

# January 2010

## Many Waters District

### Cub Scout Roundtable

### Den Leader Breakout



“The spirit is there in every boy; it has to be discovered and brought to light.”

Quote by: Lord Baden-Powell

January 6<sup>th</sup>, 2011

## Agenda

**Before the Meeting Starts** –Opening game (Positive Attitude), business items and activities.

**Gathering** – Discussion on how things are going within our dens.

**Opening** – Games ("The Good Thing Was..." Game), Crafts (Compass Neckerchief Slide, Bird Caller and Crosscut Branch Lanyard)

**Business Items** – The 'Out' of Scouting - World Conservation, Leave No Trace, Hikes, Rockets, Geocaching and Pinewood Derby

**Activities** – Story – (Positive Attitude), Songs – (Don't Stop by Fleetwood Mac, Up to Eagle by Peter McCloy and Trent Doering), Discussion – (Positive Attitude during Scouting Activities), and take a look at den meeting plans for November.

**Tiger** – 9. How Do You Celebrate? and Making Decorations. Elective 1 and Elective 2. 10. Go See It: Making Change and Banking Do: Elective 13, Elective 50.

**Wolf** – 9. Tools for Fixing and Building Do: Achievement 5a–e HA: Achievements 10 and 11, Elective 13c. 10. Birds Verify: Achievements 10 and 11 and Elective 13c, Do: Elective 13a–e; Achievement 10a–g, HA: Elective 13f.

**Bear** – 9. Building Muscles and Games, Games, Games! Verify: 11e, Do: Achievements 15b and 16a–c, HA: Achievement 13a–g (any four) 10. Saving Well, Spending Well and Games, Games, Games! Verify: Achievement 13a–g (any four), Do: Achievement 15a–c, HA: Achievement 6a.

**Webelos** – 9. Geologist Do: Geologist 1, 2, 8, HA: Review Geologist chapter. 10. Geologist Do: Geologist 4, 5, 6 HA: Review Engineer Chapter.

**Arrow of Light** – Scientist 9. Readyman Verify: All Readyman, Do: Readyman 4–7, 8. 10. Arrow of Light Do: Arrow of Light make up and ceremony preparation, HA: Handyman 1. Review Handyman chapter.

**Announcements** – Trainings (Positive Attitude)

### After the Meeting

This handout can be found online at:

<http://manywaters.nsbsa.org/Roundtable/CubScoutRoundtableReferences.aspx>

Helpful link to Baloo's Bugle (Roundtable plan)

<http://usscouts.org/bbugle.asp>

## Gathering - Activity

**Opening** – Discussion on how things are going within our dens.

### Positive Attitude Games – Pollyanna's Glad Game, "The Good Thing Was..." Game

In many ways, people are alike; however, one little difference almost always makes a big difference. The little difference is attitude.

William James, over a century ago said, "The greatest discovery of this generation is that a human being can alter their life by altering their attitude."

Attitudes truly are contagious, and from time to time we need to ask ourselves... "is mine worth catching?"

<http://www2.fultonschools.org/school/wilsoncreek/Counseling%20website/Character%20Links/Nov%20-%20Positive%20Attitude.pdf>  
<http://www.benefittrust.org/positiveattitude.htm>

#### Pollyanna's Glad Game

In the classic children's book Pollyanna, the main character is a young girl who makes a game of positivity, by finding the good in absolutely everything. The game was inspired by her father, who helped her deal with a disappointing Christmas gift by finding a reason to be glad. Instead of a doll, she was given crutches. Her father directed her to be glad because she didn't need them.

This game isn't a competitive game, the challenge lies in retraining yourself to manifest a positive attitude under any circumstance. If you're working with children, you can practice by finding reasons to be glad in regard to a list of positively dreadful situations. If the house burns down, be glad you weren't in it. If your puppy dies, be glad you knew him. Practicing with made-up situations can make it easier to "play the game" when a real situation comes along. [http://www.ehow.com/way\\_5329550\\_game-ideas-positive-attitude.html](http://www.ehow.com/way_5329550_game-ideas-positive-attitude.html)

#### "The Good Thing Was..." Game

Behavioral Skill: Positive attitude

Objective: To help children develop a more optimistic outlook on their immediate situation

Materials: None

Number of Players: 2-4

Ages: 6+

Setting: Any

Preparation: None

Time: Five minutes

Description: Players tell a group story, alternating negative statements with positive ones

#### How To Play

1. The youngest player starts the story, "Once upon a time..."
2. The next player says something bad that happens (e.g., "Once upon a time Johnny was feeling uncomfortable, because it was too hot outside").
3. The next player offers a sentence describing a more positive turn of events (e.g., "The good thing was, there was a nice, cool lake nearby that was good for swimming").
4. The next player then introduces a negative idea, and so on.
5. Let the story go on for at least five minutes.
6. After five minutes, the last player comes up with a positive ending to the story.



<http://www.guidancechannel.com/default.aspx?M=a&index=1439&cat=21>

## Crafts

### Compass Neckerchief Slide

Hiking, outdoors and Scouts brings to mind a compass! Here's a fun neckerchief slide that uses a pretty nice plastic compass that can be purchased online <http://www.a1components.com/itemdisplayn.aspx?item=10438> (\$0.59) or at Ax-man Surplus <http://ax-man.com/> (\$0.85)

Hot glue jute (or sisal or yarn...) all around compass. Leave both ends hanging from the compass. Cut ends into a point to make stringing pony beads easier. Slide both ends into one pony bead and push it all the way to the compass. String one pony bead onto each end. Tie knot to secure. Trim.



