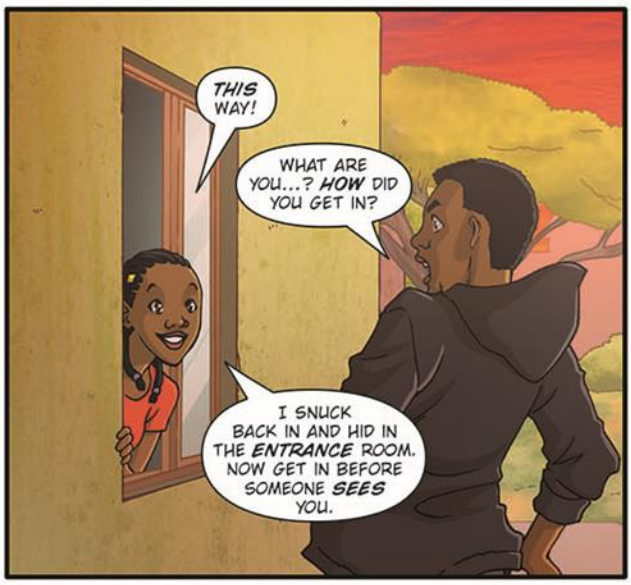

JUST USE MY PORTABLE SOLAR LANTERN. I CHARGED IT ALL DAY SO IT'LL LAST LONGER AND YOU WON'T HAVE TO STRAIN YOUR EYES TO SEE. I'M GOING TO BED. GOOD NIGHT.
THANKS! SLEEP TIGHT.
SOLAR TIP
LEAVE YOUR SOLAR PANEL IN DIRECT SUNLIGHT DURING THE DAY TO FULLY CHARGE THE BATTERY FOR USE AT NIGHT.


THE NEXT EVENING...
GOOD EVENING. DO I HAVE THE RIGHT ADDRESS? IS ACE HERE?
YEP. WHO WANTS TO KNOW...
MY NAME IS...
CHIPPER! THE HOTTEST NEW STRIKER ON THE FOOTBALL SCENE.
ACE, YOU FLATTER ME. THANKS FOR INTERVIEWING ME TODAY.
NO PROBLEM. YOU HAVE A BRIGHT FUTURE AHEAD OF YOU. I'M TALKING STARDOM!
INTERVIEW?
WE'RE MEANT TO BE DOING REAL INVESTIGATIVE JOURNALISM. HARD-HITTING STORIES!
WHY ARE WE INTERVIEWING SOME LOCAL FOOTBALLER?
LOCAL FOOTBALLER? CHIPPER IS THE BEST STRIKER IN THE COUNTRY. WE'RE LUCKY HE'S AN OLD FRIEND OF MINE SO HE'S GIVING ME HIS FIRST OFFICIAL INTERVIEW.
AND AFTER THIS ARTICLE HE WON'T JUST BE A LOCAL STAR. HE'LL BE AN INTERNATIONAL FOOTBALL SENSATION!
HEH, HEH!
WE'VE COME A LONG WAY SINCE JUNIOR LEAGUE. HEY, ACE?
BUT YOU WERE ALWAYS THE BEST!
EVEN WHEN WE WERE THIS HIGH YOU SAID YOU'D PLAY FOR THE BRIGHT KNIGHTS!
IS THAT STILL YOUR DREAM TEAM?
STRAIGHT INTO THE INTERVIEW, ACE? YOU WERE ALWAYS A NOSY KID.
HA HA! DON'T DODGE THE QUESTION.

