



GETTY IMAGES/ISTOCKPHOTO; BSA FILE PHOTO/TOM COPELAND; W. GARTH DOWLING; BSA FILE PHOTO

THIS PAGE: KHAMPA BOUAPHANH; JOEY ELLIS; SCOTT NICKEL (2); JAMESON SIMPSON; ADAM NICKEL;

(13);

NICKEL

(2); SCOT

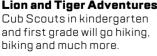
JOEY ELLIS; STEPHEN GILPIN; KELLY KENNEDY

ON THE COVER: MIKE ADAIR (6); .



ALL ABOUT CUB SCOUTS /ou've joined Cub Scouts! Here's what's going to happen next....







As you get older, you'll move up in rank and go on more adventures.

Prepared for Scout fun now

The Science of the **Pinewood Derby** A former NASA engineer explains how you can use science to succeed at your next Pinewood Derby.

Let's Look At THE **PINEWOOD DERBY** Check out this special Cub Scout section from

Scout Life

32 SL HOW TO MAKE IT:

Duct-Tape Wallet



DEPARTMENTS HEADS UP 2 34 Think & Grin COMICS Lion Pride 20 21 Tigers' Adventures 22 Wolf Gang 22 THE BEAR BUNCH



- 23 WE'll BE LOyal Scouts
- 23 ArrowHeads
- 24 Mazes & More
- 28 DINK, DUFF & DEZI



- 29 Scouts in Action 30 More Scouts in Action
- 31 Pee Wee Harris

SCOUT LIFE is a registered trademark of the Boy Scouts of America. All rights thereunder reserved; anything appearing in SCOUT LIFE may not be reprinted either wholly or in part without permission.

and later.

Hi there!

Welcome to the wonderful world of Cub Scouting. My name is Scout, and I'm a Maileagle. What's a Maileagle? Why, I'm an eagle that hauls the mail, of course!

I'm here to tell you about being a Cub Scout. We're going to have all kinds of fun!

This magazine is a tiny version of

the magazine I work for, Scout Life. You can get Scout Life mailed to you 10 times a year. It will show you all the cool stuff you can do in Scouting. It's a great way to spend some of your time outside of school, and you'll have a blast. Ask your parents to subscribe to *Scout Life* today by going to scoutlife.org/subscribe-now/minimag. Use promo code **minimag** for a special introductory price.



Sign up for Cub Scouting, and you'll have fun playing with your friends and making new ones. (Your parents will have fun, too, playing right along with you. Share this with them.)

So come on in and join Cub Scouts.

Our next meeting is right around the corner!



(See those footprints? That's my official autograph!)



Find a location near you at **BeAScout.ora!**

Parents: Learn more about Cub Scouting at go.scoutlife.org/cubscouts



Download the Scout Life magazine app on your device and start reading today!

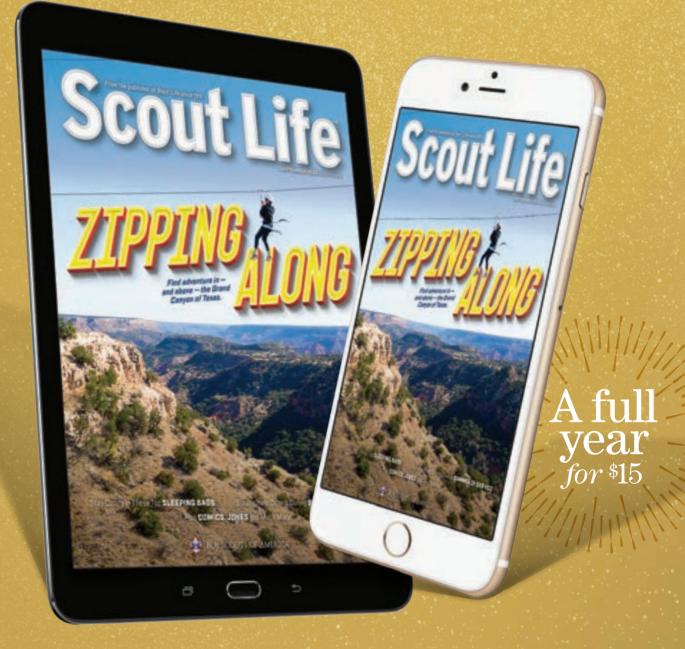
CUB SCOUTS Do Fun Things!

They get to wear a cool uniform and go places and see things with their families. They play all kinds of games and build things like race cars and birdhouses. Want to learn a secret code? Want to learn about wild animals? **GO CUB SCOUTING!**

DID YOU KNOW?

