

LETTERBOXING

DESIGNED FOR GRADE LEVELS – 6 TO 8





CURRICULUM WRITTEN BY:

ED STEINHAUER

Teacher, Artist, Father of Three

Ed Steinhauer holds a BFA in printmaking from Washington University in St. Louis, and a Masters in Education from the College of St. Catherine. Ed has worked with elementary students in the classroom and out, teaching summer school, after school in and around St. Paul. He also a maker of prints, designing images focused on landscapes and children at play.

Ed once had an experience teaching in a nature-based preschool, which taught him the value of fostering open-ended connections with the outdoors in children. Since then, he has sought out opportunities to get kids outside and doing stuff. This class offers a compelling combination of art making and outdoor exploration.

Project coordinated by
Saint Paul Public Schools Community Education
in collaboration with St. Paul Sprockets Network

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COURSE NAME: LETTERBOXING

COURSE DESCRIPTION:

This course combines orienteering, printmaking, storytelling, and treasure hunting. Participants will learn how to use a compass, measure distances with a pacing chart, and carve a simple printing block for use in a letterbox stamp. We will find a local letterbox “cache” make our own weatherproof case, and write directions for finding the cache.

ADDITIONAL PROGRAM RESOURCES:

See attached document: “Materials and Advanced Preparation”

MN STATE STANDARDS ADDRESSED:

- 6-8.7.2.2 WRITE EXPLANATORY TEXT, INCLUDING THE USE OF GRAPHICS AND MULTIMEDIA, USING PRECISE LANGUAGE.
- 6-8.7.3.3 WRITE NARRATIVE AND CREATIVE TEXTS TO DEVELOP REAL EXPERIENCES USING EFFECTIVE TECHNIQUE, ESP. LANGUAGE TO CONVEY SEQUENCE.
- 6.3.2.2 UNDERSTAND AND USE RELATIONSHIPS BETWEEN ANGLES
- 7.3.2.3 USE PROPORTIONS AND RATIOS TO SOLVE PROBLEMS OF SCALE.
- 6.1.2.5.1 DEMONSTRATE THE CHARACTERISTICS OF TOOLS, MATERIALS AND TECHNIQUES OF VARIOUS...MEDIA FOR INTENTIONAL EFFECTS IN ORIGINAL ARTWORKS.

PROGRAM QUALITY – YOUTH PROGRAM QUALITY ASSESSMENT (YPQA)

St. Paul Public Schools Community Education identifies quality programming as: safe, supportive, interactive and engaging. Simple, specific examples of program-design related goals are below.

Safe Environment (Physical and Psychological)

- Be on time
- Choose healthy foods
- Choose appropriate activities for your space
- Choose age-appropriate & inclusive resources (music, images, etc.)
- Maintain school-day norms (no running, respectful of space)
- Manage classroom behavior for the safety of all
- Follow safety procedures and be prepared for emergencies

Supportive Environment

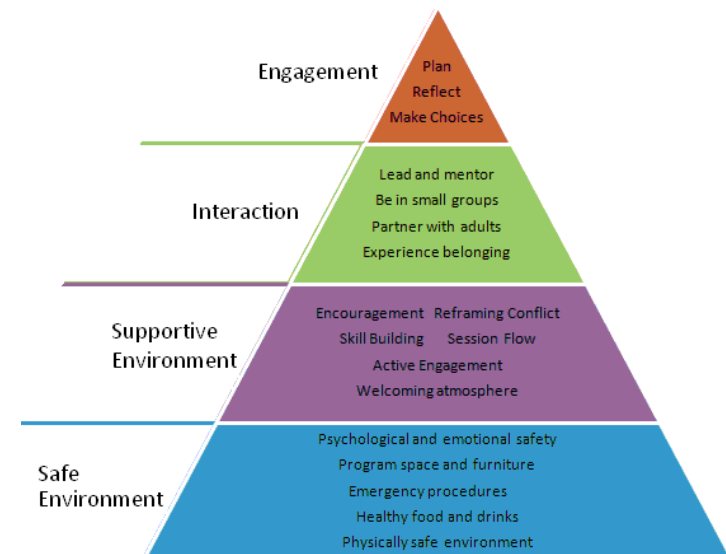
- Be inclusive of different learning styles, cultures, abilities and family structures. Utilize diverse images, games, music, etc.
- Choose encouraging words and develop an encouraging learning environment
- Maintain a professional appearance and wear staff identification
- Use group work, partnering, and aid in building relationships

Interaction

- Youth partner with each other and adults
- Regardless of age - have high expectations for all participants
- Encourage youth choice and self-directed learning opportunities
- Develop a learning environment where youth experience belonging
- Be prepared so you have time for youth choice and adult/youth interaction

Engagement

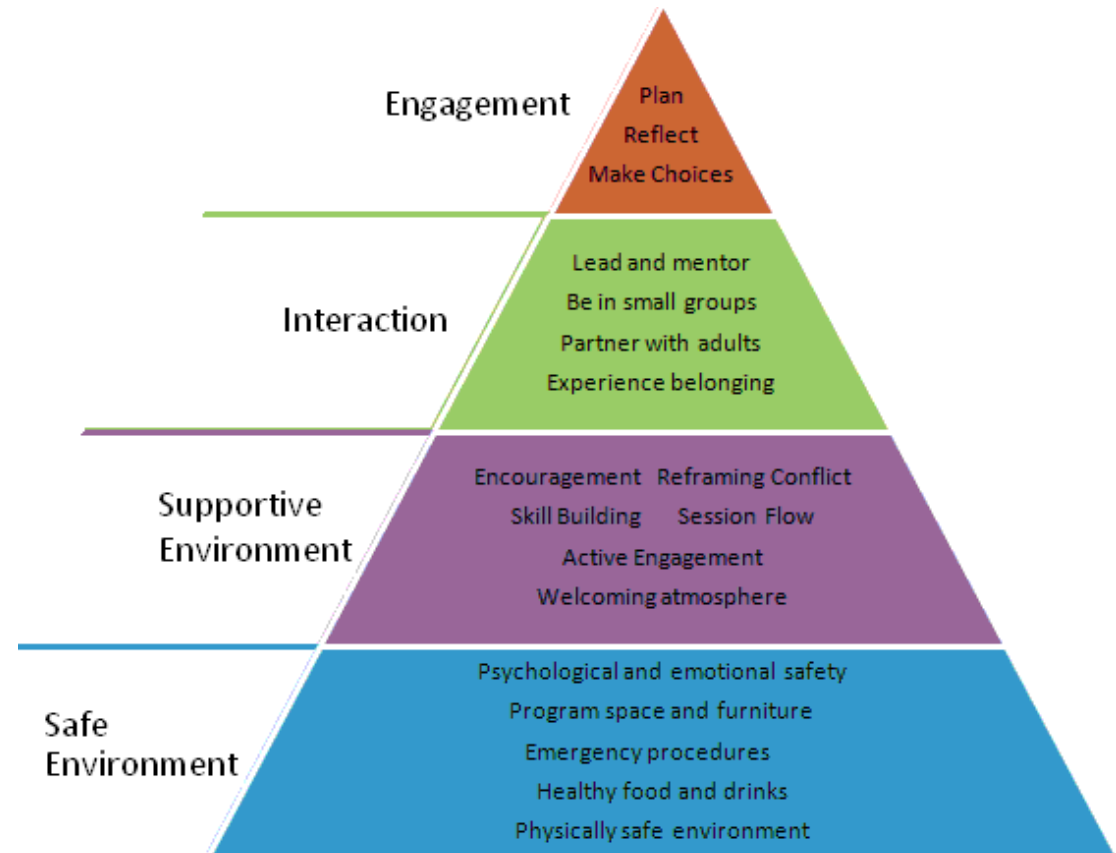
- Activities are hands-on and encourage multiple types of learning
- Include and facilitate youth choice
- Activities are challenging
- Reflection – all classes end with a reflection question and discussion time



PROGRAM QUALITY – INTENTIONAL INCLUSIVITY

Instructors are expected to **intentionally create inclusive environments**. Examples include:

- Use images/books/music, etc that is diverse across age, gender, ability, race, culture, nationality, sexual orientation, etc.
Example: if you are leading a session on the Winter Olympics include athletes/sports from the Paralympics and Special Olympics, athletes from multiple countries, etc.
- Religious holidays are not neutral and should only be used as a relevant instructional tool.
Example: Learning about Dia de los Muertos as a cultural celebration in Spanish class is a relevant instructional tool. Making Christmas ornaments in an art class or doing an Easter egg hunt in dance class are not relevant instruction.
- Use inclusive language when talking about families.
Example: Say “bring this home and show it to someone you love” or “share this with your family” rather than saying, “bring this home to your mom and dad.”
Do not make assumptions about family structure.
- Create learning opportunities that draw on multiple learning styles.
- Create flexible plans to find time to draw on the unique passions and abilities of your group of youth.



CURRICULUM QUALITY – WHAT IS GANAG?

GANAG refers to a teaching schema where “a instructor using the ‘Teaching Schema for Master Learners’ designs lesson deliberately so as to prepare participants for learning, help them connect new information prior to learning, and cement those ideas or skills. When the schema is used regularly for planning, it becomes automatic to think about teaching to the master learner” (Pollock 64). Concepts and ideas presented in the following table are extracted from Jane Pollock’s text, *Improving participant Learning One Instructor at a Time*.

<p style="text-align: center;">G Set the Goal/Benchmark/Objective</p>	<p>Instructor (and/or youth) identifies goals/benchmarks for a lesson along with specific daily content objectives. At the end of the day’s session, the instructor and participants can evaluate if they have accomplished their goals and whether to move on or perhaps re-visit concepts if needed.</p>
<p style="text-align: center;">A Access Prior Knowledge</p>	<p>The goal is to provide stimulus that relates in some way to the session content. The instructor plans an activity, question or demonstration to spur connections to previous learning, life experience or knowledge of subject matter.</p>
<p style="text-align: center;">N Acquire New Information</p>	<p>Present new information to youth through a variety of activities – ideally connecting to their senses (i.e. hearing a presentation or a lecture, seeing a video, hands-on cooking, etc.). Additionally, sessions include a combination of declarative and procedural content. Declarative = facts & information. Procedural = skills & processes.</p>
<p style="text-align: center;">A Apply Knowledge</p>	<p>Knowledge gains meaning if you can apply it again in a reliable and accurate way. Youth need hands-on opportunities to explore, test, challenge, and apply content.</p>
<p style="text-align: center;">G Generalize or Summarize</p>	<p>A reflective exit activity that demonstrates youth understanding is essential in providing teaching for mastery learning. Reflection allows youth the time to synthesize their experience/learning within the context of the group. Additionally, this element provides instructors with insight on participant learning and guidance on pacing future sessions.</p>

SESSION LAYOUT – SCOPE AND SEQUENCE

<p>Theme 1 Treasure hunt!</p>	<p>Session 1: DIY treasure hunt! Participants hide a “treasure” in the building. In groups, design clues for other groups to find it.</p>	<p>Session 2: Introduction to letterboxing. Explore MN letterboxing site to look at existing clues. Compare and contrast techniques used to direct seekers. Make a booklet to receive stamps for the rest of the week.</p>	<p>Session 3: Your trail identity. Participants design small stamp, which is cut into rubber eraser, inked, and printed. Plan to visit a location to hunt for letterbox.</p>	<p>Session 4: Prepare for the Hunt! Participants complete any incomplete work in compiling their letterbox kit. They investigate the Leave No Trace guidelines for engaging with the outdoors.</p>
<p>Theme 2 Wilderness exploration</p>	<p>Session 5: Let’s go letterboxing! Participants take a field trip to a place where we are likely to find a letterbox cache.</p>	<p>Session 6: Nature hike. In groups, participants explore nearby park, noting special features, hiding places.</p>	<p>Session 7: Orienteering. Participants learn and practice using a compass. They use compass directions to follow a closed loop.</p>	<p>Session 8 Set the Pace! Comparing their pace to a set distance, participants make a pacing chart.</p>
<p>Theme 3 Design and define your treasure.</p>	<p>Session 9: Treasure Hunt part 2. Groups re-hide their session 1 treasures outdoors. They write clues for other groups to find it.</p>	<p>Session 10: Block carving basics. Demonstrate relief printing and cutting. Participants learn and practice the techniques of printing.</p>	<p>Session 11: Block carving part 2. Participants make a design in collaboration with a group that will be left in a cache or letterbox.</p>	<p>Session 12: Containing your cache: Demonstrate waterproofing, camouflaging containers. Participants make their containers.</p>
<p>Theme 4 Hide and hint!</p>	<p>Session 13: Build a better booklet! Demonstrate materials, techniques for binding log book that will remain in cache.</p>	<p>Session 14: Review treasure hunt clues from session 2. Participants begin to scout out locations to hide their cache.</p>	<p>Session 15: Finding Flora & Fauna. Using hands-on materials, participants examine samples of local plants, trees, rocks and compare them to items listed on a hiking checklist.</p>	<p>Session 16: Test and revise. Participants test each others’ directions. Assist, review, and revise directions.</p>
<p>Theme 5 Perform, Teach, Share</p>	<p>Session 17: Finish revisions. Participants apply feedback from session 16 and continue testing other groups’ clues.</p>	<p>Session 18: Participants put finishing touches on clues and cache. Load clues onto letterboxing website.</p>	<p>Supplementary Session 1: Compass games. Participants practice their newly learned orienteering skills by trying their hand at these activities.</p>	<p>Supplementary Session 2: Field trip. Find another letterbox stamp for our collection.</p>

FACILITATOR NOTES: ADVANCED PREPARATION FOR EACH SESSION

Note: for many sessions there is advanced preparation required on the part of the instructor. Read thoroughly. Sessions involving field trips will require long-term advanced planning.