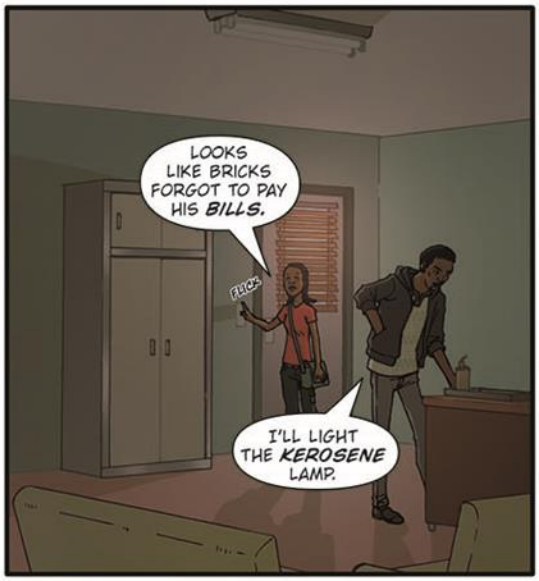

YES, I WOULD REALLY LIKE TO PLAY FOR THE BRIGHT KNIGHTS, IF THEY WOULD HAVE ME. MY AGENT IS IN TALKS WITH THEM.
WAIT! LET'S REWIND A BIT. MY "WORD-NERD" COUSIN WAS ONCE SPORTY?
ACE WAS QUITE GOOD. YOU SHOULD SHOW HER SOME OF YOUR MOVES.
YES, YOU SHOULD! HERE YOU GO.
NOW? I WOULD BUT...
...IT'S GETTING TOO DARK TO SEE THE BALL.
HEY! WHAT'S THAT?
MY PORTABLE SOLAR LANTERN. NOW WE DON'T HAVE TO WORRY ABOUT THE DARK.
CLICK
SOLAR TIP
WITH PORTABLE SOLAR ENERGY YOU CAN DO ALL THE THINGS AT NIGHT YOU WOULD NORMALLY DO DURING THE DAY, LIKE WORK AND STUDY!
ACTUALLY, WE SHOULD PROBABLY GET ON WITH OUR INTERVIEW. MY DEADLINE IS TOMORROW MORNING.
HEH, HEH! SURE THING, ACE.

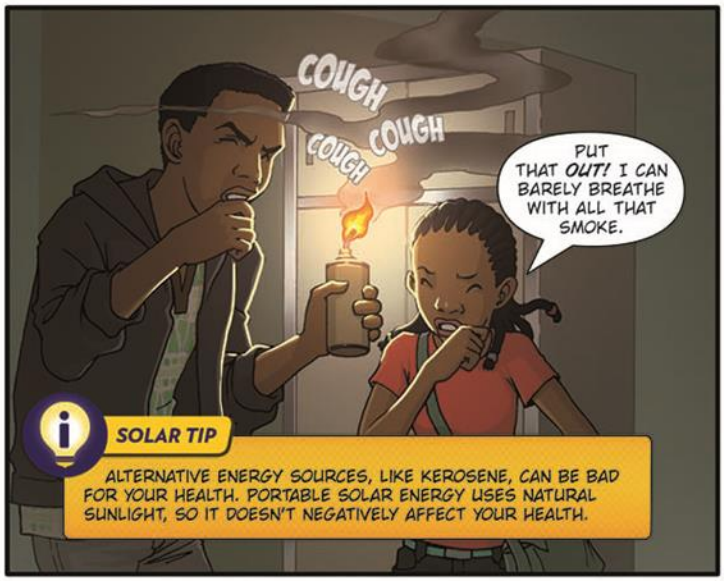

THE NEXT MORNING, WHEN ACE HANDS HIS ARTICLE TO HIS CHIEF EDITOR...
HA HA HA HA HA
WHAT'S SO FUNNY, CHIEF?
THIS! YOU CALL THIS NEWS?!
I GOT A REAL PRESS RELEASE EARLIER. CHIPPER IS ABOUT TO BE SIGNED WITH THE BUFFALO BALLERS, NOT THE BRIGHT KNIGHTS.
WHAT?
THAT PRESS RELEASE CAN'T BE REAL!
THIS PRESS RELEASE WAS GIVEN TO ME BY CHIPPER'S AGENT, BRICKS.
I DOUBT YOU EVEN GOT YOUR INFORMATION FROM A RELIABLE SOURCE.
NOW DON'T COME BACK UNTIL YOU HAVE SOME REAL NEWS!
IT DOESN'T MAKE SENSE. WHY DIDN'T CHIPPER TELL US THIS LAST NIGHT?
WE'LL HAVE TO ASK HIM OURSELVES. HE'LL BE AT HIS AGENT'S NOW.