As a Cub Scout, you will be part of a pack. The pack is divided into smaller groups called dens. All of the Cub Scouts in your den are in the same grade and might even go to the same school.

GET SCOUT LIFE ON YOUR TABLET AND SMARTPHONE!



IF YOU HAVEN'T YET SUBSCRIBED,

visit go.scoutlife.org/subscribe and enter promo code DIGPRT15 to get a special print + digital bundle offer.







All About Cub Scouts

Welcome to the best adventure of your life.

That's what Cub Scouts is: one big adventure. For you and your family. Whether you're in kindergarten, fifth grade or any grade in between, Cub Scouts is a blast. You can learn to tie knots, set up a tent, and shoot a bow and arrow. You can cook a meal outdoors, go on a hike, and visit your local police and fire stations.

You'll play sports, do some crafts and learn how to eat healthily. And each time you complete a task or learn a new skill, you'll earn an award called an adventure loop.

Adventure loops are cool loops that attach to your belt. Cub Scouts in Webelos and Arrow of Light dens earn **adventure pins** that attach to their uniform or cap. The older you get and the more you accomplish, the more adventure loops and pins you'll earn.

Complete enough adventures and you will earn your rank patch, like the ones pictured above.

Are you ready? Hold on tightly. Your next adventure is about to begin!



All Cub Scouts learn the Scout Oath:

On my honor I will do my best to do my duty to God and my country and to obey the Scout Law; to help other people at all times; to keep myself physically strong, mentally awake and morally straight.

All Cub Scouts also learn the Scout Law:

A Scout is trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and reverent.

A Lion Adventure: Fun on the Run!

Staying healthy is fun. Real lions in the wild stay healthy by eating well and getting plenty of rest and exercise. A Lion Scout can do the same thing!

As a Lion, you'll learn three exercises you can do each day to help you stay healthy. You'll also learn how eating healthy snacks and getting plenty of rest is good for you.

Lions do other fun things, too. At one meeting, you'll make new friends. At another, you'll go outside and participate in a field day.

You'll get to meet people who provide a service in your community, like a police officer or firefighter. Then you'll get to provide a service yourself, maybe by planting a plant or picking up trash.

Being a Lion is great. By the end of the year, everyone will be able to hear you roar!



A Tiger Adventure: Rolling With The Tigers

Riding your bike is a great way to get around. It's good exercise, it's faster than walking and, best of all, it's tons of fun.

Falling off your bike? Not so much fun. As a Tiger, you can learn how to ride better, faster and farther, while also learning how to stay safe. You and your friends will talk about things like wearing a helmet, knowing the rules of the road and taking care of your bike.

And when you're done with that, you might play a game with your friends, like tag or maybe a relay race. What if it's too hot or too cold or too rainy to go outside? That's OK. You'll just go inside and play a board game — or maybe even a videogame — with your friends.

Basically, if you like to do things that

are fun and safe, then you're going to have a great time as a Tiger.



A Wolf Adventure: Call of the Wild

The longer you stay in Cub Scouts, the more fun stuff you get to do. As you get older, you'll advance through each of the ranks with your friends.

Wolves are in the second grade, and they get to do more hiking and camping. And while they're outside, they'll learn how to keep themselves safe by knowing what to do in case of an emergency.

Wolves might also learn about dinosaurs, make a map of their hometown or learn how to identify wild animals.



A Bear Adventure: Bear Claws

Bears are in the third grade, and they get to learn how to use a pocketknife! Don't worry: You'll get lots of practice before you start carving for real.

Bears also learn how to observe animals in the wild. They might learn how to use all kinds of different hand tools, how to catch a fish or how to take care of a pet.





A Webelos Adventure: Outdoor Adventure Adventurer

Webelos Scouts are in fourth or fifth grade, and they get to do all kinds of amazing stuff. From first aid to cooking food outdoors to learning the best ways to get exercise, Webelos Scouts do all the great things in Cub Scouting plus try some of the activities they'll enjoy in Scouts BSA.

If you like having fun with your friends, then you're going to have a blast in Cub Scouting!

FIRST AID

THE SL GUIDE FOR CUB SCOUTS

FOR ALL YOU FIRST-TIME CAMPERS - OR VETERANS

who need a refresher (that means all of us!) — the editors of *SL* have put together this guide to make your outing the best (and safest) it can be.

WHAT YOU'LL NEED TO KNOW AND DO TO BE PREPARED.



