MAGIC CAMPFIRE STARTS

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INTRODUCTION

The following compilation of "Magic Campfire Starts" has been collected over a period of years and from a variety of resources. Although new methods have been added to this production, the core of ideas was submitted to The Leader magazine in April 1992 and a modified version appeared in print in the October 1992 issue of that magazine.

The Leader magazine omitted any of the chemical based methods submitted; however the reasons were valid and totally understandable. I have included a full range of magic fire starts in this booklet as I trust that recipients, who intend to practice and refine the art of magic fire starts, will exercise due care and diligence in the attempts to try some or any of the following ideas.

I caution everyone who may wish to try these ideas to be careful. I accept no responsibility for the results of your efforts, whether they are good or bad.

I do however maintain a strong interest in continuing to build and refine the ideas presented here. I would be very interested in hearing from users of this material, your comments on the content and any new ideas that you may have used.

Good Luck, and have fun!

Yours in Scouting,
Scouter Stewart Bowman,

A WORD OF CAUTION

Unless you are very comfortable with the ideas presented here, the results may not always conform to your expectations - remember Murphy's Law!

With a little forethought, care and caution you can maximize the opportunity for success and minimize the chance for failure. Don't interpret the following as rules, they are merely clarifying the common-sense approach that most of us use:

1. These ideas are not games and should not be approached as if they are.

2. I know this is contradictory, but only people in full control of their mental faculties should try these. The contradictions being that you have got to be slightly off balance to be an adult scouter anywise!

3. Exercise extreme caution when dealing with corrosive, poisonous, inflammatory material
   - Always mix and use chemicals outdoors,
   - Follow instructions to the letter. Do not experiment,
   - Never throw a lighted match into a mixture to ignite it,
   - Avoid large quantities - more is NOT better.

4. Practice the chosen fire start several times before you actually use it in front of an audience, and always have sufficient supplies on hand for your practice runs.

5. Check reaction times between activation and ignition, as this will help you plan the story that you will use in conjunction with the fire start. Become familiar with the "noises" that may accompany certain of the fire starts.

6. Always have a "Plan B" ready if "Plan A" fails - and I will, sooner or later.

CAMPFIRE ETIQUETTE

There are a number of other resources covering the structure and contents of a well-planned formal campfire. Repeating these concepts here would be somewhat redundant, but I have taken the liberty of including a copy of an excellent article on campfires that appeared in the June/July '89 issue of The Leader (Appendix III). There is one aspect, however, that I feel does warrant repetition here and that is how we conduct ourselves at the campfire.

There are 3 basic practices, which we try to follow at every formal campfire:

- No flashlights - we have the fire to light our way,
- No Clapping or Booing - that's why we have 'cheers',
- No Talking - unless you're involved in an activity, talking spoils the mood and detracts from whatever is going on.

In campfires I've attended or lead, the later point is sometimes not controlled too well. Scouter, please make sure that your scouts are not the ones disrupting the campfire. Have them show proper respect towards the efforts of the Campfire Leader and participants.

FIRE LAY CONSTRUCTION.

There are a number of different ways to build your fire in preparation for the magic fire start.

Where pre-positioning of the fire-start mechanism is involved, the Council (or Pyramid) fire lay is the preferred style. By building the various layers with dry kindling between the wood pieces, you can easily conceal your fire start material. The natural structure of this style of fire also leaves a 'chamber' in the centre that is just what you need to place your fire start mechanism in, so that any material that has to be added to cause ignition can drop on to the mechanism.

Should your fire start involve material being flown in - such as for the 'Flaming Arrow' fire start - then the Teepee style fire lay might be the choice. Where the 'arrow' enters the fire lay, an opening can be left in the fire material which can be well packed with dry kindling and other quick combustibles.

If your personal favourite is the Log Cabin style, this can also be used quite nicely with some of these magic fire start ideas. This particular style is well suited to electrical based fire starts where the ignition mechanism can be placed in the middle of the fire lay and yet still be hidden by kindling.