Session	Activity	Suggested resource
1	Hide one or more treasure coins in the building or room where you meet. Print clues that you will hand out to small groups of participants to find what you have hidden. Refer to instructions for Session 1.	
2	Bookmark letterboxing websites. You may wish to generate an account for your group; one that you can access later in order to post the box(es) that you create. Decide which of the myriad options you would like participants to use to make their own Log book (or simply buy them). A link to directions for a complicated but beautiful design for a codex binding is at right.	LbNA site: www.letterboxing.org Atlast Quest: www.atlasquest.com Book making instructions: http://www.atlasquest.com/tutorials/logbooks/
3	Gather materials for making letterbox “kits”: log book, watertight jars, stamp block, mini-stamp, ink pads, Ziplock bags. Ask your friends to set aside plastic screw-top containers, such as: peanut butter or mayonnaise jars.	Jars: Rubbermade containers (see LbNA site for details), reused watertight jars
3	Instructions for making an eraser stamp, courtesy of Der Mad Stamper, can be found at right. Make a stamp to serve as an example for students. There are commercial products that offer ready-made, self-adhesive shapes.	http://www.mitchklink.com/letterboxing/carving.htm http://www.letterboxing.org/kids/kidstamp.htm http://www.letterboxing.org/kids/foamstmp.htm
4	Scout out a letterbox near your area. Use the LbNA or Atlas Quest website. Plan to take the group to hunt one of the letterboxes that you print out! Arrange with families to meet at that location or order a field trip bus on Supplemental Session #1	www.letterboxing.org Click the picture of the big book for the map to search for clues. www.atlasquest.com Search by location and zip code.
5	Note: This activity could be done with a letterbox cache that has already been planted, or it could be one that you have planted yourself on the grounds where your group is meeting. Either way, this will require you to do the advance work to make sure that a letterbox does exist in the place where participants are searching.	www.letterboxing.org Click the picture of the big book for the map to search for clues. www.atlasquest.com Search by location and zip code.

6	<p>This is the first of several sessions in which you will be outdoors. Hopefully the location where you have been meeting is near an open area where there is a variety of natural features, such as wooded areas, rocks, and tall grasses. Check ahead of time to see if there are trail maps that will help orient your participants, and to help you to identify features on the grounds.</p> <p>Depending on where your group meets, there may be limitations on where you are allowed to plant your cache. There may be sensitive vegetation or nesting sites. Contact information for the different regional entities is at right.</p>	<p>City of St. Paul Department of Parks permitting office: 651-632-5111 Ramsey County Parks and Recreation 651-748-2500 Lebanon Hills (Dakota County) 651-554-6530/ 6538</p>
7	<p>Online lesson on use of compass found at address at right.</p>	<p>http://www.learn-orienteeing.org/old/lesson1.html www.rei.com has useful articles. Try “How to choose a compass”</p>
8	<p>Create a stride ruler. On a sidewalk close to your meeting place, mark a starting spot. Continue marking ten foot lengths, all the way to 100 feet (if space is tight, measure 50 feet and have students walk there and back).</p>	<p>Ruler and sidewalk chalk.</p>
10	<p>Create a sample block print ahead of time, using the materials you intend students to use.</p>	<p>Attached sheet “Printing from a Block.” Vendors to shop from include: Dick Blick materials (online or local stores in Twin City metro), Wet Paint in St. Paul, Michaels stores.</p>
11	<p>Determine the number of caches that can feasibly be placed on the grounds where your group is working. Most park authorities already have guidelines about geocaches, and how far apart they should be spread. Depending on the size of your group, you probably don’t want fewer than three groups.</p>	<p>See contacts listed for Day 5.</p>
12	<p>Review articles at right, printing out materials as you feel is necessary. You may choose to try the commercially available products described at right, or have students bring in used containers such as peanut butter and mayonnaise jars. Also, see document “letterbox labels” and have them printed on the correct labels (you may also just print them up on regular paper and use the mailing tape to secure them to your letterbox.</p>	<p>http://www.letterboxing.org/GettingStarted/Letterboxing101.pdf http://www.letterboxing.org/GettingStarted/getst_05.htm</p>
13	<p>Choose two to three options for making a log book for the letterbox cache. Again, the codex book is described following the link at right</p>	<p>http://www.letterboxing.org/GettingStarted/getst_04.htm#Notebook http://www.atlasquest.com/tutorials/logbooks/</p>
14	<p>Print out clues from Atlas Quest or the LbNA sites (see session 4). Print out more clues as necessary. The purpose of this session is to consider ways to write the clues, so look for ones that are written in a compelling way.</p>	<p>www.letterboxing.org Click the picture of the big book for the map to search for clues. www.atlasquest.com Search by location and zip code.</p>

15	<p>If you have any field guides in your collection, you may wish to consider bringing them in. The books listed at right are in the collection of the Saint Paul Public Library. The Minnesota DNR has a host of outdoor learning activities called Project Learning tree. Search for MN DNR PLT, or click http://www.dnr.state.mn.us/plt/activityguide.html.</p> <p>Handy printable animal tracking sheets are at: http://files.dnr.state.mn.us/education_safety/education/project_wild/animal-tracks.pdf</p>	<p>Tekiela, Stan, <u>Trees of Minnesota: a Field Guide</u> Ojakangas, Richard. <u>Roadside Geology of Minnesota.</u> Schwarz, George Melvin. Schwarz, George Melvin. <u>Guide to Minerals and Rocks of Minnesota.</u></p>
18	<p>Prepare to either post your letterbox clues online (use your login that you created on Session 2), or make them available through the appropriate institution where your cache(s) are located. Through your contacts with that organization, identify a contact person for the classroom or other group that would require access to clues. Use the cards at the end of the lesson to printout for each participant to use. It would be better to print them on a heavier stock of paper, if possible.</p> <p>For groups that wish to distribute locally, arrange to distribute the clues to the letterbox in exchange for invitations that guests (invitees) provide. Restricting distribution in this manner will minimize the traffic to their locations, and will ensure that those who are able to find it understand the responsibilities of the care and maintenance of the cache.</p>	<p>www.letterboxing.org www.atlasquest.com For the paper invitations, see the form at the end of the description for Session 18.</p>
Supp. #1	<p>A number of compass activities. Two activities requiring basic knowledge of the sixteen points on the compass are listed with this session's directions. In advance, mark one direction on each of sixteen index cards. You may wish to separate the cardinal (NESW) directions, the secondary (NE, SE, SW, NW), and tertiary (NNE, ENE, ESE, SSE, SSW, WSW, WNW, NNW.) cards.</p> <p>The more challenging orienteering activity (link at right) involves more prior setup, including staking nine marked stakes in the ground, fifty feet of string, and cut-up "route cards", each of which contains a set of five compass bearings for students to find.</p>	<p>http://www.boyscouttrail.com/content/activity/can_store_compass-1943.asp http://www.scoutorama.com/orienteer_game/</p>
Supp. #2	<p>See notes for Session 2</p>	

GLOSSARY OF ICE BREAKERS/WARM UPS

1. WARM/COOL/HOT

The group is gathered in a circle or at tables. The group chooses an object to act as a “treasure.” Volunteer 1 is chosen to leave the space, out of view of the room. Volunteer 2 in the room hides the treasure, while onlookers observe. V1 is invited back into the room. While V1 seeks out the treasure, the group assists with advice of “warmer, colder,” or “red hot!”, until the object is found. V1 switches with another volunteer, and the game repeats. *Outdoor Variation:* Create two teams. Each team chooses an object and displays it to the other team. Both teams hide their object within agreed-upon parameters. When both objects are hidden, gather everyone together. Choose a captain from each team to search for the other team’s object. Captains search, while the remaining participants direct them with “Warm, Cool, Hot”. The fun is in distinguishing between the cries of opposing teams!

2. MINGLE, MINGLE

This is a technique for getting a group familiar with one another and also for forming groups and cultivating a rapport. In a defined space, such as carpet or large, unobstructed area, participants walk randomly around, saying “mingle, mingle.” At a command, instructor shouts “freeze!” A number is called - participants form a group of that number. Repeat this two more times, taking care to seek out new people each time. Option: Each time a group forms, provide a question for youth to answer in pairs/groups. Examples: “What kind of toothpaste do you use?” or “If you could make a giant pie, what flavor would you make and how big would it be?”

3. TOWERS

Form groups of three. Give each trio a stack of index cards (these can be reused later). Task each group to make a tower of the index cards. They may fold them, but may not use any other material. Give the whole group a time limit. Use a yard stick or tape measure to measure, and see which group made the tallest tower.

4. TWO TRUTHS AND A LIE

Sitting in a circle, participants reflect on what two things they wish to share with the group, and consider a lie, about themselves. For example: I have two brothers, I was born on an island, and I have a dislocated elbow. The most innocuous “fact” is usually the lie! (I have two brothers). The group should guess which one is the lie.

5. SCULPTURES

An extension of “Mingle, Mingle.” When groups form, they are tasked with forming their bodies into a given shape. Example: the letter A, a teepee, a working bicycle. Repeat two more times, adjusting level of difficulty as participants ability suggests.

6. WHAT TREE AM I?

A sticky note is attached to each group member's back or forehead, with a species of tree written on it. Each person asks clarifying yes/no questions about itself, for example: do my leaves fall, do I make sap, etc. Members guess what tree they are.

7. RAIN STORM

An impromptu orchestra! An exercise in listening and collaborating, participants use snaps, claps, and stomps to approximate the sound of a summer storm. Invite participants to close their eyes and visualize a walk through the woods. Describe the wind in the trees. Rub hands together, slowly, then vigorously. Participants will follow suit. "A few drops of rain hit the leaves." Snap fingers at an irregular beat, until the chorus repeats the sound. "The rain subsides, and wind returns." Rub hands, then "fat drops fall, first slowly, then fast." Clap hands in irregular beat. Alternate sounds of snapping, clapping, then rub hands again. "The wind picks up and then subsides. There is a stillness in the air and it feels heavy. Suddenly," vigorously pat knees, then stomp feet. "The rain is coming down in sheets! You run home! You're soaking wet! By the time you make it home," resume snapping fingers, then wind. "The storm is over."

8. DEGREES

Group spreads out so that everyone is standing in a self space, arms length apart. Orient the group to face the same direction. Call out degree measures 90, 180, 270, and 360, and indicate "clockwise" or "counterclockwise." The group should move in tandem in the direction indicated. Participants who turn the wrong way or are facing the wrong direction will self-correct to match their peers.

9. 4 DIRECTIONS

Identify the cardinal directions in the room or space. If outdoors, set out four markers to indicate NSEW. Choose a caller, who stands in the middle. Players rush to one of the four directions while the caller counts to ten. Caller shouts out "North!" (or south, or...). Participants on that wall or marker are out. Caller resumes counting while remaining players move to another direction. Caller continues until one person remains.

10. WHICH IS BETTER?

A get-to-know you activity. Participants sit in a circle. The leader turns to person to (left or right), asks "Which is better, ninjas or pirates?" participant answers (hypothetically) "Ninjas." That person turns to the next person and a new category. "Which is better, Ninjas or monkeys?" It is okay to duplicate ideas. Other possible categories: princesses, bugs, break dancers, secret agents, accordion players, athletes.

11. MOTHER MAY I?

This is best played outside. "Mother" (could also be "Father") stands at one end of a large space, while the players stand at the other. Players shout "Mother, may I?", to which, s/he answers "you may take __ steps forward." Players respond in kind. S/he may alternately direct players to take steps backward, or she may direct them to hop, jump, leap, crawl forward or back. If she sees someone misstep, she may send that person back to start. First person to reach him/her becomes the Mother/Father for the next round.

12. RED LIGHT/GREEN LIGHT

One person is the “traffic light,” while everyone else is a “car.” The two parties are separated, as in Mother May I? The traffic light shouts “Red light!” holds up her arms, facing away from the group. She spins around, puts hands down, and shouts “green light!” Cars race towards her, until she shouts “Red light!” again. Cars who “run the light” are sent back to start. Play continues until first car reaches the traffic light.

13. TEAM CHARADES

We know how to play charades. In this version, participants “mingle” to form groups. When a group of three is formed, each group will huddle to plan a tableau to demonstrate a book, movie, or fairy tale. Give the whole group three minutes to huddle. Without moving from their group, each group takes turns demonstrating their tableau while the rest of the group guesses.