CUB SCOUT SIX ESSENTIALS

A First-aid kit can be a lifesaver. Literally.

BEFORE YOU GO

- Water can prevent dehydration, heat exhaustion and heatstroke.
- A **Flashlight** is important for finding your way in the dark. (Make sure it has fresh batteries.)
- Trail food is good for maintaining your energy.
- Sun protection might include sunblock, sunglasses, lip balm and a wide-brimmed hat.
- A whistle is a good way to call for help if you're lost.
 Don't use it for fun! Only in case of emergency.

FOR LONGER ADVENTURES IN THE OUTDOORS, ADD THESE TO YOUR GEAR LIST:

- **Extra clothing** to match the weather. Multiple layers are better than a single massive jacket, because layered clothing is adaptable to a wider range of temperatures.
- **Rain gear** is very important. Being wet from rain might result in hypothermia, a potentially dangerous condition.
- A pocketknife or multitool can be handy in a wide variety of situations. Don't forget to first earn your Whittling Chip (for older Cub Scouts) or Totin' Chip (for Scouts BSA members).
- A map and compass are probably the most important tools you can carry in case you get lost.

BASIC EXERCISES TO HELP YOU STAY IN SHAPE.

- Walk or jog For 30 minutes a day at least three days a week.
- **On other days,** work in some jumping jacks, jump rope, and pushups, pullups and situps.
- Mix up your workouts with swimming, cycling, weights or even full-court basketball. It doesn't matter which activity you choose. Just get active.



WORKOUT TIPS:

Don't forget to warm up and cool down. At the start of your workout, jog in place or do some jumping jacks to get your blood flowing. After your workout, cool down with some gentle stretching. Don't give up. Working out isn't supposed to be easy. To get in really good shape, you need to push yourself. Keep going as long as you can while maintaining good form.

Get advice From people who know what they're doing. Talk to a trusted coach or other knowledgeable adult about how to make your workouts work For you.

Tell someone where you're going.

 Build a survival kit: a heavy-duty large orange plastic trash bag, metal match with scraper, plastic whistle and glass signal mirror.

FOLLOW THE Rule of Four

SURVIVE T

One rule Scouts should always follow is the "rule of four." Have you ever heard of it? It's simple. **Every party that travels off the beaten path should contain a minimum of four people.** That way, if one person falls or is involved in some other accident, one person can take care of the injured person while two hike out for help.

IF YOU'RE LOST:

• **Stop moving around.** Sit for at least 30 minutes.

BEFORE

YOU GO:

- **Think** about what needs to be done.
- \circ **Observe** your surroundings. $_{\circ}$
- **Plan** a course of action and implement it.

- Maintain normal body temperature.
- Hydrate or die. Drink fluid regularly.
- Start a fire.
- Make yourself big –
 use your signal mirror, send smoke signals – anything.

EVALUATE: The second second

It's a portable shelter: Get one that's 4 mm thick and about 38 inches by 65 inches. Cut a hole For your Face, crawl inside and hunker down For the night. It might not look pretty, but it's lightweight, packable, cheap and will stop wind, rain and cold — and could save your life.



THE WORST KIND OF FIRST-AID KIT IS THE ONE THAT NEVER GETS MADE. BE PREPARED WITH AT LEAST THE FOLLOWING ITEMS IN YOUR PERSONAL FIRST-AID KIT:

- Six adhesive **bandages**
- Two 3-by-3-inch sterile gauze pads
- One small roll of **adhesive tape**
- One 3-by-6-inch piece of **moleskin**
- One small tube of **antibiotic ointment**
- One pair of **scissors**
- One pair of non-latex disposable gloves
- One CPR breathing barrier
- Pencil and paper
- One small bar of soap or travel-sized bottle
 of hand sanitizer

GETTY IMAGES/ISTOCKPHOTO (3)

THE DIFFERENCE OF THE DIFFERE

THE PINEWOOD DERBY is one of the

highlights of the Cub Scout year. You get to race a car that you build with your family. You learn woodworking and good sportsmanship, too. Read on to find out more about the Pinewood Derby. CONTINUED »

MORE THAN HALF A MILLION CUB SCOUTS will participate in the Pinewood Derby this year. The first Pinewood Derby was held in 1953. More than 100 million Pinewood Derby cars have been built in all. PLAY BY THE RULES Check the rules for your Pinewood Derby race to make sure these super-sciency techniques are allowed. DON'T CHEAT!

A former NASA engineer explains how you can use science to succeed at your next Pinewood Derby.