One item that I strongly discourage from being included in any fire lay - regardless of the weather conditions - is liquid fuel (white gas; naphtha; charcoal starter fuel, etc.) as the results can be somewhat unpredictable if used with some of the ideas presented here. Any scouter who needs this to get a fire going is probably not suited to trying Magic Fire Start Ideas (see page 3, A Word of Caution, Item #2).

SETTING THE SCENE.

Before everyone gets to the campfire, you can do a lot to prepare the scene and get everyone in the right frame of mind. Three ideas I've seen work very well, but are more appropriate at a District (or higher) camp (oree) where you have a large number of participants involved.

The first involves gathering everyone together away from the campfire area. This avoids disruption or delays at the fire itself, when groups arrive late. It also gives the Camp Fire Leader an opportunity to go through any last minute instructions. When ready, everyone can then walk quietly in file and form up around the fire site.

The second idea, coupled with the first, solves the problem of everyone not quite knowing where to stand when they get around the fire. Since we are talking about a formal campfire, reinforce this by pre-determining and marking the circumference of the fire site with suitable markers and establish an 'entrance' to this area through a flag honour guard. The Campfire Leader can then lead everyone through the honour guard and around the boundary line. By the time the leader comes back around to the perimeter to the entranceway, everyone else who followed him will be properly positioned around the fire.

The last idea is neat and very effective. Although you can mark the perimeter of the campfire circle in a number of ways, my personal favourite has involved placing lighted candles in brown paper bags. To do this you need a supply of small brown bags, then add a couple of handfuls of sand into each bag. The sand not only keeps the bag anchored on the ground, but it also keeps the neck of the bag open and forms a base in which you place a candle.

If you want to get really clever with this idea, a normal household emergency type candle will burn down at an approximate rate of 2 inches per hour. If you've planned a one-hour campfire, anchor the candle with about 2 inches left above the level of the sand.

Pre-position the bags around the perimeter of your campfire circle and have a couple of helpers (depending on the number of candles) light the candles, as participants are being lead towards the fire area. This looks really neat for those approaching the area.

Hopefully, if things go right, your perimeter candles will keep your audience from goofing around too much (since they can now be seen?), will stop them creeping ever closer to the campfire ('cause they don't want to get too close to the candles?) and will nicely close off the campfire as they all burn down around about the same time - yeah, right! But give it a try anywise.

Should you wish to be a little more creative or formal in the illumination of your campfire circle, there are a number of styles of 'torches' that can be made.

As with any matters dealing with open flames, please make sure that safety is uppermost in your thoughts when determining style, placement, proximity to people, etc.

THE USE OF STORY'S

Since we frequently arrange camps with a theme, why not evolve your campfire also around a theme, which could further impact both your campfire opening comments and the method of lighting.

In any event, magic fire starts deserve to be supported with a story. In determining the story to use remember that it should in some way 'explain' the magic involved; it could get participants active in the fire start itself; and it will enable you to set up particular timing prompts if the fire start needs assistance from others.

Mechanical Fire Starts #2 & #3 include related stories that also explain the fire start, but here are a couple of others that you could adopt & adapt.

Peter the Elf

"While getting the wood ready for the fore tonight, I came across a small wood- elf trapped in the underbrush. Since a scouter is always kind, considerate and helpful, I helped free him. In return he promised to help me if I ever needed it. All I have to do is call."

"Since this is the first time I've ever met a wood-elf, I've no idea if he will keep his promise to me. Maybe we should see if he will help us to light this fire?"
Shout out - "Peter the Elf, will you light this fire for me?" - no response. Call a second time, still nothing happens.

"Maybe he can't hear my voice. Let's all shout - Peter the Elf, will you light this fire for me?"

Time the fire start so that the fire lay ignites after the last shout.

The Indian Pow-Wow

"Some of you may know that, not very far from here is land considered sacred by the Indians who used to live in this area. No one can remember what this land was used for, but the scholars think it was where the tribe used to get together for special councils and pow-wows. It's funny, but there's no historical evidence to support this and it's all based on local legend."