SESSION 1	GOAL: PARTICIPANTS WRITE DIRECTIONS TO FIND A HIDDEN TREASURE.	MATERIALS NEEDED
ICE BREAKER & GROUP NORMS 20 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Mingle Mingle. Establish group norms: Discuss and modify as needed (see possible format in addendum)</p>	<ul style="list-style-type: none"> • Cover, maps of <u>Treasure Island</u>, (see attached) • “Group Norms/Community Expectations” (see addendum)
SMALL GROUP HUNT 30 MINUTES	<p>NEW INFORMATION & APPLICATION: Ask: “What does a treasure map look like? Who or when would there be an opportunity to use one?” Show cover picture, illustrated map from <i>Treasure Island</i>, by Robert Louis Stevenson.</p> <p>Form groups of four. Choose random numbers (“Pick a number from one to __, or play a game of “mingle mingle” to form a group). Designate a starting point for a treasure hunt. Each group will be administered a “treasure.” They will scout out a hiding place and write/draw a map to find it or write directions for finding it (clip and copy the instructions below). Once the map/directions are written, the group will discreetly hide their objects. Groups then exchange lists. Groups are now to find the objects hidden by the other group or groups. Re-group and edit directions that are unclear.</p>	<ul style="list-style-type: none"> • Cover and maps from <i>Treasure Island</i> (see addendum) • Treasure Map Writing worksheet (see addendum) • “Treasure coins” • Clipboard • Paper • Pencils • Colored pencils • Erasers
REFLECTION 10 MINUTES	<p>GENERALIZATION: What worked to help groups find the treasure? What kinds of clues were useful? Did your clues need editing? Did you find something to help edit someone else’s clues?</p>	
<p>Suggestions for making today’s activities more challenging: Take the small group activity outside in a wider area.</p>		
<p>Suggestions for making today’s activities less challenging: Instructor hides a treasure coin as an example beforehand or even one per group! Omit writing the clues or save for a different day.</p>		

SESSION 2	GOAL: PARTICIPANTS INVESTIGATE THE LETTERBOXING MN WEBSITE. THEY MAKE THEIR OWN LETTERBOX KIT.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play a round of Warm/Cool/Hot. Gather group together, and using post-it notes, make a list of all the varieties of trees that participants can think of.</p>	<ul style="list-style-type: none"> • Gold coins • Post-it notes, markers • Pre-made stamps (optional), from craft stores, for demonstration
WHAT IS LETTERBOXING? 25 MINUTES	<p>NEW INFORMATION: Ask: “Have you ever been on a scavenger hunt? What do you know about Geocaching?” (Treasure hunt usually involves a box, or “cache,” hidden in a public place, containing a toy or a card. Searchers use a GPS device to locate cache using coordinates and directions that come from online sources or the host, (such as a state park). Searchers are expected to trade an item similar to one they find in the cache.)</p> <p>Describe the premise of letterboxing, as it differs from these other forms of hunting. (Letterboxing does not use coordinates or a GPS unit, but instead clues based on landmarks and compass directions that are found on one of two or three websites. The letterbox cache contains a stamp, usually handmade, which is printed in the searcher’s notebook. In exchange, the searcher prints his or her own “signature stamp” in a log book found in the cache.)</p> <p>With participants, explore the following sites: Search for Letterboxing.org, or Atlas Quest, to get started. You can navigate from there to find letterboxes in your area.</p>	<ul style="list-style-type: none"> • Computers, enough for group to see and explore, or one computer and LCD projector
THE LETTERBOX KIT 20 MINUTES	<p>APPLICATION: Individual/group activity: Choose or make a sketch/scrap book. See addendum instructions for “Making a Log Book” Label Ziplock bag with participant name, keep log book (and future supplies) here for future use. This will be their “letterbox kit.” Instructor will keep kits to have on hand for each session.</p>	<ul style="list-style-type: none"> • See “Making a log book” in addendum • Sketchbooks, or materials for making them: 12 x 18” paper, scissors, pencil, “fun foam” sheets, ruler, white glue. Ziplock bags, masking tape, permanent marker.
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: Now that you know a little more about letterboxing – what are you excited about doing in this class?</p> <p><i>Note on advance prep:</i> Arrange with families or order a bus to meet at specified location during Session 5.</p>	
<p>Suggestions for making today’s activities more challenging: Choose materials in which participants make log book and stamp themselves.</p>		
<p>Suggestions for making today’s activities less challenging: Choose activities that favor pre-made materials, or easily modified ones.</p>		

SESSION 3	GOAL: YOUR TRAIL IDENTITY. PARTICIPANTS CARVE A SIGNATURE STAMP TO USE WHEN HUNTING FOR LETTERBOXES.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 15 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Two Truths and a Lie Yesterday we looked at different ways of making blocks and how to get started in letterboxing. We now have a sketchbook for collecting letterbox images. Today we will establish our own “trail identity” that we will use while we are out in search of boxes.</p>	
PREPARING AND PRINTING A STAMP 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Have youth spend a few minutes brainstorming their letterboxing “handle” or trail name. Now it is time to “get a handle,” or trail name. What will your secret identity be? (it’s okay, you can tell us!). Once all youth have some ideas or have selected a name move on to the next step.</p> <p>Letterbox hunters do an exchange with the artist. When we are hunting for a cache, we print that person’s design in our notebook. In exchange, we will “leave our mark” in a notebook left by the artist. Today we will make that “Signature” stamp (the one you will leave when you find a letterbox). Refer to instructions in “advance preparation” and in addendum for techniques in carving an eraser stamp.</p> <p>Use your “handle” as inspiration to come up with a simple design that you can easily carve. Consider an animal, insect, or other object best associated with you. What (simple) image represents you? This is what you will leave in the log book when you are out hunting!</p> <p>Demonstrate how to carve into the eraser and provide some stamps for them to look at. Have youth practice drawing their image on paper first. Review them to make sure they are simple enough to be carved, then give youth erasers to start carving their designs.</p> <p>Keep the design simple, emphasizing shape as opposed to a line design.</p>	<p>For log book stamp:</p> <ul style="list-style-type: none"> • Rubber art erasers (1 per participant) • Pencils • Pliers (1 per group) • Toothpick (2 per participant) • Paper
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: What did you like about the stamp you made? If it turned out different than you planned, how did you feel about that?</p>	
<p>Suggestions for making today’s activities more challenging: Make a design on two (opposite) sides of the rubber eraser.</p>		
<p>Suggestions for making today’s activities less challenging: Use self-adhesive foam shapes on a cardboard or business card backing.</p>		

SESSION 4	GOAL: GETTING READY FOR A LETTERBOX HUNT! PARTICIPANTS LEARN AND DISCUSS LEAVE NO TRACE, FOLLOW-UP ON PREVIOUS SESSIONS, AND PREPARE FOR AN OUTING.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 5 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Today we are going to be preparing for an excursion to find a letterbox. Remember what we talked about on Day 1 regarding Group Norms. Brainstorm: How do we show “Responsibility” when we are outside? What is the Cause & Effect of being responsible? Of being Irresponsible?</p>	<ul style="list-style-type: none"> • Index cards • Yard stick, tape measure
LEAVE NO TRACE INTRODUCTION 15 MINUTES	<p>NEW INFORMATION: Introduce the Leave No Trace guidelines. Discuss: Why do you think letterboxers follow Leave No Trace Guidelines? What do these guidelines do for our community? How can we use them in everyday life? Sign a pledge to “Leave No Trace”</p>	<ul style="list-style-type: none"> • Leave No Trace (see addendum) • Leave No Trace page
YOUR TRAIL IDENTITY, PART II 30 MINUTES	<p>APPLICATION: Follow up on yesterday’s activity, carving stamps for letterbox kit. Participants will finish cutting their signature stamp, if they have not done so. Participants print their stamp and continue refining it, until they are pleased with the results. If you are using markers instead of stamp-pads, youth will “ink” the stamp by covering the image part with ink from the marker (rather than inking on a pad). If time allows, they may make a label using their new stamp on one of the index cards for their log book from Session 2. Participants add their stamp to the letterbox kit. In preparation for Session 5, make sure there is a stamp pad for every 2 participants, as well as an assortment of thick makers, to add to their kits. Kits should include: Ziplock bag (labeled), log book (also labeled), signature stamp, stamp pad or marker, and a pencil.</p>	<ul style="list-style-type: none"> • Erasers, pencil “carvers” from Session 3. • Index cards – reuse from today’s warm up activity • Stamp pad and/or markers • Letterbox kits from session 2. • Mailing tape, for attaching label to Log Book
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: Discuss plans to visit a park. Show clues (see advanced preparation). Ask: We talked earlier about having a “minimal impact.” We hope to have a <i>specific</i> impact when we find a letterbox! What do you think that will be?</p>	<ul style="list-style-type: none"> • Clue page(s)
<p>Suggestions for making today’s activities more challenging: Have participants be responsible for packing, organizing materials for the whole group. Keep Leave No Trace discussion open-ended, inviting participants to produce their own examples of how to apply seven principles.</p>		
<p>Suggestions for making today’s activities less challenging: Make a list for participants describing specific ways to apply the seven principles for Leave No Trace.</p>		

SESSION 5	GOAL: LET'S GO LETTERBOXING! WE GO ON A FIELD TRIP TO HUNT FOR A LETTERBOX.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 15 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Mother May I?, or Red Light/Green Light</p> <p>Review Group Norms and Leave No Trace. Determine how you would like to divide the group into smaller groups, or if you will be hunting as a whole group.</p>	<ul style="list-style-type: none"> • Participants' Letterbox kits with log books and stamps. • Clue sheet from last session's exploration of Letterbox.org site. Have several copies available for the group.
PREVIEW THE SITE 10 MINUTES	<p>NEW INFORMATION: As a group, observe the features of the park, and consider the clues to find the cache. Review map, if there is one. Note: See "Advance Prep" Determine the boundaries in which participants may explore the park and rules to stay safe: adhere to the buddy system, identify a meeting place in case participants get separated. Get in groups of 4 - if you allow more than a 100 yard perimeter you will need 1 adult volunteer per group.</p>	
THE SEARCH PARTY 25 MINUTES	<p>APPPLICATION: Each group has a clue sheet and is hunting for the letterbox cache. Monitor the groups to ensure their safety (away from traffic, within the grounds defined above). Watch carefully once the cache has been found, making sure that participants are all able to capture the stamp in their log books. Return all letterbox materials to the place where they were found.</p>	
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: What did you like about this experience? What did you dislike about it? What would you do differently next time?</p>	
<p>Suggestions for making today's activities more challenging: Organize the group into small groups and send them to find the letterbox in increments of two minutes - allowing each group to search on its own.</p>		
<p>Suggestions for making today's activities less challenging: Work as a whole group to find the letterbox.</p>		

SESSION 6	GOAL: TAKING IT OUTDOORS! PARTICIPANTS FIND SPECIFIC FEATURES THAT WILL HELP TO HIDE CACHE FOR LETTERBOX. THEY HEIGHTEN THEIR POWERS OF OBSERVATION BY NOTING SPECIFIC FEATURES.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Setting: See “Advance Preparation” Play Sculptures</p> <p>Gather in a group and elicit from participants their familiarity with the park where we are.</p> <p>Ask: What are features you are familiar with? What have you climbed on? Hid under? Ran around?</p>	<ul style="list-style-type: none"> • Sticky notes • Samples of types of maps: street maps, road atlas, trail maps, topographical maps.
SCOUT IT OUT 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Before setting out, identify partners or small groups. Each group is given a clipboard and several sheets of paper. If a park map is available, distribute those to the groups as well. Identify features on the map such as: compass rose, legend, and scale.</p> <p>Groups may wish to copy the basic layout of the maps onto their paper.</p> <p>In a large group, walk around available trails/paths. During the hike/walk, groups observe features (big trees, rocks, playground, sidewalk, paths) and take notes. Stop occasionally to make sketches of what they see.</p> <p>Collect these maps for later use. We will augment them with what we learn later and work with them in future sessions.</p>	<ul style="list-style-type: none"> • Clipboard • Paper • Pencil
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: Gather groups back together, to compare the maps they made. Which features of the maps are similar? Which are different? What do we need so that we can see the same space in more or less the same way?</p>	
<p>Suggestions for making today’s activities more challenging: Add features to participants’ maps including features identified in the park map.</p>		
<p>Suggestions for making today’s activities less challenging: Limit the area for the map to restrict the mobility of participants and also the features.</p>		

SESSION 7	GOAL: ORIENTEERING. PARTICIPANTS LEARN TO USE A COMPASS, AND USE DEGREE MEASURES TO LOCATE TREASURES.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 15 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Degrees</p> <p>Gather participants and review maps made yesterday. How can we make the map more accurate for distance and direction? Review angle degrees (See the Supplement to Session 7 in addendum for details).</p>	<ul style="list-style-type: none"> • Youth-created maps from Session 6
HOW TO USE A COMPASS 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Investigate the use of the compass. See “Advance Preparation” for helpful resources and “How to Use a Compass” in addendum. Introduce the compass, making sure there are enough for everyone to look at. Orient the group to north, and identify the cardinal degrees, and to 90, 180, etc. Teach participants to “Never Eat Soggy Waffles!” Partner/Group practice: Return to the place where you started yesterday’s hike/walk. Choose a spot where you can see many of the features you identified on your map. Using the compass, orient yourselves towards the cardinal directions. From your location, point the direction-of-travel arrow towards a landmark. Turn the compass housing, or bezel, to “put red Fred in the shed.” Read the degree measure where it intersects with the travel arrow. That is your bearing!</p> <p>Now that you have practiced using the compass, it’s time to put it to good use. In pairs, design a three-step course from Point A to B to C. Pairs plant a coin at point C. Each point should correspond to a landmark, such as a tree or visible object. Write the directions down on a scrap of paper. Each step might indicate a direction and a number of paces.</p> <p>Gather all the pairs together and switch lists and search for each other’s coin!</p>	<ul style="list-style-type: none"> • Compasses (one per pair of participants). • Optional: Computer (for instructor) • Optional: make copies of “How to Use a Compass” for youth (in addendum). • Treasure coins • Paper and pencil
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: Show with your fingers from a scale of 1 to 5 how fun it was. Do the same to show how challenging it was!</p>	
<p>Suggestions for making today’s activities more challenging: Choose an activity that has physical features to work around as participants plot different points.</p>		
<p>Suggestions for making today’s activities less challenging: Choose an area that is flat and free of obstructions.</p>		