BY Mark Rober ILLUSTRATION Adam Nickel



The Science of the

PINEW

MEET MARK

ark Rober worked as a mechanical engineer at NASA for nine years. During this time, he worked on Curiosity, a carsized robot that left Earth in 2011, landed on Mars in 2012, and has been exploring, conducting experiments and sending back pictures ever since. Now Mark makes cool science-related videos.

or seven years, I worked on the Mars Curiosity rover at NASA. It is just
like a Pinewood Derby car, except it has six wheels, it's nuclear-powered and it shoots lasers.

My Cub Scout son and I decided we would take the science principles I used while building stuff for NASA and apply them to making his derby car. Here are the seven most important steps for making the fastest car possible.

SEVEN KEY STEPS

(in order of importance)

1. MAX OUT YOUR CAR'S WEIGHT at 5 ounces and make sure the heaviest part is about 1 inch in front of the rear axle. This is the most important step. Science shows if you do this correctly, you will beat a car built exactly the same – except with the weight toward its front – by 4.6 car lengths. It works because the farther back the weight is, the more potential energy you have since your center of mass is higher up on the track. (Don't put it too far back or your car will become unstable and pop a wheelie.)

2. USE LIGHTWEIGHT WHEELS. This is illegal in some races,

but if it's not in yours, this is a must-do step that will give you a 2.1-car-length advantage at the finish line versus a car with normal wheels. It works because heavy wheels take away from the kinetic energy (the energy something has due to its motion), which makes the car slower.



3. USE BENT POLISHED AXLES.

Bending your axles with a bending tool will make the wheels ride up against the nailhead, which creates less friction than if the wheel is bouncing around and rubbing against the wooden car body.



FOR MORE INFO ON THE SCIENCE OF THE PINEWOOD DERBY, AND FOR A VIDEO OF MARK SHOWING HOW TO USE SCIENCE TO MAKE A SUPER-FAST PINEWOOD DERBY CAR, VISIT go.scoutlife.org/derbyscience

> **4. RAILRIDE.** Railriding means you steer your car into the center guide track just enough that you keep the car from bouncing around. This helps reduce friction and saves energy for speed. (Grab a trusted adult and search the internet for instructional videos on how to make your car a railrider.)



5. CREATE A CAR THAT IS REASONABLY AERODYNAMIC, meaning its design cuts down on drag caused by air. No need to get crazy here, but simply having a wedge-shaped car instead of the standard block out of the box will equal a 1.4-car-length advantage at the finish line.

6. RIDE ON THREE WHEELS by

raising one wheel off the track. (Check the rules to make sure this is allowed in your race.) You will move faster if you have to get only three wheels rotating, giving you a 1.1-car-length advantage over an identical car riding on four wheels.

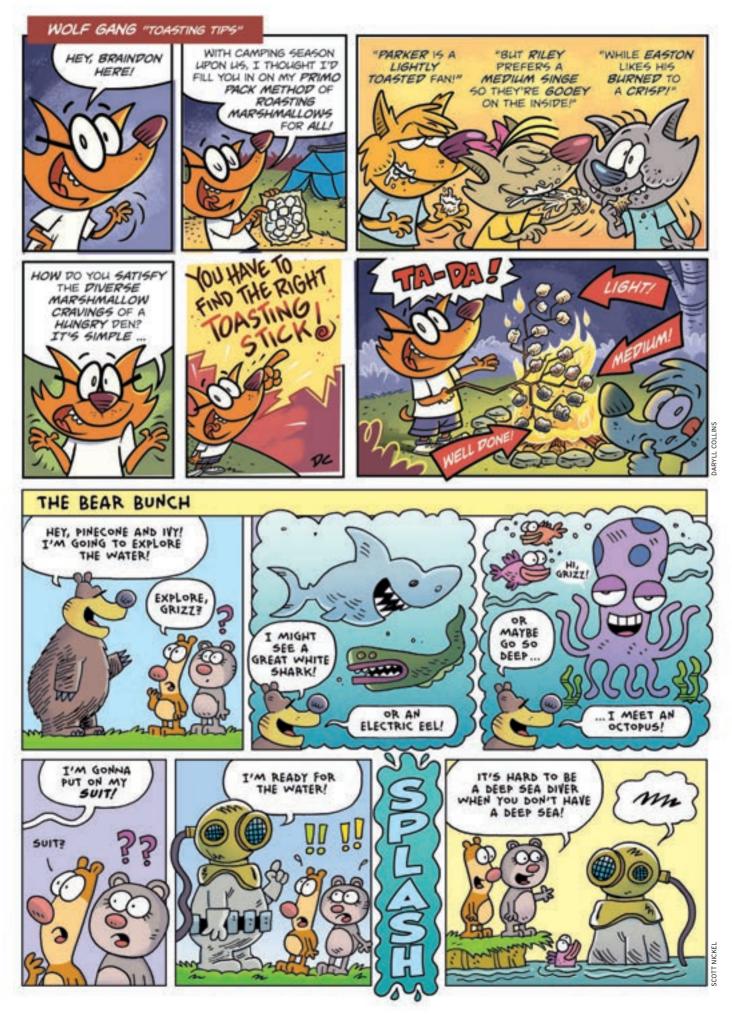
7. USE LOTS OF GRAPHITE.

