

# From Baloo's Bugle-Monthly Fun Stuff Feb 2017 (for March)

<http://usscouts.org/bbugle2016-2017.asp>



## THEME RELATED ADVENTURES

All Adventures are fun. –

## ADVENTURES THAT INVOLVE STEM:

<p><b>TIGER –</b></p> <ul style="list-style-type: none"> <li>✓ My Tiger Jungle,</li> <li>✓ Curiosity, Intrigue, &amp; Magical Mysteries,</li> <li>✓ Sky Is the Limit</li> </ul>	<p><b>WOLF –</b></p> <ul style="list-style-type: none"> <li>✓ Adventures in Coins,</li> <li>✓ Air of the Wolf,</li> <li>✓ Code of the Wolf,</li> <li>✓ Council Fire,</li> <li>✓ Digging in the Past,</li> <li>✓ Germs Alive,</li> <li>✓ Grow Something,</li> <li>✓ Motor Away</li> </ul>
<p><b>BEAR –</b></p> <ul style="list-style-type: none"> <li>✓ Baloo the Builder,</li> <li>✓ Forensics,</li> <li>✓ Fur, Feathers, &amp; Ferns,</li> <li>✓ Make It Move,</li> <li>✓ Robotics,</li> <li>✓ Super Science,</li> <li>✓ A World of Sound</li> </ul>	<p><b>WEBELOS / A of L –</b></p> <ul style="list-style-type: none"> <li>✓ Adventures in Science,</li> <li>✓ Build It,</li> <li>✓ Earth Rocks!,</li> <li>✓ Engineer,</li> <li>✓ Into the Wild,</li> <li>✓ Into the Woods</li> </ul>

**This is NOT all the STEM stuff** – lots more adventures/activities involve observation, comparison, what do you think you will see/hear. . .?, how? Scores/keeping track, fractions (cooking). Talk about more that is in the manual – make them think things through.

**Teach them to “fish” – don’t just provide the “fish” for the current activity to check off requirement. It is your program – you can substitute/modify.**

### March Theme from Baloo's Bugle is “Our National Treasures”

**Tiger** – family stories . . . , rolling tigers (req 7)-famous bicycle race/racer, sky is the limit(req 8) if where you visit is a national treasure)

**Wolf** -- Council fire, req 5-the person you talk to is a national treasure, duty to God req 1A-religion monument/site, hometown heroes (they are national treasures)

**Bear**-Paws for Action-req 1 – place of historical interest is a national treasure

**Webelo core/Arrow of Light** – none

**Webelo & AOL Elective** – Looking Back/Looking Forward re1 1 and Project Family (perhaps you will reveal a national treasure in your family)

**Special Opportunity-STEM AWARD** – 4 Nova Awards for Cubs-science, technology, engineering and math (science-1)watch a science show/read something (about 1 hour). Think of 2 questions and discuss 2 questions 2-complete one adventure (list above) 3) act like a scientist-explore why rockets have fins/cars have spoilers/does a local creek flow to Atlantic/Pacific 4)visit a science place 5)everyday applications

## March Fun – links in Baloo’s Bugle to info/activities – lots on loyalty (Buzzards are LOYAL!) and giving

### Month:

American Red Cross Month, Irish American Month, Music in Our Schools Month, National Craft Month, National Irish American Heritage Month, **National Nutrition Month**, National Peanut Month, National Women’s History Month, Red Cross Month, Adopt a Rescued Guinea Pig Month, Deaf History Month (3/13-4/15), Exotic Winter Fruit and Leeks and Green Onions Month, Honor Society Awareness Month, National Umbrella Month, National Multiple Sclerosis Education and Awareness Month, **National Kite Month (3/28-5/3)**, National Kidney Month, National Frozen Food Month, National Eye Donor Month, National Caffeine Awareness Month, **National Athletic Training Month**, Expanding Girl’s Horizons in Science and Engineering Month, **Optimism Month**, Poison Prevention Awareness Month, **Quinoa Month**, Save Your Vision Month, Sing With Your Child Month, Spiritual Wellness Month.