**Business Items** – The "out" in scouting: World Conservation, Leave No Trace, Hikes, Rockets, Geocaching and Pinewood Derby.

### ***World Conservation Award***

<http://usscouts.org/advance/cubscout/worldcons.asp>

The World Conservation Award provides an opportunity for individual Cub Scouts, Boy Scouts, Varsity Scouts, and Venturers to "think globally" and "act locally" to preserve and improve our environment. This program is designed to make youth members aware that all nations are closely related through natural resources and that we are interdependent with our world environment.



The Cub Scout version of the World Conservation Award can be earned by Wolf or Bear Cub Scouts, and by Webelos Scouts.

This award can be earned only once while you are in Cub Scouting (i.e. as either a Wolf Cub Scout, a Bear Cub Scout, or as a Webelos Scout).

As a Wolf Cub Scout, you can earn the Cub Scout World Conservation Award by doing the following:

1. Complete achievement #7 - Your Living World
2. Complete all Arrow Points in 2 of the following 3 Electives:
  - #13 – Birds
  - #15 – Grow Something
  - #19 – Fishing
3. Participate in a den or pack conservation project in addition to the above

As a Bear Cub Scout, you can earn the Cub Scout World Conservation Award by doing the following:

1. Complete achievement #5 - SHARING YOUR WORLD WITH WILDLIFE
2. Complete all requirements in 2 of the following 3 electives:
  - #2 – Weather
  - #12 – Nature Crafts
  - #15 – Water and Soil Conservation
3. Participate in a den or pack conservation project in addition to the above

As a Webelos Scout, you can earn the Cub Scout World Conservation Award by doing the following:

1. Earn the Forester activity badge.
2. Earn the Naturalist activity badge.
3. Earn the Outdoorsman activity badge.
4. Participate in a den or pack conservation project.

### ***Leave No Trace (Front Country Guidelines)***

<http://www.scouting.org/scoutsorce/CubScouts/resources/LeavenoTrace.aspx>

Leave No Trace are guidelines were originally defined by the United States Forest Service, The National Park Service and the Bureau of Land management in the 1970's. The Boy Scouts of America started using a pilot program in the 1980's and by 1990 the current guidelines were defined. The guidelines are now managed and taught by the Leave No Trace Center for Outdoor Ethics. This organization is currently active in the United States and 25 other countries. There a different ethics for different trips. Some of these include:



Outdoor Ethics for Frontcountry, Outdoor Ethics for Backcountry, Outdoor Ethics for Hunters, Outdoor Ethics for River Corridors and Outdoor Ethics for Heritage Sites

These are the Cub Scout Leave No Trace requirements:

As more people use parks and recreation facilities, LEAVE NO TRACE® guidelines become even more important for outdoor visitors.

Leave No Trace is a plan that helps people to be more concerned about their environment and to help them protect it for future generations. Leave No Trace applies in a backyard or local park (front country) as much as it does in the wilderness (backcountry).

We should practice Leave No Trace in our attitude and actions--wherever we go. Understanding nature strengthens our respect toward the environment. One person with thoughtless behavior or one shortcut on a trail can spoil the outdoor experience for others.

Help protect the environment by remembering that while you are there, you are a visitor. When you visit the outdoors, take special care of the area. Leave everything just as you find it.

Hiking and camping without a trace are signs of a considerate outdoorsman who cares for the environment. Travel lightly on the land.

## **Six Leave No Trace Guidelines for Cub Scouts**

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### **PLAN AHEAD**

Watch for hazards and follow all the rules of the park or outdoor facility. Remember proper clothing, sunscreen, hats, first aid kits, and plenty of drinking water. Use the buddy system. Make sure you carry your family's name, phone number, and address.



### **STICK TO TRAILS**

Stay on marked trails whenever possible. Short-cutting trails cause the soil to wear away or to be packed, which eventually kills trees and other vegetation. Trampled wildflowers and vegetation take years to recover. Stick to trails!



### **MANAGE YOUR PET**

Managing your pet will keep people, dogs, livestock, and wildlife from feeling threatened. Make sure your pet is on a leash or controlled at all times. Do not let your pet approach or chase wildlife. When animals are chased or disturbed, they change eating patterns and use more energy that may result in poor health or death.

Take care of your pet's waste. Take a small shovel or scoop and a pick-up bag to pick up your pet's waste— wherever it's left. Place the waste bags in a trash can for disposal.



## LEAVE WHAT YOU FIND

When visiting any outdoor area, try to leave it the same as you find it. The less impact we each make, the longer we will enjoy what we have. Even picking flowers denies others the opportunity to see them and reduces seeds, which means fewer plants next year.

Use established restrooms. Graffiti and vandalism have no place anywhere, and they spoil the experience for others. Leave your mark by doing an approved conservation project.



## RESPECT OTHER VISITORS

Expect to meet other visitors. Be courteous and make room for others. Control your speed when biking or running. Pass with care and let others know before you pass. Avoid disturbing others by making noise or playing loud music.

Respect "No Trespassing" signs. If property boundaries are unclear, do not enter the area.



## TRASH YOUR TRASH

Make sure all trash is put in a bag or trash receptacle. Trash is unsightly and ruins everyone's outdoor experience. Your trash can kill wildlife. Even materials, such as orange peels, apple cores and food scraps, take years to break down and may attract unwanted pests that could become a problem.