There isn't a big difference in types of graphite, so buy the cheap stuff and use as much as possible. Be sure to get plenty around each wheel and on the axle.

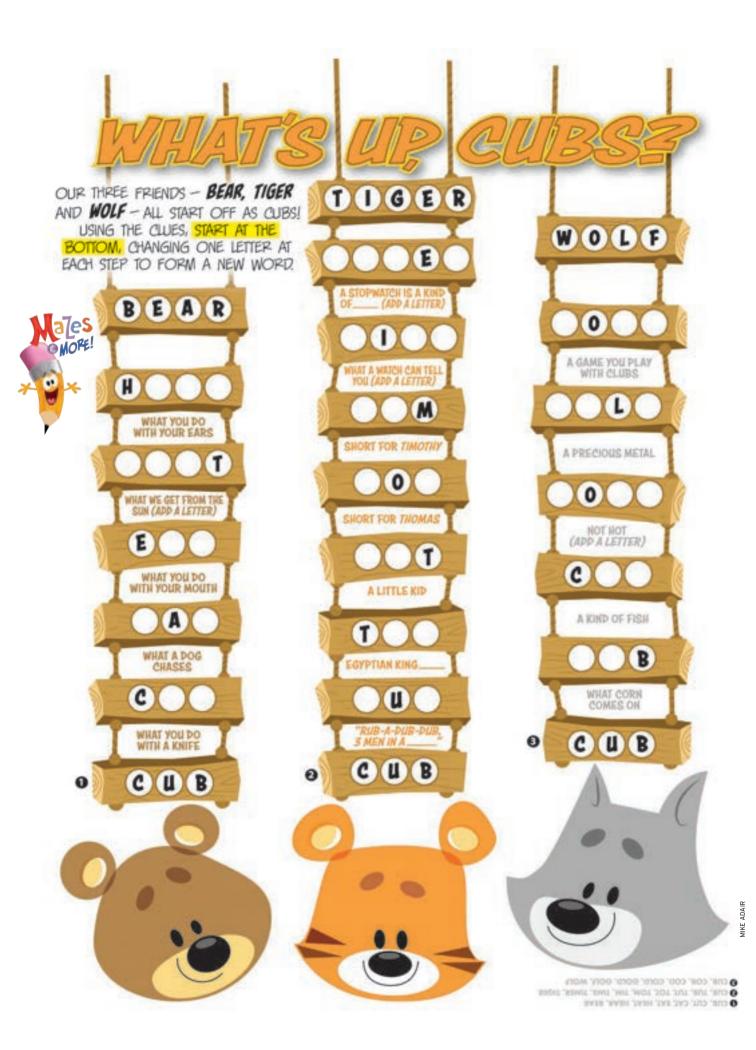
IT WORKS! After my research, my son and I wanted to do one final test to prove this is a good list. So we built a simple car using this list in 45 minutes, and we beat the fastest car in our local race by two car lengths. **TURNS OUT, SCIENCE WORKS!**