**Weeks:** 1<sup>st</sup> week-newspapers in our schools week, 2<sup>nd</sup> week-crochet week, 5-11: Celebrate Your name week, **National Procrastination Week**, Read and E-book week, return the borrowed books week, save your vision week, teen tech week; 6-10 National School Breakfast week, 7-13 No more week; 10-12 National rattlesnake roundup; 11-17 Turkey Vultures Return; 12-18 National Girl Scout Week, Campfire USA Birthday Week, National Agriculture week; 13-19 International Brain Awareness Week; **19-24 American Chocolate week**, Health Information Professionals week, World Folktales and Fables Week; **20-26 Act Happy Week**, 26-4/2 National Cleaning Week and **National Youth Violence Prevention Week** (renew your Youth Protection training)

### Days :

1-**Ash Wednesday**/National Pig Day/Peanut Butter Lovers’ Day/Share a Smile Day

2-Old Stuff Day/**Dr Suess’s Birthday & Read Across America Day**

3-**I Want You to Be Happy Day/If Pets Had Thumbs Day**/National Anthem Day/Peach Blossom Day/**Employee Appreciation Day**

4-Holy Experiment Day/Hug A GI Day

5-Multiple Personality Day

6-Dentists’ Day/National Frozen Food Day/**Oreo Cookies went on sale for the first time in 1912**

7-National Crown Roast of Pork Day

8-**Be Nasty Day**/International (Working) Women’s Day

9-Popcorn Lover’s Day/Panic Day

10-International Bagpipe Day/ Middle Name Pride Day

11-**Johnny Appleseed Day/ Worship of Tools Day**

12-Girls Scouts Day/Plant a Flower Day

13-Ear Muff Day/ Jewel Day/Buzzard’s Day

14-Learn about Butterflies Day/ National Potato Chip Day/ **National Pi Day (3/14 – the value of Pi)**

15-**Everything You Think is Wrong Day**/ Ides of March/Dumbstruck Day

16-**Incredible Kid Day/Everything You Do is Right Day**/ Freedom of Information Day

17-Corned Beef and Cabbage Day/Submarine Day/**Saint Patrick’s Day**

18-**Goddess of Fertility Day/Supreme Sacrifice Day**/National Quilting Day/**Johnny Appleseed Day**

19-Poultry Day

20-Proposal Day/**Earth Day**/ Extraterrestrial Abduction Day/ **1<sup>st</sup> day of Spring**

21-Credit Card Reduction Day/National Agriculture Day/Fragrance Day

22-**National Goof Off Day**

23-Melba Toast Day/National Chip and Dip Day/National Puppy Day/ Near Miss Day

24-National Chocolate Covered Raisin Day

25-Pecan Day/Waffle Day

26-National Spinach Day/Make Up Your Own Holiday Day

27-National “Joe” Day

28-Something on a Stick Day/ National Mom and Pop Business Owners Day/ Smoke and Mirrors Day/ National

Doctor’s Day/ **I am in Control Day**/ Take a Walk in the Park Day/ **Bunsen Burner Day**/ National Clam on the Half-Shell Day/pencil with an eraser patented in 1858

### Station 1 – Marshmallow Engineering

Build the tallest marshmallow/toothpick tower you can in 2 minutes -you have 2 minutes to plan – individual(gathering?) or group planning/execution –talk about structure design elements-show pics.