## Cub Scouting's Leave No Trace Awareness Award

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### **Tiger Cub, Cub Scout, Webelos Scout      Cub Scout Leader**

1. Discuss with your leader or parent/guardian the importance of the Leave No Trace frontcountry guidelines.
  2. On three separate outings, practice the frontcountry guidelines of Leave No Trace.
  3. Boys in a Tiger Cub den complete the activities for Achievement 5, Let's Go Outdoors; boys in a Wolf den complete Requirement 7, Your Living World; boys in a Bear den complete Requirement 12, Family Outdoor Adventures; boys in a Webelos den earn the Outdoorsman activity badge.
  4. Participate in a Leave No Trace-related service project.
1. Discuss with your den's Cub Scouts or your pack's leaders the importance of the Leave No Trace frontcountry guidelines.
  2. On three separate outings demonstrate and practice the frontcountry guidelines of Leave No Trace.
  3. Participate in presenting a den, pack, district, or council awareness session on Leave No Trace frontcountry guidelines.
  4. Participate in a Leave No Trace-related service project.
  5. Commit yourself to the Leave No Trace front country guidelines by signing the Cub Scout Leave No Trace Pledge.

5. Promise to practice the Leave No Trace front country guidelines by signing the Cub Scout Leave No Trace Pledge.
6. Draw a poster to illustrate the Leave No Trace frontcountry guidelines and display it at a pack meeting.
6. Assist at least three boys in earning Cub Scouting's Leave No Trace Awareness Award.

Patches (catalog number 08797) are available through your local council.

## **Want to do more? Take The Pledge!**

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You can take the pledge to practice the Leave No Trace front country guidelines wherever you go. Just review the guidelines and promise to practice them in your front country outings.

### **Cub Scout Leave No Trace Pledge**

I promise to practice the Leave No Trace front country guidelines wherever I go:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Plan ahead.</li> <li>2. Stick to trails.</li> <li>3. Manage your pet.</li> </ol> | <ol style="list-style-type: none"> <li>4. Leave what you find.</li> <li>5. Respect other visitors.</li> <li>6. Trash your trash.</li> </ol> |
|--|---|

REI Coop offers a program that teaches Leave No Trace called PEAK

The PEAK program, which consists of an REI backpack stuffed with essential gear for outdoor adventure, as well as games, activities and lessons, is presented as a convenient and fun way to teach young people ethics. REI used to visit your location but now you must visit a local REI Coop store.



<http://www.rei.com/aboutrei/reikids02.html>  
<http://www.lnt.org/programs/peak/index.html>

You can become a Leave No Trace Instructor by taking a course through the Leave No Trace Center for Outdoor Ethics.



<http://www.lnt.org/>  
<http://www.lnt.org/training/educationaltraining.php>  
[http://en.wikipedia.org/wiki/Leave\\_No\\_Trace](http://en.wikipedia.org/wiki/Leave_No_Trace)

## **Hikes**

Hikes are a great activity to do together as a den. Each year you should plan on at least a few hikes during the year. At Tiger level you'll want to stick to hike around the school grounds or maybe at a local park. At Wolf and Bear the boys will like the hikes that are at the Nature Center or County Parks. By the time my dens are at the Webelos level, we're doing the historic hikes, state park hike and then doing on big hike at an early summer den campout. A couple of years ago our big hike was at Effigy Mounds National Monument. The boys did great and I think they'll treasure those memories for their lifetime. This year my son's Webelos big campout / hike will be at Forestville / Mystery Cave. Just remember that to do these kind of activities with your den (and be covered with insurance by the BSA) you need to be Baloo trained and with the Webelos have attended Outdoor Webelos Leadership training. These are great fun and well worth it if you haven't taken them already. They're offered a couple of times a year. Our district offered this training earlier this fall but if you watch, it may be offered again in the spring. These trainings are also required if you wish to go to Wood Badge, which is great fun and very rewarding. Think about doing these for the boys and for yourself.

### **Local Hikes**

### **County Parks**

#### **Washington County Parks**

Big Marine Park Reserve  
17495 Manning Trail N.  
Marine on St. Croix, MN 55047  
Phone: 651-430-8200

Lake Elmo Park Reserve  
1515 Keats Avenue North  
Lake Elmo, MN 55042  
Phone 651-430-8370



Special Projects - Washington County Parks works with a variety of groups on specific projects. This includes scout groups, school groups, and all ages of church and other community groups. Some of these types of projects include Eagle Scout projects, litter pick-up, painting projects, nest box installation and monitoring, and many others. If you are interested in volunteering in one of these areas, or an area that would be more suitable to you, please contact the Park Division Manager at (651) 430-8375.

[http://www.co.washington.mn.us/info\\_for\\_residents/parks\\_division/programs\\_and\\_events](http://www.co.washington.mn.us/info_for_residents/parks_division/programs_and_events)

[http://www.co.washington.mn.us/info\\_for\\_residents/parks\\_division/donations\\_and\\_volunteers](http://www.co.washington.mn.us/info_for_residents/parks_division/donations_and_volunteers)

### **Ramsey County Parks and Nature Centers**

White Bear Lake  
5050 Lake Avenue  
White Bear Lake

Tamarack Nature Center  
5287 Otter Lake Road  
White Bear Township, Minnesota 55110  
651-407-5350

[tamarack@co.ramsey.mn.us](mailto:tamarack@co.ramsey.mn.us)

<http://www.co.ramsey.mn.us/parks/volunteer/index.htm>  
[http://www.co.ramsey.mn.us/parks/tamarack/Boy\\_Scouts.htm](http://www.co.ramsey.mn.us/parks/tamarack/Boy_Scouts.htm)  
<http://www.co.ramsey.mn.us/parks/volunteer/index.htm>

## **Anoka County Parks and Nature Center**

Rice Creek Chain of Lakes Park Reserve  
7401 Main Street  
Lino Lakes, MN

Martin-Island Linwood Lakes Regional Park  
22480 Martin Lake Road NW  
Linwood Township, MN

Coon Lake County Park  
5450 - 197th Avenue NE  
Columbus, MN 55092

Wargo Nature Center  
7701 Main Street  
Lino Lakes, MN 55038  
651-429-8007

Specific projects include trail maintenance, garden weeding, Earth Day clean-up and various other activities. Wargo Nature Center has programs with Naturalists and Science programs.