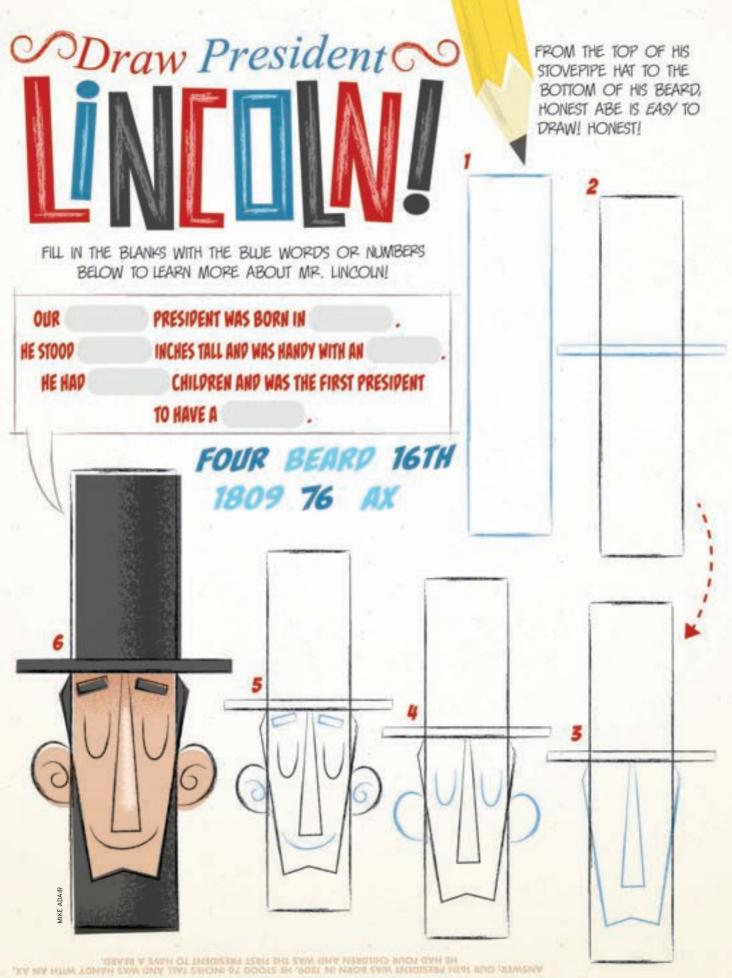














CROWN PRINCESS DUNGEON R С P MOAT CASTLE KNIGHTS Μ U s Δ Е R х O . S н E D С 0 L L DRAGON к Y DRAWBRIDGE w ĸ N N F U L т Α Z KING SHIELD S P Α М H S D N 0 L D w F ARMOR J В W Μ 0 С D Y О C G А т н Μ Α S CREST О N D D Δ Δ O U E F т L Μ Е R R Ρ Δ т G O т w С Δ R 0 FLAG н т Μ R В S т Ν Ο G O N С Δ Д FIRE M Ν Ρ s κ κ Υ D С s н L О N F F Δ н т Ρ Ν S S E R О R B R С E С R N T w U N н D Δ Е Д Ε Т Δ T Μ В G т 0 F N M F ν G О R С О G 0 1 н N Ν N М 0 D С R F R О w D R А т С А G А F D R м В R D G F F F R D М E R G A т ν U S R F R С Δ R С U Д N D О Т L С γ Δ Δ Е Ρ N A R F S С С R D Δ F F М Δ H N Ν R Ν E N s О П Ν Δ Т О R L P Μ F С R R N G Т О L Α Δ Z P S П .

en-

FIND THESE MEDIEVAL WORDS ON THE DRAGON'S BACK!