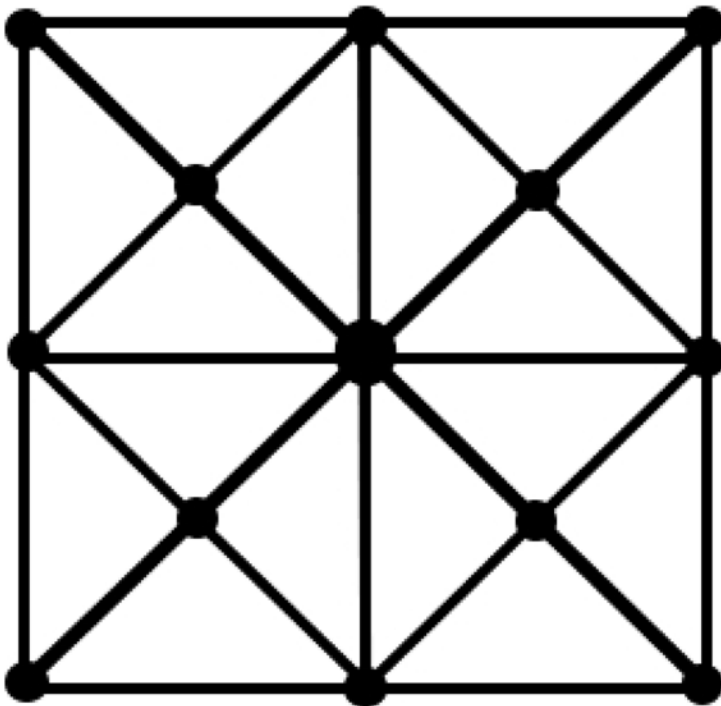
### Station 2 - Marshmallow Engineering #2

Build the strongest marshmallow/toothpick structure you can with 20 toothpicks/10 marshmallows – test the hold strength with the different objects (in den meeting add sets of toothpick/marshmallows to see if you can make it stronger)

-discussions of strength of different shapes (triangular/cylindrical are strong), placement, static load (does not change ie a bridge), dynamic load(changes-the cars on the bridge-wind pushing the bridge) – use pictures of buildings, bridges to illustrate

### Station 3 – Play Picaria – an American Indian strategy game that uses squares/triangles (how many triangles?/squares?)

#### How Many Triangles



#### Picaria – a Native American Game

Instructions:

1. Start with an empty board
2. Players should decide which color marker each will use and who will go first
3. Each player takes turns placing one marker on the board until all of the markers have been placed. They cannot place a marker in the very center intersection of the board during this phase of the game.
4. Next, players take turns moving one piece along a line to a different intersection on the board. During this phase of the game, they can move their markers to the center intersection.
5. Players win by getting all three markers in a row, either in a straight line or diagonally.

#### Station 4 – Play 11’s card game. (or 10 or 12)

- 1-shuffle the deck of cards. Deal 9 cards in a 3x3 square and place the rest face down for a draw pile. Aces=1. Face cards have no value and place fresh card on top.
  - 2-Look for combinations that add to 11 (or 10 or 12) -grab them and replace with new cards.
  - 3-continue till all cards are used. If there are not any cards that create 11 (or 10 or 12)take the 9 and shuffle them into the draw pile and lay down 9 new cards.
- Alternative – assign a value to the face cards and restart

#### Station 5 – Armpit Fudge – is it a solid or liquid?

##### Armpit Fudge

##### Ingredients:

Den Size	Single Serving
1 lb. Powdered sugar	1/2 cup powdered sugar
1 stick (1/4 cup) butter	1Tbsp butter
3 oz. Cream cheese	2 tsp cream cheese
½ tsp vanilla	dash vanilla
1/3 cup cocoa	2 tsp cocoa
1 gallon Ziploc	1 sandwich size Ziploc

##### Instructions:

- Put all ingredients in Ziploc baggie and Squeeze out all the air.  
Place baggie under the arm and squish until all the ingredients are well mixed and creamy. (You can use your hands too to mix the ingredients.)  
Snip a corner and squeeze onto a graham cracker or straight into your mouth.

#### Station 6- Acid/Base Color Science

##### What You Need:

- Frozen concentrated grape juice in a pitcher or other container
- Science Journal or lined paper to record steps and observations
- Pencil Crayons Water Vinegar A stirring spoon Soap
- Jars or glasses Baking soda Lemon juice