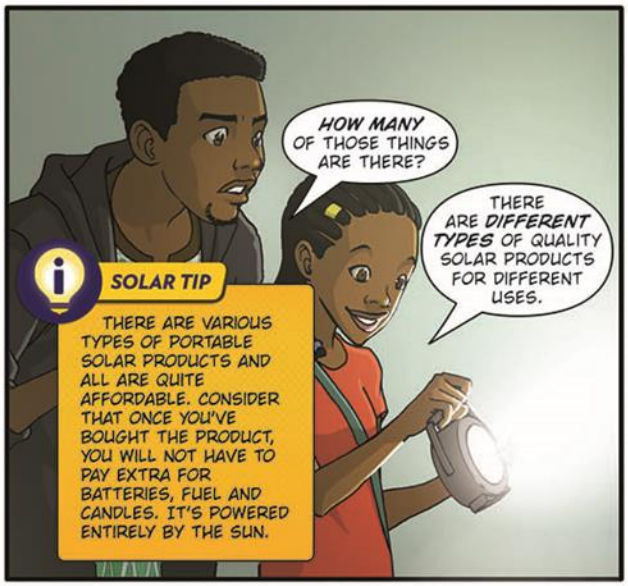

LATER...
BRICKS
WHAT HAPPENED, CHIPPER?
WHAT CAN I SAY, ACE? THE BRIGHT KNIGHTS DIDN'T WANT ME.
THEIR LOSS! BESIDES, THE BUFFALO BALLERS ARE WILLING TO PAY EVEN MORE FOR CHIPPER THAN HE WAS EXPECTING TO GET FROM THE BRIGHT KNIGHTS!
WHO CARES ABOUT THE STUPID BRIGHT KNIGHTS ANYWAY!?
ONLY YOUR CLIENT.
WHAT WAS THAT, LITTLE GIRL?
BRICKS IS RIGHT. DREAMS ARE FOR KIDS. I SHOULD STICK WITH A TEAM THAT'S WILLING TO WORK WITH ME.
YOU GUYS SHOULD LEAVE. CHIPPER NEEDS TO READ AND SIGN THE CONTRACT SO HE CAN GIVE IT BACK TO THEM TOMORROW.
I DON'T TRUST THAT AGENT, ACE. THERE'S SOMETHING NOT RIGHT ABOUT HOW HE'S PUSHING CHIPPER TO DO THIS.
I KNOW. I'M GOING TO STICK AROUND AND WAIT UNTIL DARK TO SEE WHAT I CAN FIND OUT. YOU'D BETTER GET HOME.
WHEN BRICKS FINALLY LEAVES THAT EVENING...
TIME TO INVESTIGATE. BUT HOW AM I GOING TO GET IN?


THIS WAY!
WHAT ARE YOU...? HOW DID YOU GET IN?
I SNUCK BACK IN AND HID IN THE ENTRANCE ROOM. NOW GET IN BEFORE SOMEONE SEES YOU.


WHAT WOULD YOUR MOTHER SAY?
SHE WOULD SAY I SHOULD STAY WITH MY BRAVE COUSIN, ACE, RATHER THAN STAY ALONE AT HOME AT NIGHT.
POINT TAKEN. I GUESS YOU FINALLY GET TO DO SOME INVESTIGATING ON THIS STORY AFTER ALL.