[http://www.co.anoka.mn.us/v3\\_parks/facilities/wargo.htm](http://www.co.anoka.mn.us/v3_parks/facilities/wargo.htm)  
[http://www.co.anoka.mn.us/v3\\_parks/programs/wargo/small-groups.htm](http://www.co.anoka.mn.us/v3_parks/programs/wargo/small-groups.htm)

## **Regional Parks**

Bald Eagle-Otter Lakes  
5800 Hugo Road  
White Bear Township, 55110

Vadnais-Snail Lakes  
4191 Snail Lake Boulevard  
Shoreview/Vadnais Heights

Vadnais-Sucker Lakes Picnic Area  
4500 Rice Street  
Vadnais Heights

Lee & Rose Warner Nature Center  
15375 Norell Ave. N  
Marine on St. Croix, MN 55047  
(651) 433-2427 ext. 10  
<http://www.smm.org/warnernaturecenter/cubscouts/>

Many of these places also have great programming for scouts and families related to outdoor themes.

## ***Historic Hikes - L'Étoile du Nord and Fort Snelling***

Historic hikes are setup by a local Northern Star Council Troop. Historic Hikes are also setup throughout the country. A historic hike consists of a hike that has a specified route with questions that need to be answered

along that route that pertain to the history of the area. Complete question sheets can be brought to a local Scout shop and the awards will be made available. These hikes are a little long for younger Scouts but Webelos should be able to complete them. Allow up to 5 hours to complete the hike, so bring trail mix and water.

## Fort Snelling

The Fort Snelling Historic Trail has been established in the City of Minneapolis in Minnehaha Falls Park, the Minnesota Fort Snelling State Park, and along the Mississippi River. The Trail is intended to familiarize hikers with the great important history of early Minnesota exploration by Europeans and the US Army. The hike begins near the pavilion in Minnehaha Park, crosses Minnehaha Creek, and continues southeast following the bike trails on the bluffs along the creek.

(Approximate total distance is 5 miles)

Viewing the falls can be accomplished from the top or lower walkway, just as Father Louis Hennepin first saw them in 1680. Father Hennepin is credited as being the first European to see the falls.

(56 questions, many of them must be answered while inside the fort.)



<http://www.nsbsa.org/Forms/AdvAwards/HistoricFortSnelling.pdf>

## L'Étoile du Nord - Trail of the North Star

L'Étoile du Nord Trail (Trail of the North Star) has been established in the downtown area of St. Paul. The Trail is intended to familiarize hikers with an area of great historical value. (54 question, many of them within the St. Paul Cathedral, the state capitol and downtown building. This would be the one to start with and should be done on a Saturday)

<http://www.troop283.net/l%E9toiledunord.pdf>

## Model Rockets

### 1. Model Rocketry - In General

<http://www.mn-rocketry.net/mrn/general.htm>

What is it? Model rocketry is a safe and fun hobby/sport/recreation/educational tool.

What are they made of? Model rockets are made of lightweight materials such as paper, wood, rubber, and plastic. They contain very little or no metal.

What powers them? Model rockets are powered by safe, commercially made, solid-fuel motors. The motors are used only once, but the rocket may be launched many times by using a new motor each time. The motors are ignited by an electrical current from a safe distance. You do NOT make your own motors. You do NOT use fuses. Model rockets are NOT fireworks! Advanced rockets may use "reloadable" motors where you assemble commercially-made motor parts into a reusable casing. You must be 18 or older to purchase these reloadable motors.



How do you get the rocket back? All model rockets are required to have some sort of "recovery system" to bring the rocket gently back to earth. Usually this will be a parachute or streamer. However, some rockets will glide back just like the space shuttle or spin down like a helicopter.

How high and fast can a model rocket go? Because model rocket motors come in different sizes and different "powers", a model rocket can go to different altitudes (heights) depending upon which motor you put in it. On a small motor, some rockets may only go up 100 feet, but rockets that use larger motors may go up over 1,000 feet! Some rockets even use several motors in different "stages". A three-stage rocket could go up over 2,000 feet! Most model rockets can travel at several hundred miles per hour. Some advanced model rockets can go faster than the speed of sound!

Is it safe? Modern model rocketry, which started in about 1957, has a proven safety record with well over 500 million launches. All rocketeers must follow the "Model Rocketry Safety Code" as developed by the [National Association of Rocketry](#).

How much room do I need to launch model rockets? For the smallest rockets on the smallest engines, you need a launch site that is at least 50 feet on a side. However, the recommended size goes up quickly. For large model rockets on big engines, you need a site that is at least 500 feet on a side. Most of the time, an open area the size of an athletic field (soccer, football, baseball, etc.) will work fine. The bigger that the rocket is, and the higher that it goes, the larger an area you'll need.