##### What You Do:

1. In advance, thaw the frozen grape juice and mix it with an equal amount of water in a pitcher.
2. Give her some grape juice in two jars or glasses. Explain that she will be experimenting to see if she can make the purple grape juice change color. It will look like a magic trick, but it's really a chemical reaction: a change that takes place when certain substances come into contact with one another.
3. Have her pour a little lemon juice into one of the glasses filled with grape juice. In her Science Journal or on the sheet of paper, help her record what she mixed together (grape juice and lemon juice) and then have her record what happened. Have her draw a picture of what she saw.
4. Explain to her that the lemon juice is an acid. All acids will turn a blue liquid or indicator, red. Tell her that the grape juice is called an indicator because it will indicate (or tell) whether another liquid is an acid.
5. Next, add two spoons of baking soda to the second glass or jar of grape juice. Again, have her record what she mixed together as well as the results. This time the grape juice should turn green.
6. Explain to her that the baking soda is the opposite of an acid. It is what is known as a base. A base will change the color of an indicator from blue to green.
7. Now, see what happens if you add some baking soda to the red liquid (the grape juice and lemon juice). It should change back to purple—the indicator color for neutral. Ask her what she thinks would

happen if lemon juice was added to the green liquid? Make sure she doesn't drink the grape juice she's been experimenting with, or she will be in for a not-so-tasty treat!

Extension Activities:

1. Empty the two glasses of juice you and your child have been experimenting with and pour fresh grape juice into each one. Let her experiment with vinegar and soap (dish soap works fine) to determine which is an acid and which is a base, based on the color that each turns the grape juice. Continued experimentation will allow her to build on what she learned from the previous experiment with the lemon juice and baking soda.
2. Flowers called hydrangeas produce blue flowers when planted in *acidic* soil, but pink flowers when planted in a *basic* soil. Adding an acid or base to the soil can make the flowers change from one color to the other. If you have a hydrangea in your yard, try this experiment!

### Station 7- Dancing Raisins

Carbon dioxide gas dissolved in soft drinks gives them their fizz. You can use the carbon dioxide fizz from a soft drink to make raisins dance.

For this experiment you will need:

- a can of colorless soda (e.g., 7-Up or Sprite)
- a tall, clear glass or plastic cup
- several raisins (fresh raisins work the best)

Pour the can of soda into the tall glass. Notice the bubbles coming up from the bottom of the glass. The bubbles are carbon dioxide gas released from the liquid.

Drop 6 or 7 raisins into the glass. Watch the raisins for a few seconds. Describe what is happening to the raisins. Do they sink or float? Keep watching; what happens in the next several minutes?

Raisins are denser than the liquid in the soda, so initially they sink to the bottom of the glass. The carbonated soft drink releases carbon dioxide bubbles. When these bubbles stick to the rough surface of a raisin, the raisin is lifted because of the increase in buoyancy. When the raisin reaches the surface, the bubbles pop, and the carbon dioxide gas escapes into the air. This causes the raisin to lose buoyancy and sink. This rising and sinking of the raisins continues until most of the carbon dioxide has escaped, and the soda goes flat. Furthermore, with time the raisin gets soggy and becomes too heavy to rise to the surface.

You might want to try other objects to see if they exhibit this behavior. Any object whose density is just slightly greater than water's and has a rough surface to which the gas bubbles can attach should be able to dance in the carbonated water. Some of the more common dancing substances are mothballs and pieces of uncooked pasta. Try putting other objects in the carbonated water. Can you find other substances that dance?

Carbonated beverages are prepared by putting the beverage into a can under high pressure of carbon dioxide gas. This high pressure causes the carbon dioxide gas to dissolve in the liquid. When you open a can of soda, the noise you hear is produced by the carbon dioxide gas as it rushes out of the can. When the can is opened, the decreased pressure allows some of the carbon dioxide gas dissolved in the liquid to escape. This is what makes the bubbles in a soft drink.

Another way to do this experiment is to generate the carbon dioxide gas using the reaction of baking soda and vinegar. Fill your glass about 1/2 full with water. Add one teaspoon of baking soda and stir until it is dissolved in the water. Add 6 or 7 raisins to the glass. SLOWLY pour in vinegar until the glass is about 3/4 full. The vinegar and baking soda react to form carbon dioxide bubbles, and the raisins will dance just as in the soft drink!

### **Station 8 – Hug A Tree Tracks – Shoe Casting**

Using several layers of foil on a soft surface like a rug or towel press your hiking boot or shoe down.