"Some of you may have noticed the old farm near the camp site entrance. Old Charlie lives there and he's become quite an authority on local Indian legends."

"One of the story's he tells is of how the Indians used to signal that there was a pow-wow about to start. Once all the council members were around the circle, they would signal that they were all present by stamping their feet on the ground. Like this...." Get everyone to join in.

"At that signal the Council Chief would send a fire arrow into the air to signal the start of the pow-wow."

These ideas should give you a bit of a start in developing your own story's, and don't be afraid to tailor the fire start to the camp theme. The theme could be space, pioneering, circus, UFO's; whatever. A little creativity will enable you to come up with a really great story to introduce the fire.

MAGIC CAMPFIRE STARTS

Everyone thought that the campfire was great! It was a beautifully clear night, the fire burnt down precisely on schedule; the skits were good; the cheers were new – and appropriate. Everyone knew the words to the songs - and sang in tune (especially the adults!). How can you improve on that? Well, here are a few ideas to add to your repertoire of campfire magic.

Imagine the scene at your next campfire. Everyone has walked into the campfire circle, your opening is inspirational but everyone is wondering why the fire isn't lit yet. You then lead off with a short story to fit the circumstances and then ask for everyone's help in calling on the appropriate spirits to light the ceremonial fire. A short pause, then... FLASH! ... The campfire is roaring away and yet no one was anywhere near the fire to light it!

These magic campfire starts may help you add that touch of mystique to a potentially memorable occasion.

Mechanical Fire Starts

1. Take a 2 x 4 piece of wood, about 3 - 4 inches long. In the middle of this drill one 3/8" hole all the way through. This should be large enough to put a large nail or spike through and secure the wood to the ground. Still with this same piece of wood, drill as many 1/8" diameter holes in it that you can, but not all the way through the wood. A drill guide will help you to get all these holes the same depth. The depth will be determined by the length of the blue tip wood matches that you should then place in these holes, leaving only the match heads slightly above the wood surface.

   Take a second piece of 2 x 4 wood and glue some sandpaper to one side. Also secure a small "eye" screw to one end.

   Hold the two blocks of wood together with rubber bands (after staking the first piece of wood in the middle of your fire lay), and surround with plenty of dry kindling.

   Attach a wire to the "eye" screw and, at the appropriate moment, pull. The friction of the sandpaper against the match heads will cause them to ignite, thereby setting the kindling on fire.

2. The "Flaming Arrow" is a traditional favourite. Drive a stake a little beyond the heart of the fire lay, as it is being laid. From this stake run a length of nylon fishing line up to a nearby high point and tie securely so that the line is very taut. The angle should be sufficient to ensure a smooth and fairly rapid decent of the 'arrow' otherwise you run the risk of the flame burning through the fishing line before the arrow reaches the fire.

   The arrow is attached to the line through two spools (so make sure you thread the spools onto the line before you tie it off!) To the head of the arrow secure a bundle of dry flammable material. At the appropriate time during the introductory story, an assistant lights the arrow and releases it to slide down to set the fire alight.

   One of the benefits of using fishing line for the line to the fire, is that once the fire is alight the fishing line will burn through and the assistant can then retrieve the line without those attending the campfire being aware of it. If you find that the fishing line does not work for you, use wire instead, but tie the wire to fishing line where it passes through the fire lay. This piece will burn away when he fire is lit, allowing you to retrieve the length of wire.

   Variations on the above method include tying the flammable material directly around a weighted spool and sending that down the line to create a 'fire-ball' effect.
   I've also heard of firework sparklers being attached to the arrow to give quite a spectacular impression.

3. One idea included in several scouter resource books is to have a candle pre-lit in the fire lay, but covered by a #10 can. The candle is secured to a wooden base with a line attached to it. At the appropriate moment, pull the candle out from the can and the kindling will catch fire.