Are rockets hard to build? Model rocket kits come in different skill levels. The rockets at the lowest skill levels are easy to build and don't require any painting. You can probably put one together in an hour or less. As the skill levels go up, the rockets will become more complicated and will require more time and effort to build. Some simple rockets may be purchased pre-built or "ready-to-fly".



How much does it cost to start out in model rocketry? You should buy a "starter set" for about \$29 to \$45. It contains a rocket kit, a launch pad, a launch controller, and enough supplies for a couple of launches. You'll probably spend a few dollars more on glue, some new batteries for the launch controller, and some extra engines to launch the rocket even more times. The launch pad and controller will work for nearly any rocket you build in the future, so you're set to start a great hobby!



Aren't there bigger rockets and engines? Yes! There are large model rockets which weigh up to 3 pounds and use bigger engines (like E, F, and G's!). They are more expensive, and they need bigger, heavier-duty launch equipment than smaller rockets. You also need more room to fly them. High power rockets are those that weigh more than 3 pounds or use engines of size H or larger! The complexity and cost go up again, but, in return, you get to fly big rockets that make big smoke and big noise. Be warned, though, that bigger rockets bring with them more rules and regulations! For more information on big rockets, see the [Tripoli Rocketry Association](#).

## 2. Rules & Regulations

<http://www.mn-rocketry.net/mrn/rules.htm>

Model rocketry is completely legal under Minnesota state law. Model rockets are NOT fireworks!

The flying of model rockets may not be allowed in public parks in some cities. You should check with local authorities first. In all cases, you should have the permission of the landowner before flying rockets on private property.

Always follow the [model rocketry safety code](#) and/or the [high power rocketry safety code](#)!

## 3. Boy Scouts of America

<http://www2.estesrockets.com/cgi-bin/wedu001P.pgm?p=youth>



Cub Scouts – Bear Handbook  
Achievement 21 – Build a Model

21a: Build a model from a kit.

21f: Make a model of a rocket, boat, car or plane.

Elective 1 – Space

d. Build a model of a rocket or space satellite.

Estes Rockets to Use with Cub Scouts:

Snap together rockets – Firestreak SST, Dragonite

E2X Lab Packs – Gnome (available only at the BSA National Supply Division), Alpha III, Generic E2X and Up  
Aerospace SpaceLoft

Webelos Scouting – Webelos Scout Book

Technology Activity Badge Group – Scientist

Build and launch a model rocket with adult supervision.

Estes Rockets to Use with Webelos:

Snap together rockets – Firestreak SST, Dragonite

E2X Lab Packs – Gnome (only at the NSD), Alpha III, Generic E2X,

Up Aerospace SpaceLoft Boy Scouts – Merit Badge

Space Exploration

Build, launch, and recover a model rocket. Make a second launch to accomplish a specific objective.

Estes Rockets to Use with Boy Scouts:

Whole group activity – Skill Level 1 Lab Packs – Alpha, Viking, Wizard

Individual activity – Scout's choice of any Skill Level 1 or Skill Level 2 rocket Interesting Fact:

Way back when the Boy Scouts' Space Exploration Merit Badge was created, Estes authored the model rocketry section.

#### **4. Model Rocket Safety Code**

<http://www.nar.org/NARmrsc.html>

1. Materials. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.
2. Motors. I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.
3. Ignition System. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.
4. Misfires. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.
5. Launch Safety. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller, and 30 feet when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance.

6. Launcher. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.
7. Size. My model rocket will not weigh more than 1,500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse.
8. Flight Safety. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.
9. Launch Site. I will launch my rocket outdoors, in an open area at least as large as shown in [the accompanying table](#), and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.
10. Recovery System. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.
11. Recovery Safety. I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.

LAUNCH SITE DIMENSIONS		
Installed Total Impulse (N-sec)	Equivalent Motor Type	Minimum Site Dimensions (ft.)
0.00--1.25	1/4A, 1/2A	50
1.26--2.50	A	100
2.51--5.00	B	200
5.01--10.00	C	400
10.01--20.00	D	500
20.01--40.00	E	1,000
40.01--80.00	F	1,000
80.01--160.00	G	1,000
160.01--320.00	Two Gs	1,500

## 5. Flying Fields

<http://www.mn-rocketry.net/mrn/fields.htm>

OK, you have some model rockets. You're eager to fly them, but you don't know where to go? First, you need to know how big of a field that you'll need. The [NAR model rocketry safety code](#) gives recommended field sizes based upon the rocket motors that you plan to use.

Recommendations:

- Big, flat, without (major) trees, power lines, or other obstacles
- If it's windy, bigger is better.

Private property is preferred. Just make sure to get permission from the landowner beforehand! Public property such as parks, school athletic fields, etc are often quite convenient. Just make sure to check beforehand with the local park board, school office, or whatever. In some places, they may not permit model rockets on public land.

### **Flying sites recommended by Minnesota rocketeers:**

#### **White Bear Lake - Sunrise Park Middle School**

This field is a public park within the city of White Bear Lake, and it is immediately adjacent to a school. Model rocket flying is allowed at this park, but organized athletics have first call upon the fields.

This is a decent-sized flying field, but it's bordered on the south side by the large, flat, school roof and on the other three sides by residential areas. Use your best recovery-system judgement; high-flying rockets should use streamers. Please try to keep your rockets within the boundaries of the park. Size is OK for rockets with motors up through D. 2-stage rockets can be flown on calm days.

Directions: From I-694, take the White Bear Ave exit. Go north to the traffic light at Cedar and take a right. Drive east on Cedar and take a left at the second stop sign onto Cranbrook. This will take you along the west side of the park. Park in the school lot or in an orderly fashion along the street.