SESSION 8	GOAL: SET THE PACE! PARTICIPANTS LEARN TO MEASURE DISTANCES WITH ESTIMATION BY CALCULATING THEIR AVERAGE STRIDE LENGTH.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Gather outside. Play Mother May I, or Red Light/Green Light. Discuss with youth: Now that we have had some time learning to use a compass, we have to figure out how to measure distances. How can we do that without a measuring tool?</p>	
HOW TO MEASURE YOUR STRIDE 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Explain to youth: The standard way of answering the question above is to use your own pace. <i>Pace</i> is a misleading term, because it is sometimes considered the distance covered from one footfall to the next (left to right foot), and other times the distance covered in two strides (left foot to left foot). We will consider the distance of one <i>stride</i>, from left heel to right heel. Show participants the Stride Ruler that you have made (see Advance Preparation). In pairs, participants assist in counting and averaging their stride length. They take turns, starting at 0 feet and count the paces to 100 ft. Each group should do this three times, writing down the number of paces each time. After they have three measurements they will find the average $(a+b+c/3)$. Then divide 100 by this number. This is your stride length. For ease of calculation, round to the nearest half foot. Optional: Once participants have a calculation of their stride length - have them estimate distances on the grounds. For example, if they followed a trail yesterday they should now be able to measure the length of the trail and mark it on their maps.</p>	<ul style="list-style-type: none"> • Measuring tape • Sidewalk chalk • Paper and clipboard • Youth-created maps from session 6
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: Gather for discussion. Use a five finger rating (5 fingers “extremely,” 1 “not at all”) to gauge “how accurate do you guess your distance estimates will be, now that you know your stride length?” Consider factors that make estimates more accurate or less accurate. (More accurate: average over several attempts. Measure distances over a variety of terrain. Less accurate: may not take into account change in stride length due to hills, rough terrain, etc.)</p>	
<p>Suggestions for making today’s activities more challenging: Have participants set up another stride ruler that involves more rugged terrain and hills.</p>		
<p>Suggestions for making today’s activities less challenging: Pair participants, older and younger, where they may be able to support each other’s calculations. Shorten the length from 100 feet to ten feet. Increase number of repetitions to compensate.</p>		

SESSION 9	GOAL: TREASURE HUNT PART II	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Rain Storm In Session 5, we made maps of our park. Today we will finish them and use them for treasure hunting games.</p>	<ul style="list-style-type: none"> • Maps made in Session 5 • Plastic sheet protectors
TREASURE HUNTING DIRECTIONS 45 MINUTES	<p>NEW INFORMATION & APPLICATION: Have youth return to the groups they made their maps with. Explain that today each group will be hiding a “treasure” and creating directions of how to find the treasure that another group can follow. Each group will need a clipboard, blank paper, and one of the maps they made previously. Using directional and pacing cues, teams plan a course starting at point X and leading to a hiding place. Hide a treasure coin there.</p> <p>Write directions of how to find the treasure on separate, blank paper. They may choose to use compass bearings, landmarks, paces or distances, in their directions. They should not mark the location on the map, but make sure any landmarks indicated in the directions can be found on their maps. Ex: tree, trail, hill, etc.</p> <p>Return to meeting place. Groups will exchange clipboards cues with their maps and directions, and hunt for their respective treasures. As time allows, they may try to find other groups’ treasures as well.</p>	<ul style="list-style-type: none"> • Treasure coins • Clipboards (one per team) blank paper • Pencils • Compasses (one per team)
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: Talk about how the day went. What constructive feedback can you offer other groups to help them to write directions that are more clear or interesting? What kinds of hiding places were the most interesting or fun?</p> <p><i>Note: Choose what printing technique you will be using and supplies you will need for Session 10.</i></p>	
<p>Suggestions for making today’s activities more challenging: Challenge groups to use their new knowledge of orienteering to design a course based on compass bearings and distances.</p>		
<p>Suggestions for making today’s activities less challenging: Use landmarks as a guide through the course and limit the number of directions to find treasure.</p>		

SESSION 10	GOAL: BLOCK PRINTING, PT. I CARVING BASICS. PARTICIPANTS LEARN ABOUT TRADITIONAL TECHNIQUES FOR PRINTING. DEMONSTRATE PRINTING USING RUBBER BLOCK OR FOAM SHEETS.	MATERIALS NEEDED
ICE BREAKER 5 MINUTES	ACCESS PRIOR KNOWLEDGE: Play Sculptures Ask the group: What does printing mean to you? Can you see any examples of printing in the room?	
PRINTMAKING: APPLICATION 45 MINUTES	NEW INFORMATION & APPLICATION: Demonstrate process of relief printing. See “printing from a block” and “printing from art foam” in addendum. Choose which format you will be using with your group based on supplies/skills. <ol style="list-style-type: none"> 1. Show pre-made block. 2. Brush watercolor paint across foam sheets. 3. Place clean sheet of paper over block. 4. Rub back of paper with baren/spoon/doorknob. 5. Repeat inking and printing, using stamp pad and/or markers. Demonstrate making printing block with craft foam <ol style="list-style-type: none"> 1. Draw onto uncut surface with markers. 2. Cut out design (keep it simple) 3. Using gorilla glue, brush a small amount onto the back of each piece of craft foam, transfer onto pre-cut cardboard block. Individual/group work time: Participants make “throwaway” design on craft foam and glue it to paperboard (cardboard) backing. Clean-up materials, return tools to containers/caddy.	<ul style="list-style-type: none"> • Craft foam, paperboard, markers, tempera paint or water-based printing ink. Watercolor paint, stamp pad, ½ sheets of white craft paper, Japanese baren OR wooden spoon OR smooth doorknob • At tables: (in table caddy) 4 x 6” craft foam sheets, cardboard scraps pre-cut to 4 x 6” scissors, markers, enough for 4-6 people per table. • Stack of paper for each table to print on. • “Gorilla” glue, cheap brushes for glue, plastic cups: 2/table to share.
CLEANUP AND REFLECTION 10 MINUTES	GENERALIZATION: Discuss the process: What worked for you today? What would you plan to do differently next time?	
Suggestions for making today’s activities more challenging: Add other materials (yarn and string, pipecleaners, coins, cut and torn paper, paper clips, and found objects) to cardboard to make a variety of shapes and textures.		
Suggestions for making today’s activities less challenging: Encourage participants to make a design using simple shapes that do not overlap. Once glued, foam sheets can be drawn with pencil to make “reverse” lines when printed.		

SESSION 11	GOAL: BLOCK PRINTING, PT. II PARTICIPANTS WILL CONTINUE YESTERDAY'S ACTIVITY OF DESIGNING A BLOCK THAT WILL BE USED. TODAY THEY WILL COLLABORATE WITH A TEAM TO PRODUCE THEIR FINISHED DESIGN.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Which Is Better? While this is happening, make note of which categories seem to resonate most with the group. Last session we learned about printing and made our own prints. Today we will make the block we plan to leave in a cache for others to find. Individuals will make their own design, but will collaborate with a “theme team” to produce a single cache with 3-4 people. Groups will plan their cache accordingly.</p>	<ul style="list-style-type: none"> • Chart paper or white board.
COLLABORATIVE BRAINSTORMING 15 MINUTES	<p>NEW INFORMATION: See Advance Prep regarding the number of groups you should have. Choose (x) categories to list on the board, and title them based on the Which is Better game played earlier. Number below each category, based on the most even division of your group. For example, “Ninjas 1, 2, 3, 4. Monsters 1, 2, 3, 4.” Allow participants to sign up on the numbered spaces under the category of their choice. That will be the “Theme Team” by which participants will collaborate. Participants are perfectly free to change the category. You have now identified affinity groups by which participants with similar interests or friendships will collaborate. Make sure there is a maximum number of participants per group as this will determine how much stuff will fit in each cache. Once groups are established, they must plan what kind of designs they wish to put in their cache. It may be as simple as the category they started with, or it may be what they are more comfortable in drawing. Give time for groups to draw their designs/</p>	<ul style="list-style-type: none"> • Chart paper & markers, white board & markers, or other display. • Paper and pencils
PRINTMAKING 25 MINUTES	<p>APPLICATION: Each participant makes a block according to the methods learned yesterday. Remind participants that the image will be reversed when printed - so be careful with letters! Pin up finished prints somewhere central in themes. Clean Up.</p>	<ul style="list-style-type: none"> • See yesterday’s list for print materials. • Pre-cut paper; 4 x 6” • Markers or printing blocks
CLEANUP AND REFLECTION 10 MINUTES	<p>GENERALIZATION: How did you communicate your theme with an image? Will strangers be able to see what your prints in your Theme Team have in common? <i>Note:</i> for “homework” have youth find and bring a container they could use for their letterbox. Optional: make copies of the handout with images of good containers in the addendum.</p>	<ul style="list-style-type: none"> • Display board • Miscellaneous containers: Ziplock bags and containers, plastic screw-top jars, like mayonnaise and peanut butter
<p>Suggestions for making today’s activities more challenging: The group may choose to put their blocks together to make one image that reads as one. Each participant will design one part of the larger picture.</p>		
<p>Suggestions for making today’s activities less challenging: Participants may opt to divide the labor for the group. They may cut a single block in half or choose to complete a design from yesterday and choose from among their team which one they decide they want to use in their cache.</p>		

SESSION 12	GOAL: CONTAINING YOUR CACHE. TEAMS CHOOSE FROM A VARIETY OF CONTAINERS TO HOLD THEIR LETTERBOX MATERIALS.	MATERIALS NEEDED
WARM UP 15 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Look at the prints generated yesterday as a group. Congratulate each other on progress made!</p>	
WEATHER-PROOFING 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Discuss with group: What will happen to a box that's left outside? What should our letterbox be able to withstand if it's to last until next year? Discuss those aspects of weather to contend with: rain, mud, snow, feet, inquisitive hands.</p> <p>We will have to find ways to keep our letterboxes safe and hidden. See materials document in addendum for ideas; see Advanced Prep for more.</p> <p>Meet in "theme teams" to select materials. Plan and make your letterbox, making sure all items fit securely. If stamps are not completed, provide time to finish.</p> <p>Optional: read available clues printed from letterboxing.org; begin thinking of ways to write clues for your cache.</p>	<ul style="list-style-type: none"> • Patterned duct tape • Computer, LCD projector. • Variety of collected containers* • Bleach and scrub brushes (for cleaning and de-scenting) – instructor should be the one to handle bleach. • Duct tape • Labels (see attached document "letterbox labels") on Avery 5160. • Clear mailing tape
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: What are other things that could happen to your cache over time and what can be done to minimize the chances that it could be damaged?</p>	
<p>Suggestions for making today's activities more challenging: Have available a wide array of materials and options for storage. Choosing the container that best fits the contents can be tricky!</p>		
<p>Suggestions for making today's activities less challenging: Preselect a store bought container (should be able to find in your favorite discount department store or Axman), making sure it will fit the materials required. Limit the number of options for finishing the letterbox.</p>		

SESSION 13	GOAL: THE LOG BOOK. PARTICIPANTS RETURN TO THE PROCESS OF BOOKMAKING TO MAKE A LOG BOOK, IN WHICH VISITORS TO THEIR LETTERBOX WILL RECORD THEIR “SIGNATURE STAMP.”	MATERIALS NEEDED
<p>WARM UP 5 MINUTES</p>	<p>ACCESS PRIOR KNOWLEDGE: Recall the log book from participants’ letterbox kit. If your group has made a visit/ hunt for a letterbox, recall the book in which you left your signature stamp.</p>	<ul style="list-style-type: none"> • Sample of letterbox kit.
<p>REVISIT BOOKBINDING TECHNIQUES 50 MINUTES</p>	<p>NEW INFORMATION & APPLICATION: Tell participants that when people hold weddings or funerals, the host family often wants to record who had been there to share the event. Letterboxers do the same. We can make a miniature version of the sketchbooks we have in our letterbox kit or we can try a new design or technique. See the handout “making a log book” used earlier in Session 2, or check the links under “advance preparation” for this session. Options include (in order of complexity): One-page booklet</p> <ul style="list-style-type: none"> • Accordion-fold book • Pamphlet stitch book • Codex book <p>Participants make a mini log-book for their letterbox, using the techniques discussed above. Other activities: Theme teams may collaborate on the binding of their books. Tasks may include:</p> <ul style="list-style-type: none"> • Designing a cover for the book • Prepare cover boards • Compose clues for finding the cache. <p>By this point, letterboxes should each have: a stamp from each Theme team member and a log book. Do not leave stamp pads or markers in it, as they will freeze, leak or dry out.</p>	<ul style="list-style-type: none"> • Computer, LCD projector • Miscellaneous papers: art paper, craft paper, paper bag (cut out large panels), used manila folder • Cereal box board • Binder clips • Paper cutter • Awl* • Binder’s thread* • Bone folder or other creasing tool.* <p>*available at art supply stores.</p>
<p>REFLECTION 5 MINUTES</p>	<p>GENERALIZATION: Review progress of letterboxes. Is there anything else we will need or want to leave in it?</p>	
<p>Suggestions for making today’s activities more challenging: Choose book making processes that involve multiple steps or use of ruler and straightedge.</p>		
<p>Suggestions for making today’s activities less challenging: Choose book making processes that involve fewer steps - accordion books or simple staple binding for mini log-book.</p>		