Make Sure there is a “Cast” of the size and pattern of the bottom of your shoe

Write the name on the casting with a permanent marker

Display

Hug-A-Tree is a great program developed by Search and Rescue members specifically to help children know what to do if they become lost. It would make a great pack activity with 8 stations – see Baloo’s Bugle, October 2016 about page 18-20

### **Station 9 - M & M Math**

Estimating and fractions – complete the worksheet (lots of M & M math things – just Google)

### **Station 10 – The Money I Have Who Has Game (google the name for printouts)**

Distribute the cards among the participants.

The person with the “Start” card reads both the “I have...” and “Who Has...?” parts aloud. The next person that has the card that matches the “Who has?” description that was read aloud will read their “I have...” and “Who has...?” parts. The game is played until all cards have been read.

Can be played by a group or as an individual player game.

### **Station 11 - Science Scavenger Hunt**

How good is your power of observation. Can you find everything?

1-touch something solid

2-touch something liquid

3-touch something that is a gas

4-touch something connected to electricity

5-touch something soft

6-touch something hard

7-touch something light

8-touch something heavy

9-touch something red

10-touch something blue

11-touch something that stretches

12-touch something that does not stretch

13-touch something cold

14-touch something warm

15-touch something that makes noise

16-touch something smooth

17-touch something rough

18-touch something you can see through

19-touch something you can’t see through

20-let your seat touch your chair – fold your arms to show you have finished

### **Station 12 - Slap It! An Odds or Evens Card Game**

What you Need: a deck of cards and 2-8 players

What You Do:

1. The dealer shuffles the cards and then deals them out, face down, to each player in rotation, until all the cards have been passed out. (It doesn't matter if one player gets an extra card or two!) Players arrange their cards, without looking at them, into a neat pile in front of them.
2. The object of the game is to win as many cards as possible, by being the first to slap each odd number as it lands in the center.
3. Beginning with the dealer, each player lifts the top card off of his pile and places it face up in the center, making sure to turn up the card so it's facing away from him, so he doesn't see it any sooner than anyone else.
4. When the card put down is odd, the first player to slap his hand down on it takes it, as well as all the cards beneath it. The player winning these cards turns them face down, places them under his pile of cards, and shuffles his deck to form a new, larger pile. He then places the pile in front of him as before.
5. If more than one player slaps a card, the one whose hand is directly on top of it wins the pile. If a player slaps at any card in the center that is not odd, he must give one card, face down, to the player of that card. When a player runs out of cards, he stays in the game until the next odd card is turned. He can slap at that card in an effort to get a new pile. If he fails to win that next pile, he is out of the game.

Play continues until one player has won all the cards. That player is the winner!

**Station 13 – Hanging Around with Sound-Make Your Own Secret Bell! (Scientific American – a SUPER resource-check their education tab)**

**Key concepts**

Physics  
 Sound waves  
 Vibration  
 Hearing

**Introduction**

Have you ever tried making “walkie-talkies” using a long piece of string and two tin cans? If you have, you know that they work surprisingly well—at longer distances you can hear people better through the cans and string than you can through the air!

In this activity we're going to use the same concepts to build a personal bell, one that makes sounds that only you can hear!

**Background**

If you've ever been near a speaker with a loud bass (or heard a car drive by with the radio turned up), you may have experienced the “buzzing” feeling in your body caused by the loud noise. This isn't your imagination; the sounds we hear are actually vibrations traveling through the air—or through other materials, as we'll observe in this activity.

Most of the sounds we hear come to us through the air. When your friend calls your name, your friend's vocal chords cause vibrations in the air, which travel through it as a sound wave and arrive at your ears. Sound waves, however, can travel through other materials, too, and in fact many materials are much better than air at transmitting sound! You can experience this for yourself by gently tapping a metal fork or spoon against a countertop, and listening to the sound. Next, put your ear to the countertop and tap the counter again with the fork or spoon. The sound should be much louder, because the counter is better than air at transmitting the sound vibrations caused by the tapping!

The difference in how well a material can transmit sound is determined by the material's density, or how closely packed the molecules (that make up the material) are to one another. Imagine a row of dominoes. If the dominoes are far apart, one or two of them can fall over but the rest will remain standing. If the dominoes are close together, one domino falling over will bump into the next one, which will bump into the next one and the dominoes will fall down in a traveling wave. This is similar to how a sound wave travels; if the molecules are close to one another, they will bump into together more often

and the vibration will move through them more efficiently. Solid objects such as metal desks and even string have molecules that are packed together much more closely than are the molecules in air.