Electrical Fire Starts

When setting up electrical fire starts, the weight of the wire used to generate heat will depend on the size of the battery you intend to use and the distance between the battery and the ignition device. Practice beforehand will enable you to properly rig your fire start, but, as a guide, use fine wire for a 6-volt battery source. If your power source is a 12-Volt car battery a heavier wire will be required.

1. Steel Wool and “D” cell batteries are frequently used in survival techniques as an emergency method of starting a fire. Based on this principal, one campfire start idea is to use steel wool in the fire lay (surrounded by small dry kindling) remotely attached to a car battery. The battery could be disguised by hiding in a box that would double as a seat for the Campfire Leader, with a switch on the side of the box to complete the electrical circuit and start off your fire.

2. A variation on the above involves a little more creativity with the electrical connections. From the disguised car battery/campfire seat, you'll need 3 electrical circuits and switches. Switch #1 connects to a yellow taillight secured in the fire and hidden under kindling. Switch #2 is hooked up to a two more light bulbs. Switch #3 hooks up to steel wool, as detailed in the previous method.

   As part of your campfire opening, get everyone to assist by blowing towards the fire. As they do so, throw switch #1 and everyone should see a yellow glow coming through the fire. Turn off the switch after a second or two.

   Obviously not everyone was helping or blowing hard enough, so get them to blow again. Throw switch #2 and a stronger light will be seen in the fire. Turn the switch off after maybe five seconds.

   One last time! Obviously it was the Scouters who weren't trying hard enough. As everyone blows hard for the last time, trigger the third switch to set the fire alight.

   Remember to pull the lights attached to Switches #1 & #2 out of the fire lay before you set the fire going, unless you want to compete with exploding light bulbs!

3. Take a block of scrap 2” x 4” with a saw cut through the centre line. Two nails are driven in at either end of the block on opposite sides of the saw cut. These nails will provide 'terminals' to hook up to the power source. Insert an uncovered paper matchbook into the saw cut, and thread a very fine piece of wire through the match heads, connect the wire to the 'terminals'. Attach the wires from your power source also to the 'terminals' after connecting them through some switching mechanism. When a current is passed through the wire, heat will be generated which will ignite the matches and then set off your campfire kindling.

4. Take a bunch of friction type matches and secure with a rubber band. The bigger the bunch, the more spectacular will be the fire start. Then take a metal spring from a spring-loaded pen and stretch this spring to be slightly larger than the diameter of your bundle of matches. Lay the spring through the matches, so that it is touching the match heads. Place this bundle on kindling in your fire lay.

   Remotely attach a battery to the ends of the spring wire, through a switching mechanism. At the correct time, throw the switch and the spring will generate electrical heat, which will ignite the matches.

4. This next idea builds on the previous one, but requires a little more creative electrical and carpentry skill. Once you've set it up, however, it could be either your primary fire start method or a back-up method if “Plan A” fails.

   Take a piece of deadwood about 5-6 feet in length and at least 1 1/2 inches in diameter at the base. Carefully drill a hole vertically into the base, of a sufficient depth/breadth to hold your battery power source. Run wires (covered where exposure is not necessary) from the battery up the outside of the staff, with one of the wires going through a simple switch set at about the 4 foot mark. The ends of the wires should be stripped and terminate about 8-10 inches below the top end of the staff. Wrap several layers of dry flammable material around the first 8-10 inches from the top of the staff, secure with wire.

   Just below the flammable material, tape an open book of matches and run a fine wire, from the wires attached to the battery/switch, through the match heads.

   Hold the staff away from your body - yeah, really this is a good idea! - And trigger the switch to light the match heads which will then catch the flammable material. Your flaming torch can then light the campfire. Since you always keep a bucket of water near your fire, extinguish the torch after use and it'll be able to be used again.