### ***Geocaching***

Geocaching is a high-tech scavenger hunt that's great to do during camping or a hike (you'll probably want to accomplish other things during the hike). To have a geocaching activity, you'll need a couple of things. First and most importantly, you'll need a Global Positioning System or GPS device. A GPS, if you don't know, is an electronic device that picks up signals sent by satellites to determine your exact location to within 3 yards. Second, you'll need is a membership to [geocaching.org](http://geocaching.org). This website has record of all registered caches in North America. Finally, you'll want to bring is a small trinket that identifies you, that you'll trade for an item that's already in the cache. You should not leave perishable items in the cache.

An entry level hiking GPS costs somewhere in the \$90 price range. These GPS's are very basic and you'll probably expect to have to enter the coordinates manually. A nice one will run around \$300 - \$500 dollars but will have many more nice features. I have a Garmin Oregon 200 which I upgraded to a 400 with flash memory card and software. So far it's been very rugged and the user interface is awesome!

Information found at the [www.geocaching.com](http://www.geocaching.com) website includes: The location of the cache, information about the terrain where the cache is hidden, what type of cache it is (the micro-cache, small cache, multi-cache, virtual cache and webcam cache), a cipher clue if you get stuck, and feedback from people who either found or didn't find the cache. If you own certain brands of GPS's (Garmin), you can download this information right into you GPS instead of entering it manually.



A cache is usually put in a, durable, waterproof container. Items contained in the cache usually include: a log book where people who find the cache write their names, a pencil or pen and trinkets that other people have made a trade with the original items that were placed in the cache.

Geocaching is a fun outdoor activity that just about anyone can do. There are many caches in our area. The Minnesota State Park system has advertised geocaches on their website and in their brochures. I even notice that at the North Star Council Boy Scout camps this summer, they've added this as an approved activity (electronics at a Boy Scout camp!)

### ***Pinewood Derby***

<http://www.northernstarbsa.org/Forms/Activities/PinewoodDerbyRules.pdf>



### **2011 Pinewood Derby Rules**

#### **Body:**

The main body structure must be made of wood. Cars that were purchased completed may not be used. If the builder lacks the resources to cut out a car from a stock block of wood, attendance at a workshop(den/pack/district/council) is strongly encouraged. Alternately, a pre-shaped block may be purchased to be used with the stock BSA Wheels and Axles.

Cars must be tuned or aligned by the racer, adult supervision is encouraged. Cars may not be sent to third party facilities for tuning or other performance enhancements.

#### **Car Specs:**

- a. **Width** - Not to exceed 2 3/4 inches
- b. **Length** - Not to exceed 7 inches
- c. **Weight** - Not to exceed 5.0 ounces on scale accurate to 1/10 ounce.
- d. **Height** - Not to exceed 3 inches
- e. **Center Rail Width Clearance** – Must clear center guide rails, typically no less than 1-3/4 inches minimum.
- f. **Bottom Clearance** - No less than 3/8 inches from track surface. Fender flairs with less clearance are acceptable as long as the center rail width clearance is the same in rule E. Weights are preferred to be inset in the body or on top of the car to aid in a safe stop at the end of the track.
- g. **Wheelbase** –All cars must have a wheel base no less than 4", with the two rear wheels being positioned directly across the body from one another and the two front wheels being positioned directly across the body from one another.
- h. **Front End** – Depending upon the track, the front of the car may rest against a short starting pin. We therefore require that the front bottom of the car which rests on the pin is no higher than 1" above the track. The front end must be at least 1/2 inches wide in the middle. No part of the car can extend beyond the starting pin.

The car design may be enhanced by the addition of other stable materials such as plastic or metal. Any additions must be firmly attached and meet Car Size Requirements.

No part of the car body, wheels or attachments may protrude in front of the starting peg.

The following items are PROHIBITED:

- a. Springs
- b. Starting devices or propellants
- c. Electronic or lighting devices that interfere with the race electronics.
- d. Liquids, wet paint, oil, sticky substance, or powders of any kind (other than axle lubrication)
- e. Glass or excessively fragile parts
- f. Bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.

- g. Loose objects on car
- h. Magnets
- i. No part of any car, or attachment to any car, that is metal, pointed, sharp, and/or jagged may be capable of contacting any part of the track.

#### **WHEELS:**

- a. Use only Official Scout Grand Prix wheels. All lettering, both inside and outside, must remain and be visible. The fluting and other BSA markings on the outside wheel area must remain visible. Outer wheel surface may be lightly sanded, shaved, or polished to remove surface imperfections and mold casting burrs, but must not be reshaped in any way in an attempt to lighten the wheel, minimize tread contact or alter aerodynamics. Tread surface must be flat and parallel to the wheel bore. Coning the hubs and truing the inside edge is allowed. Tread width may not be less than 7.5 mm. You may add material to the inside of the wheel to aid in balancing (glue, fingernail polish, tape) of the wheel, but no material may be removed.
- b. Wheel Bore treatment is allowed including polishing and/or tapping. Wheel bores may not be filled and re-drilled to alter bore diameter or to achieve better fit with the axle.

The following wheel modifications are PROHIBITED:

- a. Rounding of wheel edges
- b. Grooving, H-cutting or V-cutting
- c. Altering of wheel profile
- d. Narrowing the tread surface
- e. Drilling sidewalls
- f. Hollowing, sanding, or otherwise removing or modifying material from inside the wheel
- g. Filling of any wheel surface with any type of material
- h. There must be at least four wheels on the car, however, it is not required that all four wheels make contact with the track surface.