### **Materials**

String

One unpainted metal hanger

Scissors

Metal fork or spoon

An adult helper

### **Preparation**

- With the help of an adult, cut two lengths of string, each about two feet long.
- Tie one end of each string to a different corner of the base of the metal hanger. When you hold the hanger up by the strings, the hook part should be pointing toward the ground.

### **Procedure**

- Hold the hanger by the hook in one hand and use your other hand to tap the metal fork or spoon against the hanger. Notice the sound that it makes. *How long does the sound last? Would you describe it as “sharp” or “dull”? What other words would you use to describe the sound?*
- Gently place one corner of the hanger (where you tied one piece of string) to the small flap of skin just in front of your ear, closing off the ear canal. (You don't need to press hard!)
- Using the hand that isn't holding the hanger (or asking an adult to help you), gently tap the metal fork or spoon against the hanger again. Notice the sound this makes. *Is the sound different when the hanger is pressed against your ear compared with when you were holding it in the first step? How long does it last? What words would you use to describe this sound?*
- With the help of an adult, take one of the pieces of string tied to the hanger and wrap it around your index finger a few times. Wrap the other string around the index finger of your other hand.
- While you hold the hanger away from your body by the two strings, have your adult helper gently tap the hanger with a metal spoon or fork. Notice the sound this makes. *Is the sound different than in the earlier steps? How long does it last? How would you describe it?*
- Press your index fingers (with the hanger assembly attached) carefully on the small flaps of skin just in front of your ears, gently closing off the ear canals without putting your fingers into your ears. Allow the hanger assembly to swing freely from your fingers in front of your body, hook pointed toward the ground. Don't let the hanger or the string touch anything (except where the string is tied to your fingers).
- Have your adult helper gently tap the metal fork or spoon against the hanger. (Just tap once.) Notice the sound that this makes. *Is the sound different when the hanger is floating in the air compared with when you were holding it in your hands during the first two steps? How long does it last? What words would you use to describe the sound?*
- Gently swing the hanger so that it bangs lightly against something hard, such as the edge of a counter or table. Notice the sound that this makes. *Is the sound different when the hanger is pressed against your ear compared with when you were holding it in the first step? How long does it last? What words would you use to describe this sound? Do you notice anything about the strings after you bang the hanger against something? Are they moving? What type of movement?*
- Keeping your index fingers pressed on your ears, use your other fingers to grab the strings in your hands. Repeat the previous step, swinging the hanger into something hard. Notice the sound that this makes. *Is the sound different when you're holding the string in your hand compared with when it is hanging from your fingers?*
- **Extra:** With your index fingers still pressed against your ears, try banging the hanger against something hard, then grab the strings right in the middle of the sound. *How does holding the strings change the sound you hear?*



- **Extra:** Repeat the activity using another metal household item, such as a cooling rack, metal salad tongs or a butter knife. *How does the sound change with the different items?*

**Observations and results**

When the hanger was hanging freely from your fingers, did you notice that the sound produced by tapping against it had more *resonance* (a deep, full, vibrating quality of sound)? It should have sounded more like a bell or gong when it was hanging from the string compared with when you held it or pressed it against your ears and tapped it.

Why did you hear different things? As we discussed in the background, sound vibrations can travel more easily through some materials than others. When the hanger assembly was hanging freely in front of your body, tapping the hanger caused it to vibrate. These vibrations traveled up the string and into your fingers, then through them into your head. When you held the hanger away from you and tapped it, the vibrations traveled through air to get to your ears. From this activity you can tell that the string and your fingers are much better sound transmitters than the air around you!

When you were holding the hanger against your ear with your hand, the hanger couldn't vibrate as much (because you were holding it in your hand). Therefore, the sound was muted because fewer vibrations were produced. Holding the strings with your hands when you swung the hanger would have a similar affect. The strings couldn't vibrate as much, and therefore the sound waves were not transmitted as efficiently to your ears.