Chemical Fire Starts

1. In the fire lay, place a pre-prepared piece of 2 x 4 wood, with four 6-inch nails driven partially into it. Between the nails, on the wood, place a small aluminum tart cup with at least two tablespoons of Potassium Permanganate (available from most pharmacies) in it. Supported on the heads of the 4 nails place a second aluminum cup that has had three or four small holes punched in the base. Tilt this cup to one side by placing a twig across two of the nails and then balance the cup so it is supported. In this cup place a quantity of Glycerin (also available from Pharmacy's) - but not enough so that it trickles through the holes. The twig

should have a length of fishing line tied to it, with the line stretching away from the fire lay. By pulling on the fishing line and removing the supporting twig, the cup containing Glycerin will drop to rest horizontally and the glycerin will spread out over the cup's base. A couple of drops will then fall through the pre-punched holes and onto the Potassium Permanganate.

After a short pause the glycerin will react with the Potassium Permanganate and create a flame which will need to catch your kindling thereby setting the fire lay ablaze.

2. Take a model rocket igniter (available at most hobby shops) and pass the igniter through the inside of a paper baggy leaving two little wires sticking out. Then carefully remove the contents of a "Coloured Flower Bloom" or "Giant Fountain" firework (use only one) and place into the paper baggy.

   Attach the clips from a model rocket-firing device to the two wires coming out of the baggy. Prepare the mechanism by pulling the safety pin. Then, when you're ready, press the firing button and POOF! another magic fire start.

The next two ideas are particularly clever, and I'll quote from training material prepared by Bill Glover, DRC (Training), Southern Alberta Region, as he explains them excellently....

3. Crush 1 teaspoon of iodine crystals to a very fine powder, and then mix with 2 teaspoons of powdered aluminum. IT IS CRITICAL THAT THIS MIXTURE REMAINS ABSOLUTELY DRY.

   Place this mixture in the fire lay on a piece of plywood, forming a volcano shaped mound. When the participants are gathered around the campfire, ask if anyone has a canteen of water in case the fire gets 'out of hand' (you may want to set this up beforehand). Pat your pockets as if looking for a match, but finding none, ask to borrow some water. Sprinkle it on the fire lay (ensure a few drops hit the iodine/aluminum mixture) and you will be greeted by billowing purple smoke, followed by deep red flames. Someone is bound to ask, "OK. So how do you put it out?" Simply tell them you'll throw matches on it!

   Note: The powdered iodine "evaporates" very quickly. As a result this mixture must be used within about 10 minutes of preparation.

A teaspoon of Pinesol or Pine Oil is placed in a shallow container within the fire lay. The story that Bill uses to introduce this magic fire start is based on the ashes from a previous campfire. The "Ashes" are a half a cup of HTH Granulated chlorine. When the two are combined, they produce a large quantity of white smoke, followed by flames. This is a relatively slow reaction, so Bill opens the campfire with the following story.

"As we gather here tonight, for our formal campfire, I think back to the closing campfire from last year. It was such a great fire, and the feelings of love and friendship so strong. In order to try and rekindle those feeling for our fire tonight, I would like to add some of the ashes from last year's fire. Now, before I light the fire tonight, I would like you all to look at this pile of wood, and think about your own feelings about last year's fire, and what made it special for you."

SPECIAL EFFECTS.

Once your campfire is nicely roaring, it may be appropriate to add 'special effect' flames to enhance a story or just close down the campfire ceremony with a little more magic. Try adding a spray of chemicals to the fire. The following can either be sprinkled on the logs as you build the fire lay or added to the fire itself to enhance a story or activity. They all create a flare of coloured flame than can be really effective if not overdone.

COLOURED FLAMES

Yellow - potassium nitrate (salt petre)
- Sodium chloride (table salt)

Green - borax
- Barium nitrate
- Copper sulphate

Purple - lithium chloride

Red - strontium nitrate

Orange - calcium chloride ("Road Salt")

SPARKLES

Silver - powdered aluminum

Gold - iron filings

FLASHES

Red - strontium nitrate } equal parts by
- powdered magnesium } weight.