SESSION 14	GOAL: A CLUE! A CLUE! TEAMS HIDE THEIR CACHE, AND BEGIN WRITING THE CLUES THAT WILL BE USED TO FIND IT.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 5 MINUTES	ACCESS PRIOR KNOWLEDGE: Play Warm, Cool, Hot Review the Leave No Trace rules of etiquette in nature.	<ul style="list-style-type: none"> • Group Norms and Leave No Trace guidelines
PERUSE THE CLUES! 15 MINUTES	NEW INFORMATION: Gather the whole group together and have available printouts from local letterbox caches. Some are literary, some are straightforward, some are cryptic. These clues use wordplay, anagrams, and metaphors. Which approach is right for your group? Options include: <ol style="list-style-type: none"> 1. Degree measures and paces 2. Landmarks 3. Tricky comparisons or metaphors 	<ul style="list-style-type: none"> • Printouts of various clues from local letterbox displays (pull from websites listed in advance prep for session 1)
HIDE YOUR BOX! 35 MINUTES	APPLICATION: Theme teams bring their letterboxes on a hike around the grounds where they will be hidden. Find a place where it will be safe, but do not disturb any plants or animals. No digging! Hide it as best you can! Teams write down all the information they can, including: features nearby, directions from A to B, etc. They will use this information to craft their clues.	<ul style="list-style-type: none"> • Letterbox • Paper and clipboard • Compass
REFLECTION ACTIVITY 5 MINUTES	GENERALIZATION: What did we do today to make this more exciting or real? Which of the clues we looked at were most interesting? Which ones motivated you to say “hey, I want to try to find that one!”?	
<p>Suggestions for making today’s activities more challenging: Consider using an approach to writing clues that uses storytelling to leave clues. “Once upon a time, there was a dangerous pirate.”</p>		
<p>Suggestions for making today’s activities less challenging: If there are no good holes, or rocks, or other natural features to hide the caches consider ways that it could be hidden above ground. It should be accessible but does not have to be completely hidden (it just might not last that long!).</p>		

SESSION 15	GOAL: FINDING FLORA AND FAUNA! PARTICIPANTS WILL EITHER CONTINUE UNFINISHED WORK ON THEIR CLUES AND LETTERBOXES, OR THEY WILL SEEK TO IDENTIFY PLANTS AND ANIMALS PRESENT ON THE GROUNDS.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play What Tree (or animal) am I? Brainstorm on white board or chart paper: What plants and animals have we found on the grounds here? What do we suspect is here that maybe we have not seen yet?</p>	<ul style="list-style-type: none"> • Post-it notes • Chart paper • Optional: Field guides (see Advanced Preparation)
NATURE STUDY 45 MINUTES	<p>NEW INFORMATION & APPLICATION: This is an opportunity to explore and hunt for species of plant and animal on the grounds. This is also an opportunity for participants who need to continue working on their letterboxes: stamps, clues, log books that remain unfinished. Peruse the activities from DNR Website and choose which are most appropriate to the age level and resources at your particular site. (There are loads of pdf's that can be printed for participant use.)</p> <p>Form participants in theme teams. Assess the needs of teams in terms of their letterbox production. If their boxes are finished, choose from the PDF's from the MN DNR and explore the surrounding area.</p>	<ul style="list-style-type: none"> • Printouts from DNR site (see Advanced Preparation) • Field guides • Youth-made maps from Session 6 • Clipboards • Pencils
REFLECTION ACTIVITY 5 MINUTES	<p>GENERALIZATION: What did you see on your hike? What is something new that you discovered or learned to identify?</p>	
<p>Suggestions for making today's activities more challenging: Extension activity: participants take their maps (from session 5) and identify natural features they find directly on the maps. Should they wish to add any new discoveries to their list of clues - it is not too late!</p>		
<p>Suggestions for making today's activities less challenging: Limit the number of items participants are sent with and mark three kinds of trees, two animals, one rock, etc., that you know are present on the grounds. Alternate activity: some of the activities available in the MN DNR site (see Advance Prep) are easily conducted indoors.</p>		

SESSION 16	GOAL: A DRY RUN. PARTICIPANTS TEST OUT EACH OTHER'S CLUES AND LETTERBOX CACHE BY HUNTING FOR THEIR BOXES.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 15 MINUTES	ACCESS PRIOR KNOWLEDGE: Play Team Charades Discuss: What more needs to be done for us to roll out our letterboxes?	<ul style="list-style-type: none"> • Chart paper or white board
STASH YOUR CACHE! 40 MINUTES	<p>NEW INFORMATION & APPLICATION: We are about to publish our clues. Before we do, we need to do what all good writers do: EDIT! The theme teams all need a fresh pair of eyes to make sure that a total stranger can read their directions and follow them to your letterbox.</p> <p>Plant and Hunt! Theme teams will do the following:</p> <ol style="list-style-type: none"> 1. If they are not already hidden, hide the letterbox. They may have to split up and “Feint” to psych out other teams! *you may choose to use the warm-up time to give some groups the opportunity to plant their cache while the rest of the participants are playing the game. 2. Place the clue sheets on a table. Each team will choose the clues of another team. 3. Each member gets his/her letterbox kit with log book. Make sure there is a stamp pad or marker in each one! 4. Go out and hunt for boxes! Make comments and questions on the other teams’ clue pages to help clarify. Were the clues clearly written? Properly spelled? Interesting? 5. If time allows, switch clues and have each team review other team’s clues. Teams should think about – What could other teams do to make their clues more clear? More interesting? 	<ul style="list-style-type: none"> • Each Theme Team’s list of clues. • Letterbox kits • Clipboards • Pencils • Dictionary
REFLECTION ACTIVITY 5 MINUTES	GENERALIZATION: Reflect on the day and offer feedback. What went well when we gave each other feedback? What could have gone better?	
<p>Suggestions for making today’s activities more challenging: Challenge groups to find all other caches.</p>		
<p>Suggestions for making today’s activities less challenging: Keep groups all together or consolidate as needed to support each other in the hunt and save time.</p>		

SESSION 17	GOAL: REVISE & EDIT	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Mother May I? Review from last session: What general themes did we see that could be improved in editing?</p>	
EDITING 40 MINUTES	<p>NEW INFORMATION & APPLICATION: Discussion: Revise clues to reflect the suggestions of other teams. Consider ways to make clues interesting or more understandable for “outsider” letterbox hunters. Theme teams meet to decide how to revise clue sheet. Guiding principles for clues: Are the clues clear? Are they interesting/compelling? Place revised clues on the table as before (Session 16), and continue hunting clues of other groups. Come back to the large group and decide how we want to publish our clues. Will we publish on one of the letterbox sites? Or can we make our clues available to the nearest interest group (school, rec. center, friends)? Discuss principles of revising, outlined below.</p>	<ul style="list-style-type: none"> • Pencils • Clues • Clipboards • Computer (if typing clues)
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: Share what changes you made and offer feedback to your peers. How has this improved your written clues?</p>	
<p>Suggestions for making today’s activities more challenging: Challenge teams to incorporate finds from Session 14, describing rock formations or facts you might have learned about the natural or geological history of the area.</p>		
<p>Suggestions for making today’s activities less challenging: Limit the number of factors for the revised search to those of accuracy and distance.</p>		

SESSION 18	GOAL: PUBLISHING AND CELEBRATION. TEAMS PUBLISH THEIR CLUES AND PLAY A CELEBRATORY ROUND OF CAPTURE THE FLAG.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play 4 Directions.</p> <p>What does it mean to publish? Who is your audience when you do? Who will be your audience for this quest? Friends? Local hikers? Participants? Letterbox hunters from around the world? By now, you should be ready to publish to your intended audience.</p>	
PUBLISHING 15-40 MINUTES (DEPENDING ON GROUP)	<p>NEW INFORMATION & APPLICATION: (See Advance Preparation) Note – your group may need more time for publishing and Capture the Flag is optional. Based on yesterday’s discussion regarding the intended audience of letterbox seekers, we will post our info online or in paper form (see below). For worldwide distribution: Set up computer stations and log in to the letterboxing site of your choice. Teams upload their information on the site. For local distribution: Print your signature stamp in the space provided on the invitation. Sign it by your Letterbox “handle.” This corresponds to your team name and will instruct the distributor of your clues as to which one to give out.</p>	<ul style="list-style-type: none"> • Computer(s) • Invitation Cards (see addendum) • Letterbox kits • Pens
OPTIONAL: CAPTURE THE FLAG 25 MINUTES	<p>Play Capture the Flag! Divide your group into two teams. In a wide open space, divide the ground in half and mark with cones or other markers. Each team designates an area for a “jail.” Teams hide their flag somewhere in their territory. To play, teams must retrieve their opponent’s flag and bring it to their own territory, without being tagged. “Captured” players remain in their opponent’s jail until they are rescued by a teammate (the group leader can also call a “jailbreak”, freeing all prisoners). Liberated players get “freebacks,” and are immune from capture, if they walk hand-in-hand back to their own territory.</p>	<ul style="list-style-type: none"> • Bandana or other “flag” (it could be any object) • Cones, stakes, rocks, or other boundary markers.
REFLECTION ACTIVITY 10 MINUTES	<p>GENERALIZATION: Ask youth: What sticks out in your memory as something you really enjoyed doing in this class?</p>	
<p>Suggestions for making today’s activities more challenging: Recruit participants in actively promoting this opportunity to groups that interest them.</p>		
<p>Suggestions for making today’s activities less challenging: Sit down with groups individually and type out their clues on the website while other groups are engaged in the other activities.</p>		

SUPPLEMENTAL SESSION 1	GOAL: COMPASS GAMES. PARTICIPANTS WILL PRACTICE ORIENTEERING SKILLS BY DOING COMPASS ACTIVITIES, COURTESY OF THE BOY AND GIRL SCOUTS.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 15 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play 4 Directions.</p> <p>Review terms for sixteen compass points. Clockwise, they are: N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW. Invite participants to draw on the board as we name them.</p> <p>Add degree measures corresponding to the directions.</p>	<ul style="list-style-type: none"> • Display board and marker
HUMAN COMPASS ROSE 10 MINUTES	<p>NEW INFORMATION: Teach the sixteen point compass game (see Advance Preparation). Set out the cardinal directions and have four volunteers each take one and stand in their corresponding spots. Now set out secondary cards and have four more participants position themselves. Hand out tertiary cards in like manner, until sixteen participants are arrayed in a circle. Return cards to a table face down.</p>	<ul style="list-style-type: none"> • Index cards, marker
GROUP COMPASS ACTIVITIES 30 MINUTES	<p>APPLICATION: Group activities: Choose between the compass activities described in the Addendum and/or on Advance Preparation page. The “Compass Game” is for participants who are interested in trying their hand at degree bearings.</p>	<ul style="list-style-type: none"> • For “Cardinal Points,” you will need treasure coins, and a compass for each pair of participants. • For the “Compass Game,” you will need nine stakes (garden or paint stick plus one tent stake), route cards and answer sheet, and a compass for each pair of participants. See Advance Preparation.
REFLECTION 5 MINUTES	<p>GENERALIZATION: What made this activity challenging? Did you discover any new understandings by playing something these compass games?</p>	
<p>Suggestions for making today’s activities more challenging: Give participants the choice to try the harder activities. Involve one or two participants in laying out the stakes and the measuring string.</p>		
<p>Suggestions for making today’s activities less challenging: Stick to activities that involve the cardinal directions or sixteen compass points.</p>		

SUPPLEMENTAL SESSION 2	GOAL: LET'S GO LETTERBOXING! WE VISIT A DIFFERENT PARK TO FIND A DIFFERENT LETTERBOX CACHE.	MATERIALS NEEDED
ICE BREAKER/ WARM UP 10 MINUTES	<p>ACCESS PRIOR KNOWLEDGE: Play Mother May I? or Red Light/Green Light while participants arrive.</p> <p>We have been on one field trip together and we searched for letterboxes. What do you remember most about that trip?</p>	<ul style="list-style-type: none"> • Participants' Letterbox kits with log books and stamps. • Clue sheet from previous exploration of Letterbox.org site. Have several copies available for the group. • Compass, as needed
PREVIEW THE SITE 5 MINUTES	<p>NEW INFORMATION: See Advance Preparation</p> <p>As a group, observe the features of the park, and consider the clues to find the cache. Review map (if there is one).</p> <p>Determine the boundaries in which participants may explore the park and rules to stay safe: adhere to the buddy system, identify a meeting place in case participants get separated.</p>	
THE SEARCH PARTY 40 MINUTES	<p>APPLICATION: Each group has a clue sheet and is hunting for the letterbox cache. Monitor the groups to ensure their safety (away from traffic, within the grounds defined above). Watch carefully once the cache has been found, making sure that participants all are able to capture the stamp in their log books.</p> <p>Return all letterbox materials to the place where they were found.</p>	
REFLECTION 5 MINUTES	<p>GENERALIZATION: How was this second excursion different from the first for you?</p>	
<p>Suggestions for making today's activities more challenging: Organize the group into small groups and send them to find the letterbox in increments of two minutes - allowing each group to search on its own.</p>		
<p>Suggestions for making today's activities less challenging: Work as a whole group to find the letterbox.</p>		

The following pages include all printed supplementary materials including: forms, worksheets, handouts, etc.