10

SWORD

SMOKE

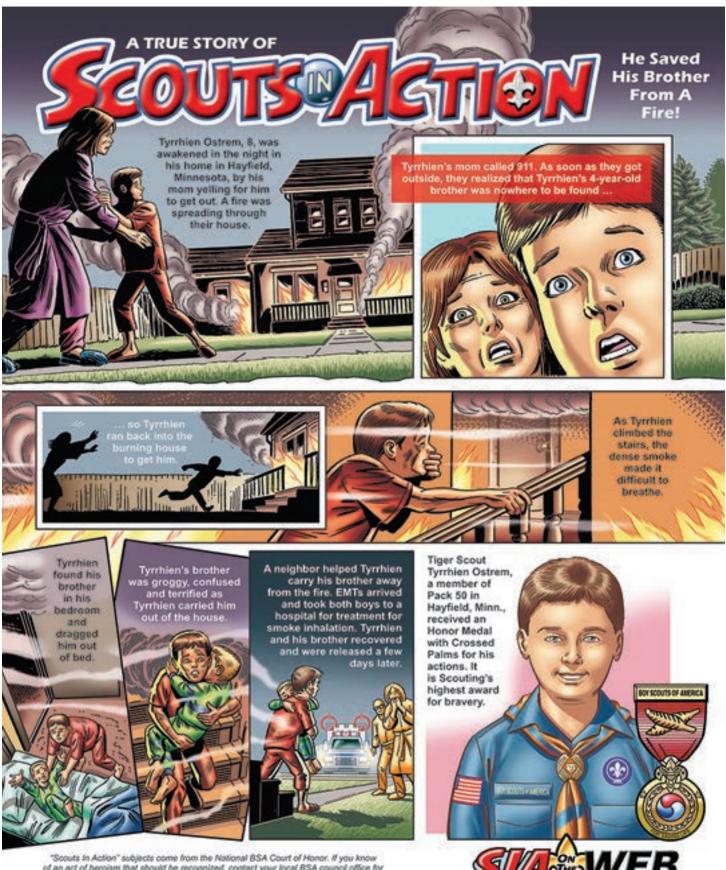
FLAME TIT

THRONE

QUEEN

111





"Soouts In Action" subjects come from the National BSA Court of Honar. If you know of an act of heroism that should be recognized, contact your local BSA council office for a lifesaving or mentoricus award application. Note: Consult approved safety guidelines, as actions depicted here may not precisely follow standard procedures.

GRANT MIEHM

go.scoutlife.org/s



More True Stories Of Scouts In Action

She Saved A Friend From Drowning!

Lillith Moakler, 8, was swimming with her brother and another boy in the pool at their home in Riverside, Rhode Island, when the boy hit his head on the pool's deck, knocking himself unconscious as he fell into the water.



Lilith dove under, brought the boy up and kept his head above water as her brother yelled for help. Lillith's mom ran to the edge of the pool, and she and Lillith lifted the boy out of the water.

As the boy regained consciousness, Lillith helped him get inside and placed a towel filled with ice on his head. Mrs. Moakler called the boy's mother, and Lillith stayed with the boy until his mom came to take him home. The Moaklers learned that the boy had a mild concussion but would recover.

Wolf Cub Scout Lillith Moakler, a member of Pack 5, chartered to St. Martha's Church in East Providence, R.I., received a Heroism Award for her actions.

He Saved His Brother From Fast-Moving Waters!

Ziphen Loucks, 8, was fishing with his family at a spillway at Rend Lake in Illinois when Ziphen's brother fell into the fast-moving water.

Ziphen dropped his fishing gear and grabbed his brother's hand before he could be pulled under.

The water was powerful, but Ziphen remained calm and quickly lifted his brother out of the rushing water. No one was harmed during the incident.

Wolf Scout Ziphen Dustin Paul Loucks, a member of Pack 348 in Steeleville, III., received an Honor Medal for his actions.

GRANT MIEHM

NOF 1



HOW TO MAKE IT

DUCT-TAPE WALLET

Use duct tape to make a handy wallet that will last for years.

WHAT YOU NEED:

- Duct tape
- Ruler

2

co

4

S

6

7

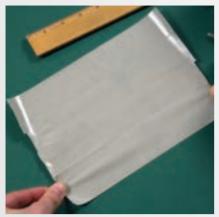
00

10

 Scissors or utility knife WATCH OUR STEP-BY-STEP VIDEO AT go.scoutlife.org/wallet

SAFETY FIRST: Ask an adult to help with tools you haven't used before. N. GARTH DOWLING (15); GETTY IMAGES/ISTOCKPHOTO (3)

START



STEP 1: Cut four strips of duct tape, each 9 inches long. With the adhesive side up, stick the duct-tape strips to one another in a row, with a 1/4" overlap.



STEP 2: Make a second sheet. Carefully stick the adhesive sides of the two duct-tape sheets together, lining up the edges.



STEP 3: Cut another 9" strip of duct tape. Use a utility knife or scissors to make a small cut in the center of one end of the duct tape. Tear the strip into two straight 1" strips.



STEP 4: Fold and adhere the 1" ducttape strips to the 9" ends of the sheet. This will make a smooth, clean finished edge.



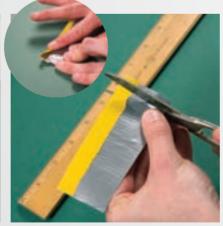
STEP 5: Using the scissors or utility knife, trim the sides of the sheet, making it 8 1/2" wide.



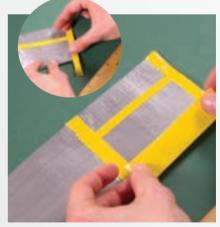
STEP 6: Fold the sheet in half. Tear two 1-by-4-inch duct-tape strips and attach one to each end. Fold them over the sides of the wallet and trim the excess.



STEP 7: To make a smaller pocket for cards, cut two strips of tape each 5" long and stick the two pieces (adhesive sides) together.



STEP 8: Fold and adhere a 1" strip onto the 5" edge. Trim the pocket to 4" long.