Green - potassium nitrate }
- boric acid } equal parts by
- powdered magnesium } weight.
- powdered sulphur }

SMOKE

- black gunpowder } equal parts by
- powdered magnesium } weight.

Where the above chemicals or compounds are not readily available from Hardware/Grocery Stores or the local Pharmacy, check the 'Yellow Pages' for a chemical supply company.

In talking to your pharmacist (for example) please ensure that you have developed some sort of level of comfort with the owner before you start asking for a variety of chemicals. Let them know the purpose for the chemicals, and that you are a registered scouter not some closet pyromaniac!

One method of adding chemicals to a campfire without anyone being aware that it was done is to use a photographer's airbulb release. These use a tiny black airhose attached to a squeeze-bulb trigger. The airhose can be buried so as to remain unseen, and the simple act of stepping on the airbulb (perhaps further hidden under a piece of bark) will blow the spray of chemicals onto the fire.

Another method is to take a six inch long piece of 1" copper pipe and stuff 4" pieces of good quality lawn soaker hose into both ends (don't use the clear type of hose). Placed in the fire you'll have an abundance of coloured flames. Using 2 or 3 of these can create a super effect.

A third option is to pre-make "shots" that can be flipped into the fire. A "shot" is made by creating a tightly rolled ball of paper, dipped in wood glue and the roll in a tray of the chosen chemical. The chemical will coat the outside of the ball and react when thrown into the fire. Store these "shots" in an egg carton until needed - one "shot" per egg carton section!

Here's another 'sparkling thought' from the pages of The Leader. You need enough sugar to give everyone a small handful. After closing the campfire, have everyone walk past the fire embers and toss their sugar onto the fire. You can compare the flashing sparks and quick flares to happy thoughts, or simply enjoy these thoughts in silence.

PHYSICAL LOCATION

If you want to make your campfire even more memorable (is this possible? - you ask) consider the actual location of your campfire. Anyone can light a fire in the middle of an open field - why don't you try something different?

If you're camping by a lake, why not construct a solid raft and have the fire burning on it? Lighting it out of sight of your assembled audience, then allowing it to drift into position behind the campfire leader will create a very special image. Remember to suitably anchor the raft so that it doesn't keep drifting past you!

An alternative may be to have the fire towed in by canoe (two towing with a third canoe to provide a trailing anchor). The canoeist's can bring the fire raft in and beach it on the shore in front of the assembly.

Back on dry land, why not construct your fire lay a couple of feet above the ground on a lashed frame? Trickier yet would be to have the fire lay built on a secure frame and then hoisted (using rope and pulleys) some distance above the ground. Once the fire is lit, using a "magic fire start" idea, the campfire could then be lowered to the ground to create another memorable opening.

When you have a particularly large group of participants at a campfire, instead on one central fire why not consider having three or four fires in the circle? In addition to giving a greater illusion of warmth to participants, a 'stage' is naturally formed between the fires for the campfire leader and any groups doing skits, etc.

CONCLUSION

As the flames from the fire burn down, and participants slowly walk away in wonderment and appreciation, reflect on your achievement. A campfire can be a memorable occasion for youth and adult alike, but it doesn't happen by accident.

The day was long; we've worked and played.
And round this fire, we've good friends made;
We've shared a friendship fine and deep,
And now this circle leaves, to sleep.

As Campfire Leader you have put a lot of time and effort into planning, setting the scene, and stage-managing the evenings activities. Now it is time for you to walk away from the dying embers, reflect on your success, and enjoy a time of friendship and fellowship with the scouts and Scouters.

Sit back, relax, and start to figure out how you're going to lead your next magic campfire so that it's even more memorable than this one!

Good Luck, have fun, and let me know how it goes.
Scouter Stewart.

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Last, but certainly not least, the greatest acknowledgement has to go to the youth members we do this for. They come in all shapes & sizes; attitudes & aptitudes; motivated & mischievous; but they make it all worthwhile.

Thank you, one and all.