CURRICULUM PLAN: COMMUNITY STANDARDS/GROUP NORMS

Purpose: Engage youth in the development of community standards for the group

Time: 15-20 minutes

Materials: Butcher paper, poster board or flip chart and markers

Planning: Title your large piece of paper with Letterboxing. Draw a large circle in the middle of the paper, the inside of this circle will represent the behaviors or expectations the group members want in the group.

Procedure: Explain to the youth they will be creating their community standards, by defining the behaviors they think are appropriate and inappropriate for their group. Have youth come up and write their ideas for behaviors they want in their group inside the circle (i.e. participate, read, have fun, be respectful, learn something new). If youth identify something they don't want to happen in their group, they should write this outside of the circle (i.e. fighting, bullying...). After everyone has had the opportunity to add something to the poster, they are agreed upon invite them to sign their name on the poster.

Discussion: Ask everyone if they know what it means to sign your name on something?

Reflection: How did it feel to create your own community expectations? Is there anything you think you will have a hard time doing/not doing? What should be the consequence of breaking this contract?

Option: Create a Community Standards Poster, have all youth sign it. This could be done on paper in class or you could take their standards and replace them with the suggested ones on the following page. Feel free to make changes to the following page "poster", print and use with your group.

LETTERBOXING - COMMUNITY EXPECTATIONS & GROUP NORMS

In this class, we will have opportunities work with other people and by ourselves. We will be both indoors and out. We will share materials and space with the people around you as well as people you will never meet. We will be **stewards** of the places where we are working.

Be Safe

1. Take care of myself and the people around you.
2. Ask permission before I leave the area.
3. When we are outside, keep to the Buddy System when you are out of visual range of adults.

Be Respectful

1. Use kind words and actions. Be empathetic.
2. Take care of materials that do not belong to us.
3. Leave things the way I found them (*except* where you carefully leave something on purpose!)
4. Share my ideas for other people's work in a helpful way.

Be Responsible

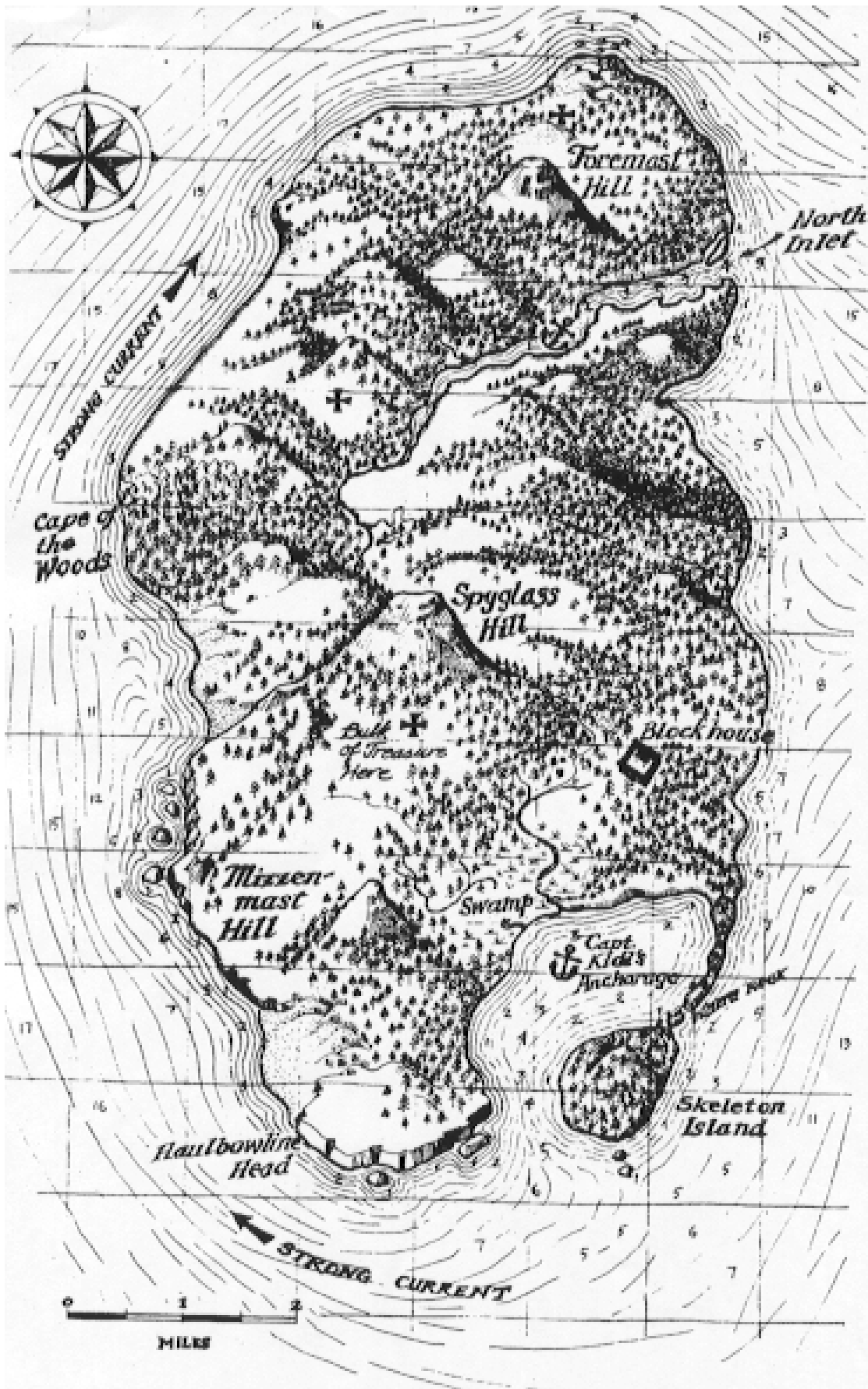
1. Follow directions
2. Do my best work
3. Take care of the materials we use by putting away tools, cleaning work space.

*Buddy system: pick another person to accompany you when you are away from the group. Stay with that person until you return to the group.

I helped make and agree to follow the Community Standards for my Letterboxing class. (sign below)

TREASURE ISLAND





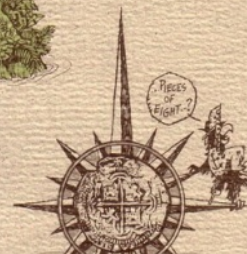
SESSION 1: TREASURE HUNT

Look closely, mateys, as you visit Treasure Island today... for the memories still linger here of Long John Silver and Jim Hawkins, of Black Dog and Israel Hands, of Dr. Livesey and Cap'n Flint. And the voice of old Ben Gunn still haunts these woods and paths... still laughing, mocking. Listen closely... for in Ben Gunn's words may be the clue to where the treasure hides... to this day!

"Might them find treasure?
Not when old Ben Gunn has hid it!
'Tis for you to find, sez I!"
—Ben Gunn

- 1 JOLLY ROGER WHARF
- 2 CAP'N FLINT'S PERCH
- 3 BUCCANEERS' COVE
- 4 NORTH INLET
- 5 LOOKOUT POINT
- 6 BLACK DOG BRIDGE
- 7 DOUBLOON LAGOON
- 8 MUTINEER FALLS
- 9 DEAD MAN'S ISLAND
- 10 SKELETON ISLAND
- 11 SKELETON LAIR
- 12 BUCCANEERS' ROOST
- 13 BLACK DOG SWAMP

- 14 CAPE OF THE WOODS
- 15 REMAINS OF "THE WALRUS"
- 16 SCAVENGER BEACH
- 17 FLAMINGO LAGOON
- 18 RUM POINT
- 19 TOUCAN CAGE
- 20 THE MIZZENMAST
- 21 MATES AND MAIDENS
—Ye olde reste rooms.



TREASURE ISLAND

If Buccaneers and buried Gold,
And all the old romance, estold
Exactly in the ancient way,
Can please, as me they pleased of old
The wiser youngsters of to-day...
so be it!
—Robert Louis Stevenson

How to make ye treasure list:

This is no map. You will do that later. You will work with your group to hide your treasure somewhere close by. On the back of this paper, list ye names, and make a name for ye group.

Find a hiding place for ye treasure. Now, make it interesting for those who seek your treasure! Use at least three directions. Use cues like:

Walk (a #) units (feet/paces/floor tiles).

Find (a landmark, describe by color or shape).

Turn (a degree measure; $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ clockwise)

Look for (another landmark)

... etc.

SESSION 2: MAKING A LOG BOOK

When you are out on the hunt for letterboxes, one of your most important tools is your log book. This is what you will print your finds in. It is nothing more complicated than a sketchbook; a place to print, and write, and draw. You can get decent quality sketchbooks at your local art supply store, like the one shown here, which I bought for about \$2. Spiral bound books are best, because they will lie flat, making printing easier. It is easy to make your own sketchbook, from a single sheet of paper. Here's how.



Start with a 12 x 18" sheet of paper and fold it in half, lengthwise (hot dog fold). This is a standard, off-the-shelf paper used in most art classrooms. With the crease at the top edge, fold again, right edge to left edge. Fold that left edge back over to the right, bringing the edge flush with the crease made in the second fold. Flip the paper over and repeat. You should now have a W-shaped paper. Unfold to see an eight panel paper. Fold paper again, widthwise (hamburger-style). Trace the crease from the top fold to the horizontal crease. Cut on that line.



Open up the paper. It will look like it's got a mouth. "Open" the mouth all the way by refolding the hamburger fold. You will see the book's pages now. Push the two panels on the ends together and crease the middle panels so that they make pages. You now have a book.



You can add covers to the book by adding cardboard, box board, or in this case, fun foam (see the separate lesson on printing with fun foam). Trim two panels that are slightly (1/4") larger in both directions, than your paper. Apply white glue to the boards (I tell students to "give it chicken pox") and leave about 1/4" gap between the two. Set the spine of your book in that gap and carefully open up the book, pressing the ends down on the glue. The gap allows the book to open all the way and lay flat. Once the glue was dry, I made a spine with electrical tape.



By the way, if you are in or near a school, you may have access to a spiral binder. These are machines that are easy to use, and which can turn a pre-cut stack of paper into a spiral bound notebook. That's one more option that some teachers have in their toolkit.



SESSION 2: MINI LOG BOOK

This is the book you will leave in your cache for visitors to record with their log stamp. It should be just big enough for visitors to leave their mark with their log stamp, and perhaps a note or comment about your letterbox!

Some ideas for the log book: an accordion book <http://www.makingbooks.com/accordion.pdf>, a pamphlet stitch book <http://www.reframingphotography.com/content/book-making-pamphlet-stitch-book>. Materials you may need for these include:

- Creasing tool: bone folder (a very nice specialty item), dull pencil, or craft stick.
- Awl, for making stitches
- Thread
- Straightedge/ruler
- Assortment of papers. Suggestions: manila folder, paper bag, adding tape,
- Stiff paper or board, such as cereal box board

SESSION 3: MAKING YOUR OWN STAMP

Taken from: <http://www.homemadesimple.com/en-us/crafts/pages/make-your-own-eraser-stamps.aspx>



Making your own custom eraser stamp is so easy and fun, once you get started, you won't want to stop. You don't need any special tools—you probably already have what you need on hand.

Materials:

Eraser

Pencil

Black permanent marker

Craft knife

Ink pad, markers or acrylic craft paint, for stamping

Scrap paper

Instructions:

1. Draw your design directly onto the eraser with pencil. Remember, if you use any words in the stamp design, they should be reversed into mirror images so they will print correctly when stamped.
2. When you are happy with your design, trace over the pencil lines with black permanent marker. The black lines will help you see what your final stamp will look like once it's carved.
3. With your craft knife, carve away any parts of the stamp that are not colored black. Remember, safety first: Always carve away from yourself, and keep your fingers out of the way of the carving tool.
4. When you're finished carving, test out your stamp on scrap paper to see if it needs any further work.

Eraser Making Tips:

- Start with shallow cuts. It is easy to cut more, but not easy to add to the stamp if you cut away an important detail.
- Keep your first stamp simple. These inexpensive materials work better with less detail. For example, minimize and print our free butterfly, leaf or acorn templates to use as designs.
- Eraser stamp carving is a great introduction to basic printmaking. If you enjoy this project, you might consider purchasing a small set of linoleum carving tools at your local craft store for more precise stamp carving.
- Carve both sides of the eraser to double your stamping options.



SESSION 4: LEAVE NO TRACE

This is a set of guidelines for how to take care of the outdoors. The Center for Outdoor Ethics has compiled the following seven principles to consider whenever we are outside:

1. Plan Ahead and Prepare
2. Travel and Camp on Durable Surfaces
3. Dispose of Waste Properly
4. Leave What You Find
5. Minimize Campfire Impacts
6. Respect Wildlife
7. Be Considerate of Other Visitors

These principles can be applied to people visiting public parks in urban areas as well as people who are camping in pristine wilderness. *We are ethically responsible for making sure to have a minimal impact on the land and waters we use.*

- What does “minimal impact” mean?
- Talk about the seven principles. How do you think they apply to keeping a minimal impact?
- When we are visiting public lands, how can we apply those principles?

For more information, look up “Leave No Trace, Center for Outdoor Ethics” in your browser.

Describe one thing you will do to make sure you Leave No Trace! (Sign your name, too.)