Each wheel must be mounted on an axle, on the outside of the car, in the vertical position. Each wheel must be attached directly to the car by an axle and spin freely. No part of the wheel may overlap the center guide rail by more than 1/8 inch.

The two rear wheels and the two front wheels must be positioned directly across the body from each another. Staggered wheelbases are not allowed.

Please note: There are aftermarket modified wheels that are LIGHTENED. This is usually done by turning the wheels on a

lathe and removing material from the inside of the wheel. These wheels are NOT allowed and EASILY RECOGNIZED at inspection. Cars with these wheels will not be permitted to race.

No part of the car nor any attachment to the car may be capable of coming into contact with the track other than the wheel(s).

#### **AXLES:**

BSA Nail type axles are required with an overall diameter of no less than .084 inches for each wheel. Some polishing and/or modification is allowed as long as overall diameter is not reduced below .084 requirement.

Grooves are allowed, the depth of the groove(s) is not limited so long as the journal portion of the axle (the part the wheel rides on) is no less than the stated minimum diameter.

Axles must not be connected to any device that mechanically alters rotation and spin.

Axles must be mounted into the wood sections of car. Drilled holes or slots can be used.

Over-application of lubricant which results in excessive shedding onto the track is not allowed.

Approved lubricants include (but are not limited to) graphite, Teflon, Nyloil, and Krytox.

#### **INSPECTION:**

Each car must pass inspection by the Official Inspection Committee before it may compete. The Inspectors will disqualify any car not meeting these rules. Any adult or scout may appeal the findings of the Inspectors to the Race Committee Chairperson, whose decision is final. After acceptance only race officials will handle the cars.

Cars may be reclassified or disqualified if they are determined by the race officials to not meet these requirements.

#### **WEIGHTS:**

The drilling/removal of Lead (Pb) will NOT be allowed at the race venues or at check-in time due to the toxicity of the material. All Lead (Pb) must be completely sealed and safe from all possible contact with the youth. PLEASE avoid Lead (Pb) in cars this year!

**REPAIRS:**

Any car losing wheels or any part that prevents it from running cannot be repaired after the inspection and weigh in.

EXCEPTION: Race officials may authorize repairs when damage is caused by collision with another vehicle or object. The Cub Scout is in charge of making all car repairs. Guidance is allowed and encouraged. Ideally repairs can be done before the next heat that the car is in starts. After the car is repaired Officials will run the race again. If the car cannot be repaired before it's next race starts, that race will also be delayed until the end of the races.

**BEHAVIOR:**

GOOD SPORTSMANSHIP AND BEHAVIOR IS EXPECTED. Race Officials may ask anyone not following this rule to leave.

**QUESTIONS:**

Questions may be addressed to the Race Officials. The Council Race Officials may be contacted at



right side of car



top of car



left side of car



front of car



back of car

**Activities** – Story (Positive Attitude), Skit and Song

**Story**

**Positive attitude**

Gifted athletes don't necessarily make the best players. Often, a coach will keep them on the sideline because of their bad attitude. The coach knows a prima donna can bring down the whole team. Likewise, the best

teams are not always made up of the greatest athletes, but when they accept their role on the team and have a positive attitude about it, they can win. These players focus on the team and the greater good, not their own concerns.

Your child's attitude, whether good or bad, will determine how far he can go in life. Praise your child for his positive attitude above his good performance. Challenge him with the notion that one optimistic person can set the tone for the whole team.

### **Song (Don't Stop by Fleetwood Mac)**

Written by Christine McVie.

If you wake up and don't want to smile,  
If it takes just a little while,  
Open your eyes and look at the day,  
You'll see things in a different way.

Don't stop, thinking about tomorrow,  
Don't stop, it'll soon be here,  
It'll be, better than before,  
Yesterday's gone, yesterday's gone.

Why not think about times to come,  
And not about the things that you've done,  
If your life was bad to you,  
Just think what tomorrow will do.

Don't stop, thinking about tomorrow,  
Don't stop, it'll soon be here,  
It'll be, better than before,  
Yesterday's gone, yesterday's gone.

All I want is to see you smile,  
If it takes just a little while,  
I know you don't believe that it's true,  
I never meant any harm to you.

Don't stop, thinking about tomorrow,  
Don't stop, it'll soon be here,  
It'll be, better than before,  
Yesterday's gone, yesterday's gone.

Don't you look back,  
Don't you look back.

### **Hiking Song**

**Up to Eagle Song (Sung to the tune of Back to Gilwell) – by Peter McCloy and Trent Doering (with help from Kasey McCloy and Tyler Doering)**

**(sung to the tune of "Back to Gilwell" or the Wood Badge song)**

Now I am a Webelos, and a good old Webelos too,  
But now I've finished Webelos-ing, I don't know what to do,  
I'm growing so much older, and I can Webelos no more.  
So, I'm going to work to Scout if I can.

Up to Eagle, that's my plan, I'm going to work to Scout If I can.

I used to be a Scout, and a good old Scout too,  
But now I've finished Scouting, I don't know what to do,  
I'm growing so much older, and I can Scout no more.  
So, I'm going to work to Tenderfoot if I can.

Up to Eagle, that's my plan, I'm going to work to Tenderfoot If I can.

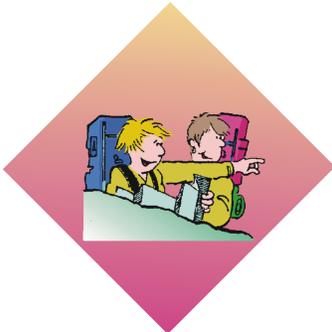
I used to be a Tenderfoot  
I used to be a Second Class...  
I used to be a First Class...  
I used to be a Star Scout...  
I used to be a Life Scout...