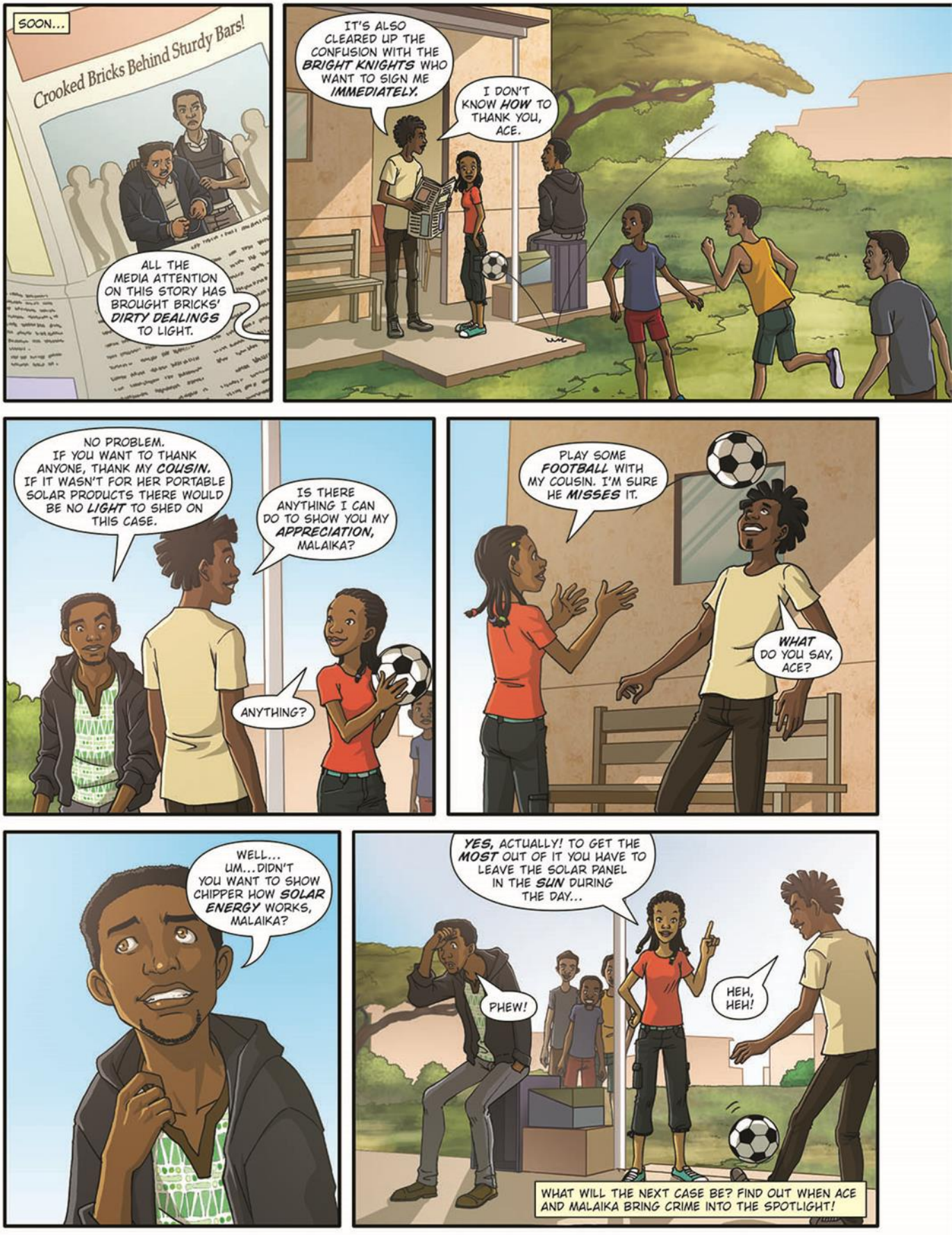

LOOKS LIKE BRICKS FORGOT TO PAY HIS BILLS.
FLICK
I'LL LIGHT THE KEROSENE LAMP.


COUGH
COUGH
COUGH
PUT THAT OUT! I CAN BARELY BREATHE WITH ALL THAT SMOKE.
SOLAR TIP
ALTERNATIVE ENERGY SOURCES, LIKE KEROSENE, CAN BE BAD FOR YOUR HEALTH. PORTABLE SOLAR ENERGY USES NATURAL SUNLIGHT, SO IT DOESN'T NEGATIVELY AFFECT YOUR HEALTH.


HOW MANY OF THOSE THINGS ARE THERE?
THERE ARE DIFFERENT TYPES OF QUALITY SOLAR PRODUCTS FOR DIFFERENT USES.
SOLAR TIP
THERE ARE VARIOUS TYPES OF PORTABLE SOLAR PRODUCTS AND ALL ARE QUITE AFFORDABLE. CONSIDER THAT ONCE YOU'VE BOUGHT THE PRODUCT, YOU WILL NOT HAVE TO PAY EXTRA FOR BATTERIES, FUEL AND CANDLES. IT'S POWERED ENTIRELY BY THE SUN.


HEY, ACE! HERE'S CHIPPER'S CONTRACT! HE HASN'T SIGNED IT YET.
Contract
GUESS HE'S WAITING TILL THE LAST MINUTE. LET'S SEE IF WE CAN HELP HIM.