STEP 9: Using 1/2" strips of duct tape, stick the pocket in place as shown above. Trim the strips flush. Your ducttape wallet is complete! **‡**

Benjamin: What do you call a chicken that does martial arts? Liam: I'm stumped. Benjamin: Cluck Norris!

— Benjamin A., Charlotte, North Carolina

MANAN: How many feet are in a yard? ZEKE: How many? MANAN: It depends on how many people are standing in it.



PARWAAN: I'm trying to think of a new drum joke. HRITVIK: How's it going? PARWAAN: Beats me. Parwaan V., San Ramon, California

Sean: Can a match box? Mom: I don't know. Sean: No. But a tin can.

Sean P., Manchester, Connecticut

SAM: What do you get when you cross a rabbit and a snake? MICHAEL: I don't know. SAM: A jump rope. Bobby G., Davis, California

ANDREW: What becomes infinitely bigger when you turn it on its side? MATTHEW: What? ANDREW:: The number eight. Andrew T., Allen, Texas A PUNNY BOOK: The Art of Giving by B. Stowe. Kai L. League City, Texas

Andrew: Why can you never see a mammoth hiding behind a tree? Jacob: Because they're so good at it?

Andrew: No. Because they're extinct. Andrew T., Allen, Texas



Actually, I only got into therapy so I could get on the couch. **TOM SWIFTIE:** "I want to go exploring," Tom ventured. *Evi Z., Pewee Valley, Kentucky*

JAY: What is a sheep's favorite sports car? BARRY: No clue. JAY: A lamb-orghini. Havden B., St. Louis, Missouri



Andrew: Dave's father has three sons. Snap, Crackle and who? James: Pop? Andrew: No. Dave. Andrew T., Allen, Texas

ELI: What does an elephant wear to the beach? JONAH: What? ELI: Swimming trunks. Eli B., Bainbridge Island, Washington

MANAN: Why do we tell actors to break a leg? FRANK: Why? MANAN: Every play needs a cast. Manan S., Edison, New Jersey



LEWIS;SCOTT NICKEL [2]; BOB VOUTKO; ORLANDO BUSINO

DAT I

ė

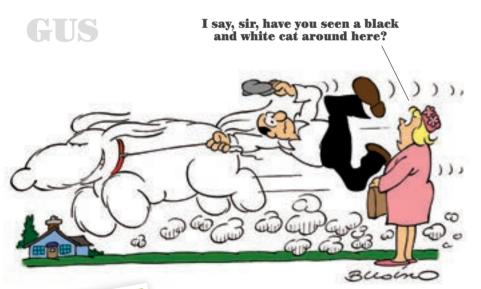
MUd

Sally: Why do witches fly on broomsticks? Connie: Tell me. Sally: Because vacuum cleaners are too heavy. Brandon B., Napoleon, Ohio

LUKE: What did the baseball mitt say to the baseball? JAKE: I don't know. LUKE: "Catch you later!" Divyanshu P., Sterling, Virginia Santana: Why aren't dogs good dancers? Jules: Why? Santana: Because they have two left feet. Santana W., San Antonio, Texas



A PUNNY BOOK: Wild Animals by Kai Otee. Hudson F., Andover, Massachusetts





Laugh at more than 4,000 more jokes, plus download, print and fold your own pocketsized joke books at **jokes.scoutlife.org**



ANDREW: What are the strongest days of the week? DANIEL: Tell me. ANDREW: Saturday and Sunday. The others are weekdays. Andrew S., South Ogden, Utah

Two atoms are walking down the street when the first one exclaims, "I just dropped an electron!" "Oh, no," says the second. "Are you sure?" "I'm positive."

Jared I., Portland, Oregon

JACK: What do you call a car that likes water? BRIAN: I don't know. JACK: A Scubaru. Brian W., Richardson, Texas

Like my new scented candle? It's called "Expensive Leather Shoes."



LUKE: How do you stop a skunk from smelling? NEAL: Give it a bath? LUKE: Hold its nose. Neal R., Oak Ridge, North Carolina ‡



Scout Life will send you this Official Contributor patch for each joke of yours we publish. Send the joke on a postcard with your complete address to Think & Grin, Scout Life, P.O. Box 152079, Irving, TX 75015-2079 or online at scoutlife.org SCOUT LIFE GOES GREEN! PLEASE RECYCLE OR PASS US ALONG!

\$15 FOR 10 ISSUES Delivered right to your door!

SUBSCRIBE TODAY!

scoutlife.org/subscribe-now/minimag use promo code: minimag