And now I am an Eagle, a good old Eagle too,  
I'll never be finished Eagling, but I know what to do,  
I'll continue being Trustworthy, Loyal and Helpful too,  
So, I'll always be Eagle as a man.

## Discussion

### Having Positive Attitude during Scouting Activities

<http://rt492.org/gen/chardev.html>

<p><b>Hikes</b></p>		<p>Have fun even when it is hard to do. If possible, plan a hike that is challenging (lengthy or difficult terrain). Have boys explore how to make this a good experience with positive attitudes.</p>
<p><b>Nature Activities</b></p>		<p>Visit a herpetologist or entomologist to talk about how insects and snakes contribute to world ecology. Relate this to having a positive attitude about everyone's place in the world.</p>

<b>Service Projects</b>	 A blue silhouette of a person sitting in a wheelchair, centered within a diamond-shaped background that has a vertical gradient from light yellow at the top to dark pink at the bottom.	<p>Make cheery cards for others. Mail these to an “adopted” elderly or shut-in person on a regular basis. Look for opportunities to serve friends or family members who are having a tough time.</p>
<b>Games &amp; Sports</b>	 A photograph of several soccer balls on a grassy field, centered within a diamond-shaped background that has a vertical gradient from light yellow at the top to dark pink at the bottom.	<p>Bowling and golf are good games that bring the importance of positive attitude to mind. Design a game where boys have to turn don'ts and can'ts into do's and can's. Always have a good attitude, whether you win or lose.</p>
<b>Ceremonies</b>	 A cartoon illustration of a boy scout in a blue uniform and yellow hat, making a peace sign, centered within a diamond-shaped background that has a vertical gradient from light yellow at the top to dark pink at the bottom.	<p>Discuss the positive attitude shown by the recipient of a public recognition, especially when it is for advancement.</p>
<b>Campfires</b>	 A colorful illustration of a campfire with bright orange and yellow flames, centered within a diamond-shaped background that has a vertical gradient from light yellow at the top to dark pink at the bottom.	<p>Use a story about positive attitude. Talk about why we applaud and join in when others are performing. Discuss why it's important not to grumble or complain about your part in a skit or ceremony.</p>

<p><b>Den Trips</b></p>		<p>Visit with someone who has overcome an adverse situation through positive attitudes. Thank others who show a positive attitude when they have to wait in line, or take second choice on something.</p>
<p><b>Pack Overnighter</b></p>		<p>Present boys with obstacles to overcome in order for overnighter to happen (can't get campground we wanted; rain forecast for that weekend; not enough tents or sleeping bags, etc.). Guide them to a resolution, emphasizing a positive attitude.</p>

**Take a look at den meeting plans for January.**

**Tiger** – 9. How Do You Celebrate? and Making Decorations. Elective 1 and Elective 2. 10. Go See It: Making Change and Banking Do: Elective 13, Elective50.

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Tiger/TigerMeeting9.pdf>

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Tiger/TigerMeeting10.pdf>

**Wolf** – 9. Tools for Fixing and Building Do: Achievement 5a–e HA: Achievements 10 and 11, Elective 13c. 10. Birds Verify: Achievements 10 and 11 and Elective 13c, Do: Elective 13a–e; Achievement 10a–g, HA: Elective 13f.

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Wolf/WolfMeeting9.pdf>

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Wolf/WolfMeeting10.pdf>

**Bear** – 9. Building Muscles and Games, Games, Games! Verify: 11e, Do: Achievements 15b and 16a–c, HA: Achievement 13a–g (any four) 10. Saving Well, Spending Well and Games, Games, Games! Verify: Achievement 13a–g (any four), Do: Achievement 15a–c, HA: Achievement 6a.

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Bear/BearMeeting9.pdf>

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Bear/BearMeeting10.pdf>

**Webelos** – 9. Geologist Do: Geologist 1, 2, 8, HA: Review Geologist chapter. 10. Geologist Do: Geologist 4, 5, 6 HA: Review Engineer Chapter.

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Webelos/WebelosMeeting9.pdf>

<http://www.scouting.org/filestore/CubScoutMeetingGuide/Webelos/WebelosMeeting10.pdf>

**Arrow of Light** – 9. Readyman Verify: All Readyman, Do: Readyman 4–7, 8. 10. Arrow of Light Do: Arrow of Light make up and ceremony preparation, HA: Handyman 1. Review Handyman chapter.

<http://www.scouting.org/filestore/CubScoutMeetingGuide/ArrowofLight/ArrowofLightMeeting9.pdf>

<http://www.scouting.org/filestore/CubScoutMeetingGuide/ArrowofLight/ArrowofLightMeeting10.pdf>

**Announcements** – Trainings (Many Waters District Training Before Roundtable.)  
Many Waters District Pre-Roundtable Trainings:

February 3<sup>rd</sup> – Leader Specific

March 3<sup>rd</sup> – Youth Protection

April 7<sup>th</sup> – Cub Scout New Leader Training

May 5<sup>th</sup> – Leader Specific

<http://manywaters.nsbsa.org/DistrictCommittees/Training/TrainingOverview.aspx>

Other Training Opportunities:

<http://training.nsbsa.org/Default.aspx>

Online Training

<https://myscouting.scouting.org>

Next month's roundtable topics: Letterboxing (Citizenship)