BILLS, BILLS, BILLS! NO WONDER THE ELECTRICITY IS OFF. BRICKS MUST NOT HAVE PAID THE BILL.
AND HERE'S WHY!
BRICKS OWES A LOAN SHARK A LOT OF MONEY. THIS DOCUMENT SAYS HE'S OVERDUE.
THERE'S SOMETHING ELSE IN THIS DRAWER, ACE.
IT'S A CONTRACT FROM THE BRIGHT KNIGHTS! AND IT'S FOR CHIPPER! LOOKS LIKE BRICKS KEPT IT FROM HIM BECAUSE THEY DIDN'T OFFER AS MUCH AS THE BUFFALO BALLERS.
Bright Knights Contract for Chippe
CHIPPER'S AGENT HAS BEEN KEEPING MANY SECRETS FROM HIM. WE NEED PROOF. I'LL TAKE A PICTURE OF ALL THESE DOCUMENTS WITH MY PHONE'S CAMERA.
SMACK
OH NO! I DIDN'T GET A CHANCE TO CHARGE MY PHONE. THE BATTERY'S DEAD.
LEAVE THAT TO ME AND MY PORTABLE SOLAR POWER.
ARE YOU KIDDING ME?
NOPE! SOME PORTABLE SOLAR DEVICES CAN BE USED TO CHARGE SMALL APPLIANCES LIKE CAMERAS AND PHONES.
SO, DO YOU STILL THINK YOUR OLD SCHOOL METHODS ARE BETTER?
PING
KA-CHICK
I MAY BE OLD SCHOOL, BUT I'M NOT TOO OLD TO LEARN NEW TRICKS!


SOON...
Crooked Bricks Behind Sturdy Bars!
ALL THE MEDIA ATTENTION ON THIS STORY HAS BROUGHT BRICKS' DIRTY DEALINGS TO LIGHT.
IT'S ALSO CLEARED UP THE CONFUSION WITH THE BRIGHT KNIGHTS WHO WANT TO SIGN ME IMMEDIATELY.
I DON'T KNOW HOW TO THANK YOU, ACE.
NO PROBLEM. IF YOU WANT TO THANK ANYONE, THANK MY COUSIN. IF IT WASN'T FOR HER PORTABLE SOLAR PRODUCTS THERE WOULD BE NO LIGHT TO SHED ON THIS CASE.
IS THERE ANYTHING I CAN DO TO SHOW YOU MY APPRECIATION, MALAIKA?
ANYTHING?
PLAY SOME FOOTBALL WITH MY COUSIN. I'M SURE HE MISSES IT.
WHAT DO YOU SAY, ACE?
WELL... UM... DIDN'T YOU WANT TO SHOW CHIPPER HOW SOLAR ENERGY WORKS, MALAIKA?
YES, ACTUALLY! TO GET THE MOST OUT OF IT YOU HAVE TO LEAVE THE SOLAR PANEL IN THE SUN DURING THE DAY...
PHEW!
HEH, HEH!
WHAT WILL THE NEXT CASE BE? FIND OUT WHEN ACE AND MALAIKA BRING CRIME INTO THE SPOTLIGHT!

DID YOU KNOW?

How can solar powered products provide electricity at night, when there isn't any sunshine? The secret is the batteries. Batteries can store the electricity made during the day so you can use it whenever you want. Here are some other solar facts that are interesting to know:

1. It takes less than 9 minutes for sunlight to travel the 150 million kilometres between the sun and the earth.

2. In one hour, the sun provides Earth with more energy than the entire world uses in a year. In 20 days the sun could provide as much power as all of the world's fossil fuels combined.

3. Food can be cooked or dried and water can be disinfected using solar energy. In fact, when you hang your washing in the sun, you are using solar energy to dry your clothes.

4. Using solar powered products causes no pollution or harmful environmental effects.

5. Solar electricity is used all around the world in many different ways. There are small cells that charge things like phones and lights, and big solar power stations connected to the electric grid – the biggest one in California supplies 160,000 homes with electricity!

6. Plants are the oldest solar energy users in the world. They turn sunlight into chemical energy, which they use to grow.

Source:http://www.conserve-energy-future.com/various-solar-energy-facts.php

LIGHTING AFRICA
Catalyzing markets for modern off-grid energy

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www.lightingafrica.org/products

BENDING LIGHT (REFRACTION)

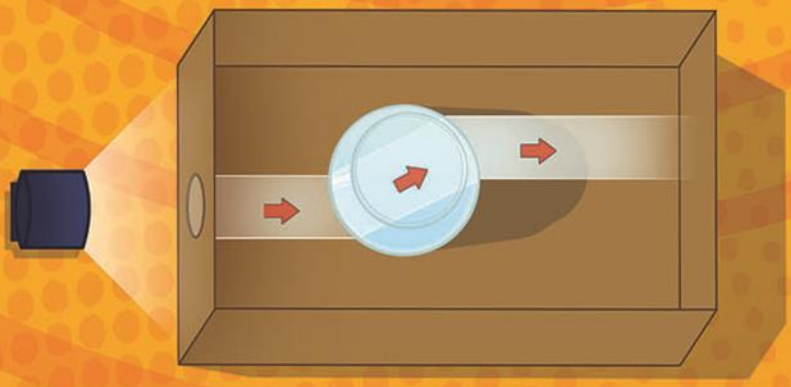
YOU WILL NEED:

JAR OF WATER | SCISSORS | SOLAR LAMP | CARDBOARD BOX | DARK ROOM

INSTRUCTIONS

Do this experiment in a dark room to achieve better results.