SESSION 7: HOW TO USE A COMPASS

Grade: Upper Elementary

Time: 1 hour

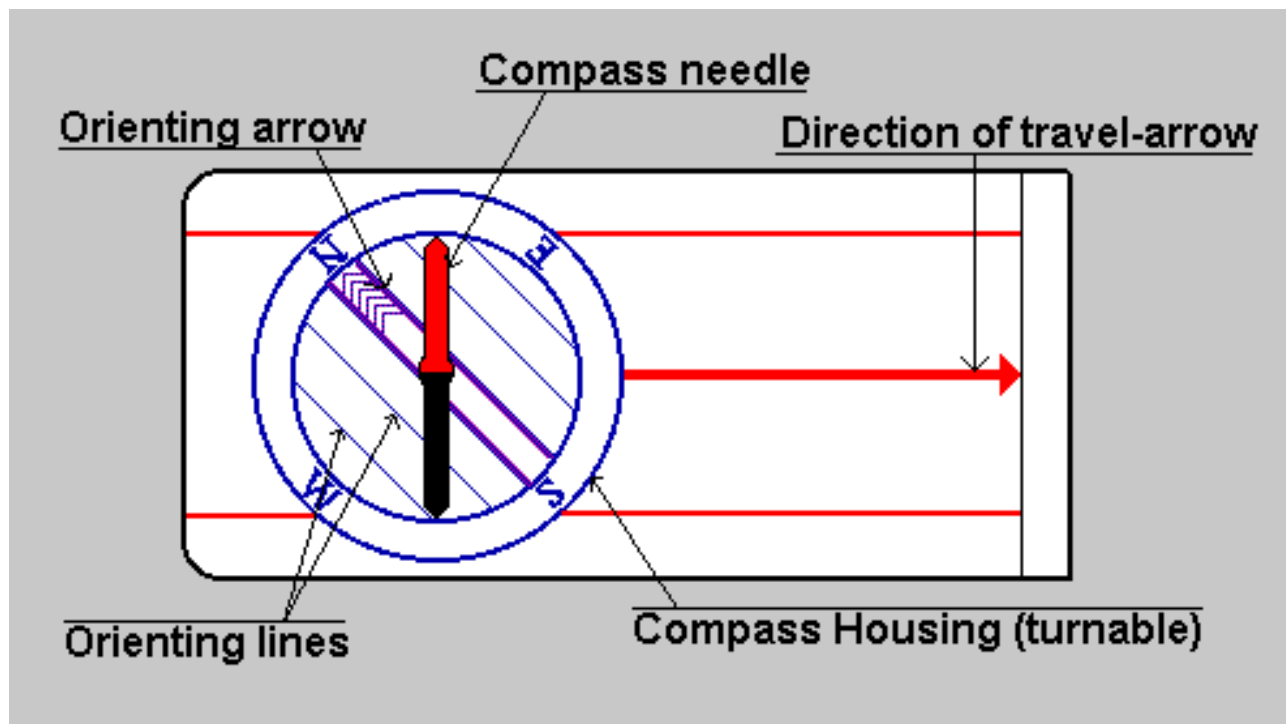
Objectives: Youth will demonstrate the proper use of the mapping compass to find their bearing

Materials:

- Transparencies of:
 - Compass, enlarged
 - Compass, enlarged, with needle and arrow aligned
- Compasses, one for each pair of students in the class
- Maps
- Open area

Introduction

Introduce parts of the mapping compass

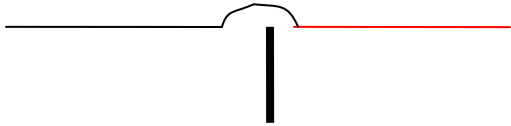


Procedure

1. How a Compass Works

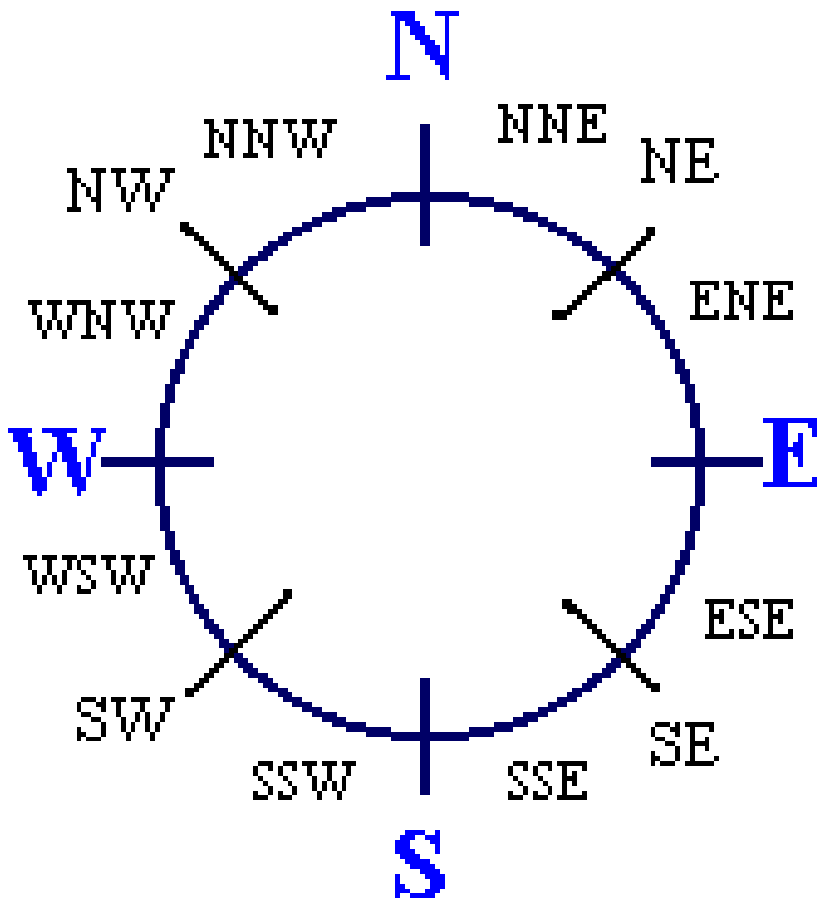
Discuss briefly how a compass works

- Red half of needle always points North, because it is a magnet
- Needle is balanced on a point in the center of the compass, so that it is free to spin around



- Dropping a compass can knock the needle off the balance or destroy the magnet , so be extra careful not to drop the compasses.

Review the directions:

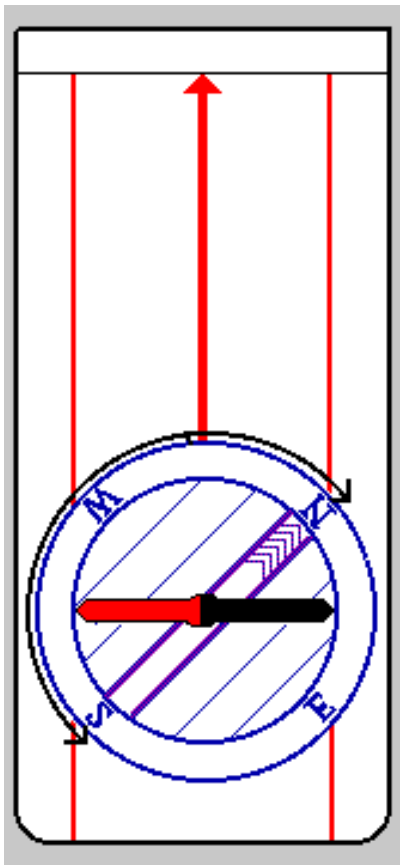


2. How to use the compass:

- Hold the rounded end against your belly button, so that it sticks straight out from you body. This way the bearing arrow is showing you what direction you are headed in.
- Turn the dial so that Red Fred, the red half of the needle, is in the shed (red arrow on the compass face).

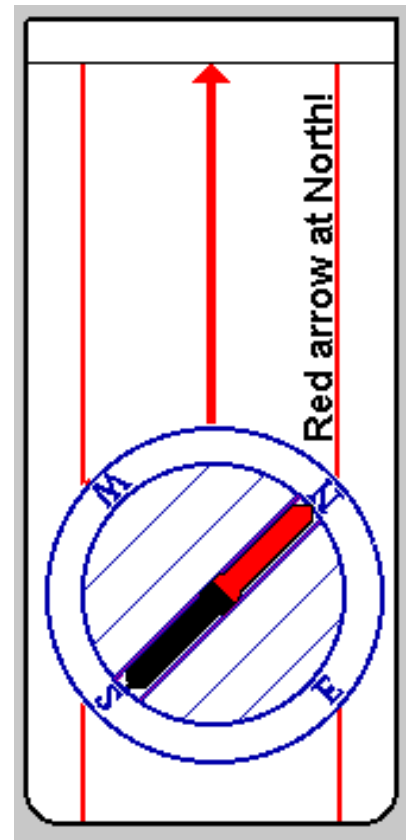
Put Red Fred in the the Shed.

- Look at where the bearing arrow lines up with the dial. Look for the closest letter on each side, then decide which direction you are headed in.



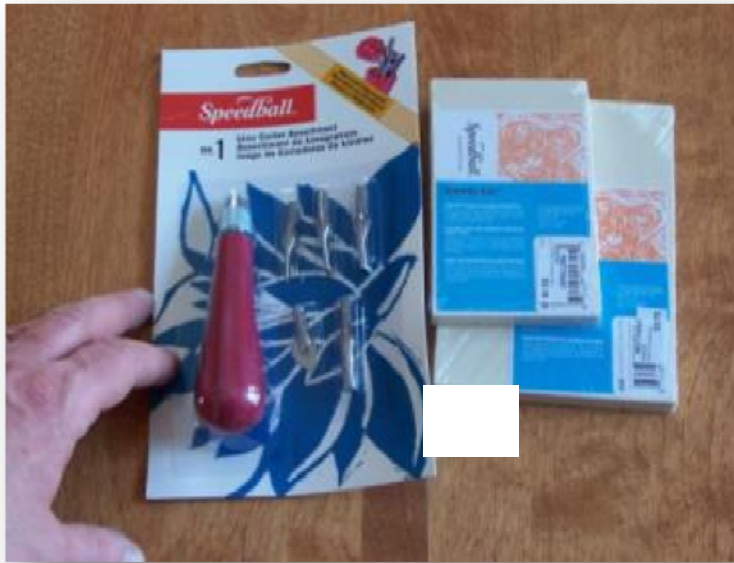
If you were looking down at this, held at your belly button, you would have to turn the housing (dial) so that Fred (the red half of the needle) was in the shed (the purple arrow). If you did, the bearing arrow would be lined up with E, so you would be headed east.

In this case, you have already put Fred in the Shed, so you are ready to read the bearing arrow. The two closest letters are N and W. You are equally between the two, so your bearing is northwest.



Give each pair of students a compass, and a few minutes to explore it. Then go through the procedure of finding your bearing twice, once for each partner to practice.

SESSION 10: PRINTING FROM A BLOCK



There are a variety of products that are specifically made for simple block carving. The Speedy Cut blocks shown here are available in a variety of sizes, are easy to cut, and can be cut on both sides. I bought these at my local art supply store for between \$2 and \$4. They can print all water-based media (no oils!), and can even be printed using water-based markers!

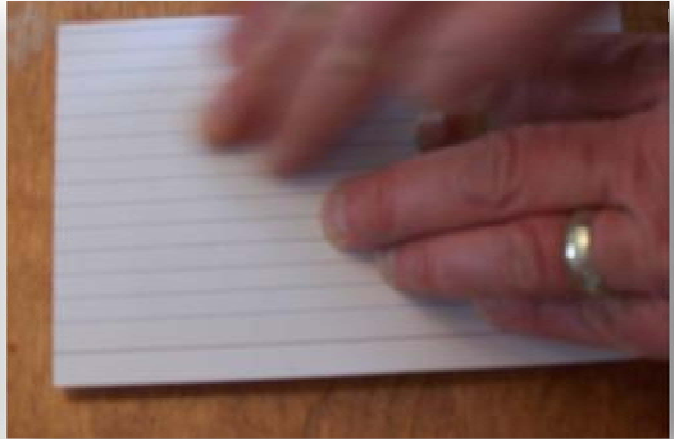
For cutting the block, an inexpensive and versatile choice is the handy Speedball linoleum block cutting tool. This comes with an assortment of bits for different kinds of cuts. The handle doubles as a compartment for storing your bits. *Note: for another way to print without the use of sharp tools, see the section below on printing using art foam.*

The image is drawn on the block, using a pencil or a pen. I found that I had to go over the image again using a permanent marker, as the other marks smudged. Once the image is ready, begin cutting around the image area with the block cutting tools. Remember that you are cutting away the non-image area. What you leave uncut is what will print.



The block is just about ready to be printed. It can be printed at any point; you needn't wait until the block is "perfect" to see how it looks! You can see I colored in a part of the area behind the boy's head, to distinguish the image from the non-image areas.





When you are ready to print the block, ink it by coloring it with a marker or ink pad. To use a marker, use the side of the marker and cover the surface of the block with swift, back-and-forth strokes. Apply your paper to the surface, and holding it steady with one hand, rub the back of the paper with your other hand. I chose to use a simple 4 x 6" index card, but any paper will do.

The finished print. You can continue to work the block, but of course, once material is removed from the block, it cannot be put back! Also, note the reversal of the image. The artist who wishes to use text in a printing block must remember to draw, and cut it, in reverse! The block can be washed by rinsing it in the sink. You can change colors, and continue printing indefinitely.