1. Cut a hole about the size of a large coin at one end of the cardboard box using sharp scissors.
2. Fill the jar with water.
3. Place the jar of water in the cardboard box. Position the jar at an angle near the hole.
4. Place the solar lamp up against the slit so that the beam of light goes straight through to the jar of water.



WHAT HAPPENS?

Light moves slower through water than it moves through air. When the light goes through the water, it slows down and bends. As the light re-enters the air, the beam of light speeds up again and bends back. This is called **refraction.**

DID YOU KNOW?

Refraction surrounds us in our everyday life, but is not restricted to pretty rainbows or desert mirages. Without the laws of refraction there would be no microscopes, telescopes, fibre optic cables or even cameras!

COMPREHENSION CROSSWORD

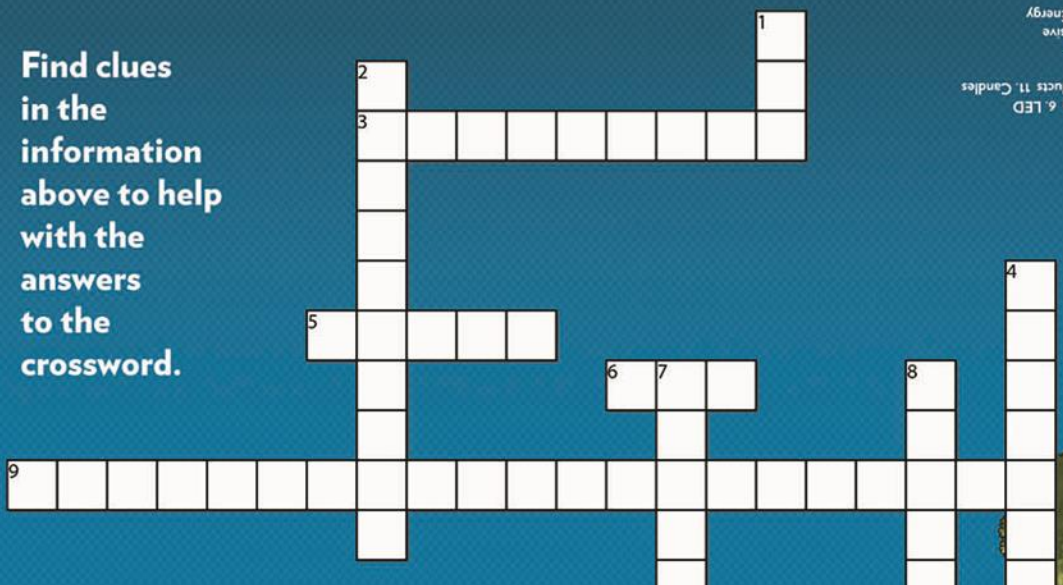
During the day we use light for business, for education, even for socialising. When the sun sets many people use candles, poor quality battery-operated torches and kerosene lamps – inefficient, expensive and sometimes unhealthy ways to create light.

What if you could take some sun with you at night? You can with portable solar products.

There are different types, but each portable solar product is made up of three basic parts: a small solar panel, a modern rechargeable battery, and LED bulbs for light.

The solar panel catches the light from the sun and stores this energy in the battery. This can now be used for much-needed light when it's dark. Many can even charge cellphones.

Find clues in the information above to help with the answers to the crossword.

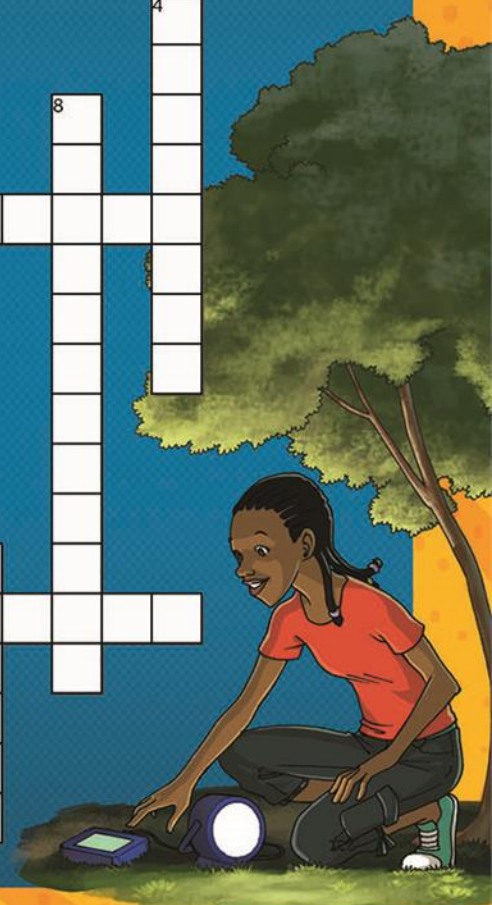


ACROSS

3. An activity that, like business and socialising, requires light. (9)
5. How many basic parts do portable solar products contain? (5)
6. What kind of bulbs do portable solar products use? (3)
9. What can you use to take some sun with you at night? (8,5,8)
11. A source of light some people use when the sun sets. (7)

DOWN

1. Where does all the natural light in the world come from? (3)
2. Find the missing word: Some portable solar products can also charge .... (10)
4. What kind of lamps do people use instead of solar light? (8)
7. Find the missing word: Poor quality battery-operated torches are often .... (9)
8. What kind of batteries do portable solar products contain? (12)
10. What do solar panels catch and store in the battery? (6)



ANSWERS

Across:
3. Education 5. Three 6. LED
9. Portable Solar Products 11. Candles

Down:
1. Sun 2. Cellphones
4. Kerosene 7. Expensive
8. Rechargeable 10. Energy

HOW TO BUILD YOUR OWN SOLAR POWERED OVEN

YOU WILL NEED:

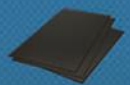

CARDBOARD BOX WITH LID


BOX KNIFE OR SCISSORS


ALUMINIUM FOIL


CLEAR TAPE


PLASTIC WRAP


BLACK CONSTRUCTION PAPER


NEWSPAPERS


RULER, OR WOODEN SPOON

INSTRUCTIONS:

1. Use sharp scissors to cut a flap in the top of a cardboard box. Cut along three sides, leaving about 2cm between the sides of the flap and the edges of the box.
2. Fold this flap out so it stands up and close the box lid.
3. Cover the underside of the flap with aluminium foil to reflect rays from the sun.
4. Take a plastic bag or double layer of plastic wrap and tape it to the opening on the underside of the box lid to create an airtight window for the sunlight to enter through. Make sure there is enough plastic overlapping to tape each side down securely. This will ensure the hot air stays inside.
5. Line the bottom of the box with black construction paper – black absorbs heat. The black surface is where you put your food to cook.
6. Take sheets of newspaper and tape them to the inside edges surrounding the cooking area. This insulates your oven so the newspaper should create a seal inside the box without preventing the lid from closing.
7. The best time to set up your solar oven is when the sun is high overhead from 11am – 3pm. Place it in sunny spot outside and adjust the flap until the maximum sunlight is reflecting off the aluminium foil onto the plastic-covered window.
8. You can make toast, cook a hot dog or even heat up leftovers.
9. Put your food on a clear plastic or glass plate so the paper at the bottom doesn't get dirty.
10. Always use oven mitts or potholders to lift the dish when taking food out of the oven.

MORE REASONS WHY YOU SHOULD CHOOSE PORTABLE SOLAR POWER

- Portable solar products let you study at night for an improved education.
- Solar energy gives you the power to choose your own working hours.
- Many solar products can charge cell phones.
- There's no need to buy fuel or batteries as the light charges off the sun, which is free.
- Portable solar products are safer than other lighting solutions because they do not negatively affect your health.

TIPS FOR USING YOUR PORTABLE SOLAR PRODUCT

- To make the most out of your portable solar product, you need to leave the solar panel in direct sunlight, storing the battery and light safely.
- Move your solar panel out of shady areas to ensure it gets the maximum charge.
- If the solar panel is dirty, wipe it clean with a soft cloth, to ensure it absorbs more energy.

For a list of quality-verified solar lighting products visit the Lighting Africa website: **www.lightingafrica.org/products**

FIND OUT MORE!

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