SESSION 10: PRINTING FROM ART FOAM



If working with sharp cutting tools is frightening to you or is beyond the capabilities of your students, you may want to try this technique for making relief blocks. Here I am using craft foam, purchased here at Target, but widely available in any craft supply store. Fun foam also comes with adhesive backing, making messy glue unnecessary! You will need sturdy backing material such as plywood, pressboard (used here), book binding board, or cardboard, to glue your foam pieces to. Beware corrugated cardboard, though! The bumpy texture will show through! Make sure your backing board is not much bigger than a stamp pad. If it gets too big, it will be difficult to ink.



While the foam sheets usually come in a variety of colors, this is one time that the colors don't matter! A red block will not make a red print, unless you choose that color of ink.

Lay out your design on the sheets using a marker. Cut out your design with regular scissors. Try cutting both positive shapes and negative (holes) for variety.

Glue your pieces to the block in a single layer. I used Gorilla glue for my foam pieces, which will not be activated with water-based colors. This kind of glue should not touch your skin!



Remember I said to draw with a marker? The reason is that a pencil or pen leaves an impression in the foam that will print in reverse. You can use that as a design feature. Draw into the glued shapes with a pencil or ball-point pen. The ink will not penetrate to those marks you made, and will remain paper-white. See the effects in the print at right.

The printing of this block is identical to the Speedy-cut block described above. It can be printed with a stamp pad or a marker.



SESSION 11 & 12: LETTERBOX CONTAINERS



Rubbermaid Servin' Saver
Durable and available in
various sizes.



Rubbermaid Lock-it
Ideal for the rubber gasket
and locking tabs that seal
out moisture.



Camouflage duct tape.
Widely available in
hardware stores. One quick
and easy way to make your
cache that much harder to
spot!



Cleaned-out mayonnaise
jar. It's free, but should be
bleached to clear out the
odor (that could attract
animals).

SESSION 18: LETTERBOX INVITATION

You are invited. . .

To share in an adventure! To seek a hidden treasure...

. . . a Letterbox!

What is a letterbox? It is a cache, or a box that is hidden in a public place. It contains a handmade stamp, and log book for you to print your own stamp, like this:

You will retrieve a clue that we provide. Find it at:

What you need to participate:

A stamp, no bigger than 2 x 3 inches. It can be hand-made or store-bought.

A sketchbook, for you to print any stamps you find.

An ink pad or water-based markers, for you to print with.

Your promise to respect the land around you, to leave no trace that you were there, and to honor our need to keep the letterbox location a secret, so that future "boxers" can find it just as you did.

Good luck, and Happy Hunting!

Signed. . .

You are invited. . .

To share in an adventure! To seek a hidden treasure...

. . . a Letterbox!

What is a letterbox? It is a cache, or a box that is hidden in a public place. It contains a handmade stamp, and log book for you to print your own stamp, like this:

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Your promise to respect the land around you, to leave no trace that you were there, and to honor our need to keep the letterbox location a secret, so that future "boxers" can find it just as you did.

Good luck, and Happy Hunting!

Signed. . .

SUPPLEMENTARY SESSION 1: COMPASS CHALLENGES

From girlscouts today.org:

Cardinal Points

Materials: Compass, start marker (treasure coin), spacious field or room

Goal: To learn how to use a compass, participants should have basic knowledge of the cardinal points (N, NE, E, SE, S, SW, W, NW). This game requires basic knowledge of the cardinal points while using a compass.

Instructions: Select a starting point. Drop the start marker and using the compass follow these directions:

Walk 5 paces to the north, stop

Walk 10 paces to the West, stop

Walk 20 paces to the south, stop

Walk 15 paces to the east, stop

Walk 15 paces to the north, stop

Walk 5 paces to the west, stop

At this point, look down on the ground. You should be at the starting point!

Sixteen Point Compass Game

A circle is marked on the floor and sixteen cards are prepared each giving one of the sixteen compass points. These cards are placed face down on a table. Each of the sixteen players takes one of the cards at random. The umpire finds the player who has picked up the North card and places him anywhere on the circle. On the words, "This is North -- Fall in," the others take up their appropriate places in the circle. After the players have become thoroughly proficient the umpire should take any player (say ESE) place her anywhere in the circle and say.

"This is ESE--Fall in."

Lebanon Hills Regional Park - East

Spring-Summer-Fall Trail Map

Park Hours are 5 a.m. to 10 p.m.
 Equestrian, West and Visitor Center trailheads open 8 a.m. - 10 p.m.

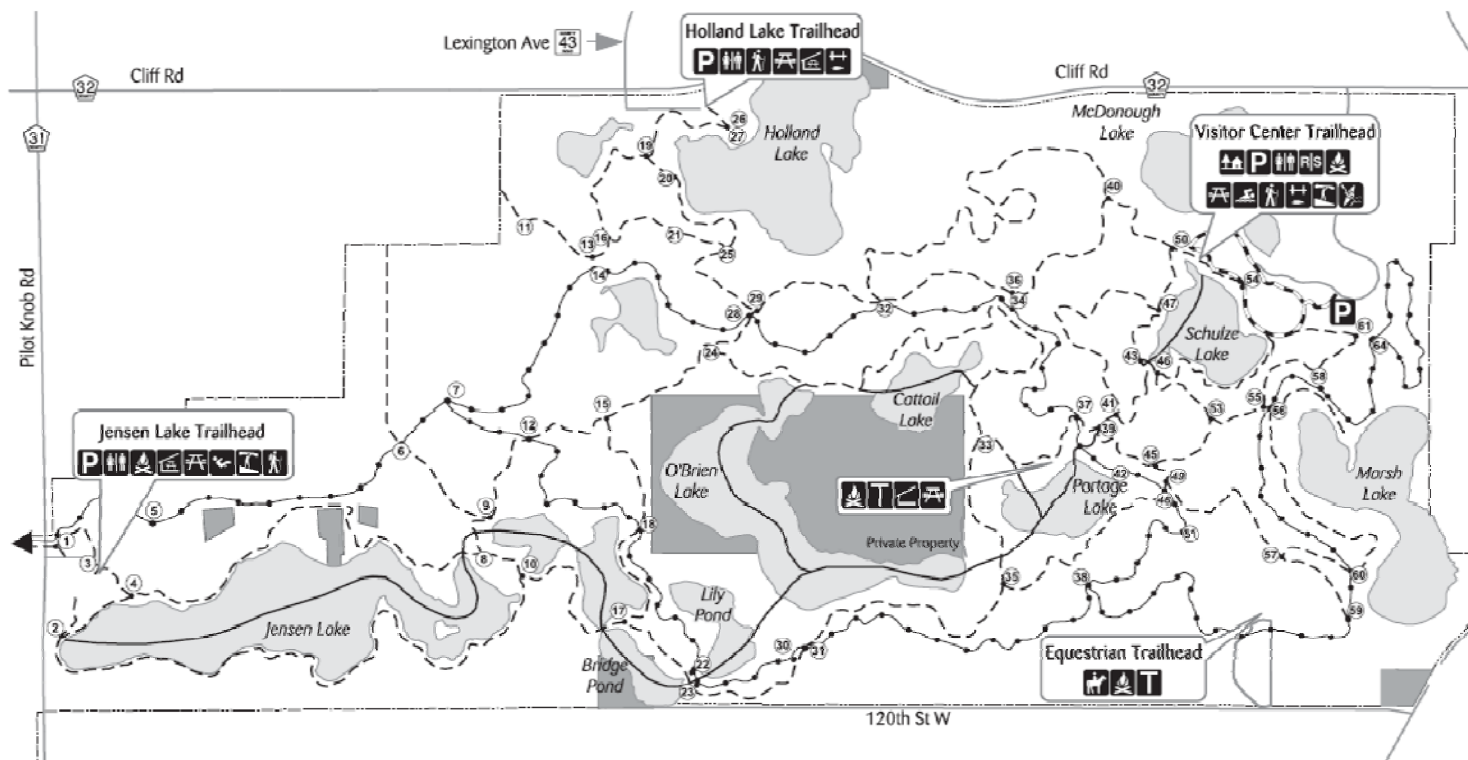
Lebanon Hills Regional Park
 Two thousand acres of woods and lakes make this park a spectacular recreation destination.

Lebanon Hills Regional Park is part of the Dakota County Park System.

Admission and parking are free.

- Features**
- Over 13 miles of nature trails for hiking
 - Almost ten miles of horse trails
 - Over six miles of single-lane mountain bike trails
 - Visitor Center
 - Campground
 - Canoe/kayak rental

- So everyone can enjoy the park...**
- Use trails for their intended purpose.
 - Leashed pets are welcome. Please put pet waste in the garbage.



Legend: Spring - Summer - Fall

Hiking Trails - 14.49 miles
 Equestrian Trails - 9.74 miles
 Paved Trails - 0.63 miles
 Canoe Route - 2.56 miles

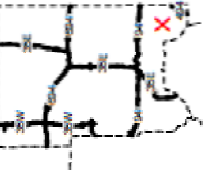
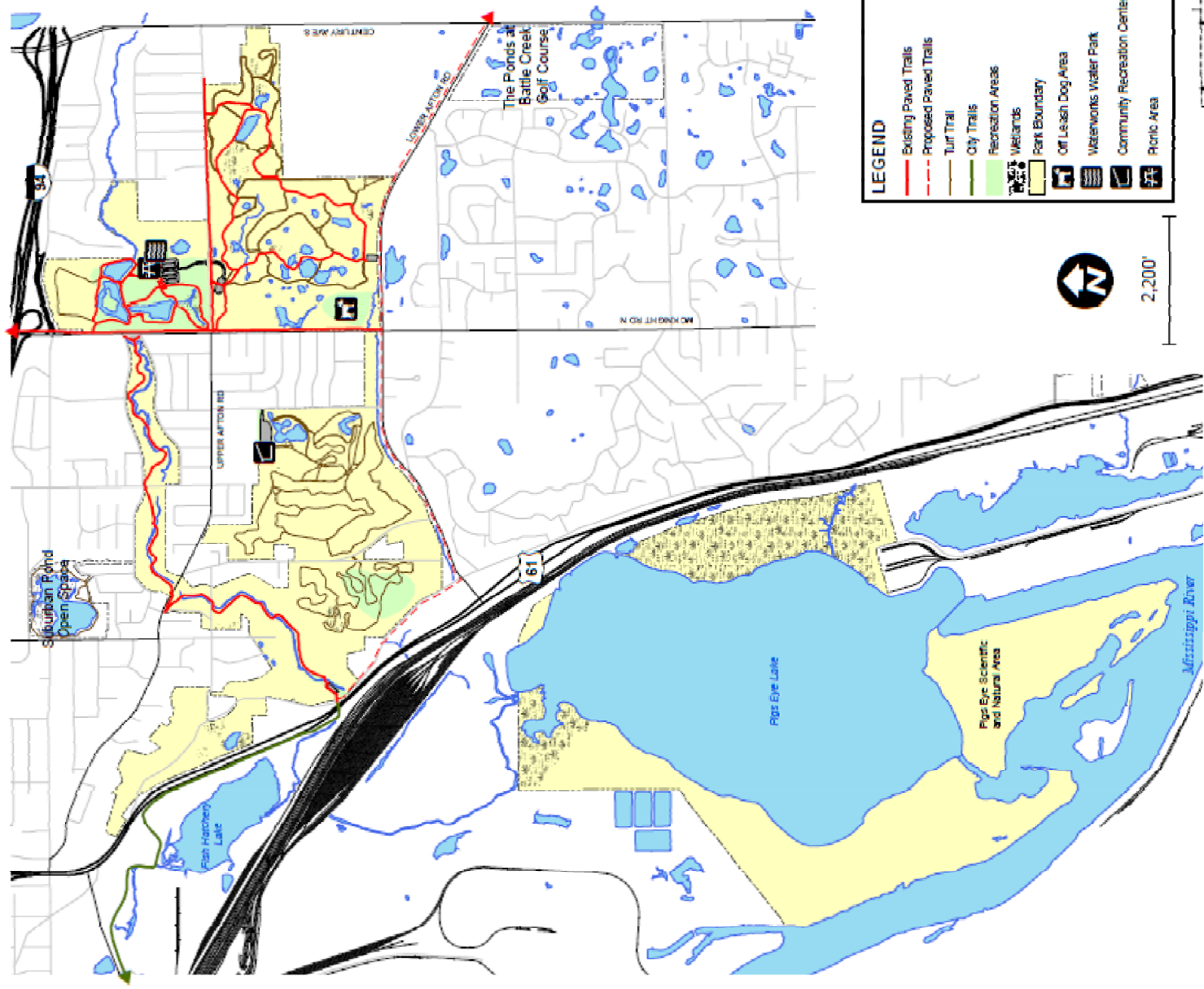
--- Hiking
 --- Equestrian Trail (Pass Required)
 --- Canoe Route
 - - - Paved Trail

- Lebanon Hills Visitor Center
- Parking
- Equestrian Trailer Parking
- Restroom
- Restroom & Shower
- Portable Toilet
- Hiking
- Fire Ring
- Picnic Area
- Picnic Shelter
- Shelter
- Beach
- Playground
- Fishing Pier
- Boat Launch - Non-motorized
- Canoe/Kayak Rental

Park Boundary
 Private Property

www.dakotacounty.us/parks





Battle Creek Regional Park

RECREATION DEVELOPMENT MAP

Ramsey County, MN
 March 2006

LEGEND

	Existing Paved Trails
	Proposed Paved Trails
	Turf Trail
	City Trails
	Recreation Areas
	Wetlands
	Park Boundary
	Off Leash Dog Area
	Waterworks Water Park
	Community Recreation Center
	Picnic Area