

Junior Miniaturist Badge Teen Miniaturist Interest Project Patch

Designed by First State Mini Club (FSMC) of Delaware
for Girl Scouts of Chesapeake Bay Council

Junior Girl Scouts – to complete the Junior Miniaturist Badge complete 6 activities:

Discover - 3 required activities and at least 1 other

Lead – Choose 1 activity

Take Action – Choose 1 activity

Teen Girl Scouts – to complete the Teen Miniaturist IPP complete 8 activities:

Discover - 3 required activities and at least 2 others

Lead – Choose 2 activities

Take Action – Choose 1 activity

DISCOVER (Education / Learning)

1. REQUIRED --Learn about scales used in dollhouse and scale miniaturing and make a 1 inch = 1 foot scale ruler (standard dollhouse scale)– resource booklet provided by First State Mini Club -- then learn to measure accurately.
2. REQUIRED -- Learn to safely cut paper, cardboard, matboard, balsa, basswood and fabric and when and how to use them in miniatures. Resource booklet provided by First State Mini Club
3. REQUIRED - Learn about different kinds of glues, paints and polymer clays and when and how to use each kind. Resource booklet provided by First State Mini Club
4. Visit a museum showing scale miniatures (Delaware Toy and Miniature Museum, Baltimore Museum of Art, Delaware Art Museum Holiday Exhibit)
5. Visit a miniatures show -- resource listing provided by First State Mini Club (FSMC Show in Claymont, DE, other shows at Frederick, MD, Cherry Hill, NJ, etc.).
6. Read two miniatures magazines (old issues of Miniature Collector, Nutshell News now Dollhouse Miniatures, Miniature Gazette, etc., will be available at CBGSC for loan).
7. Learn to safely use a power tool, such as a Dremel variable speed tool.
8. (Teens Only) Learn to electrify a box, room, or other miniature project using batteries or a 12-volt transformer. Resource booklet provided by "First State Mini Club."
9. Check the internet for sites about miniatures (hint: www.miniatures.org). Learn how to download "printables" from free sites, sizing them to 1" scale.
10. Research how lasers are used in making miniatures and find some examples to show your troop (some can be provided by FSMC).
11. Have a professional model-maker; interior, stage, or landscape designer; architect; space planner; cabinet-maker; carpenter; or home builder explain to the troop how they use scale in their work.
12. Visit a miniaturist and talk with them about their collection and/or craft.

LEAD (Demonstration)

13. Create, using found objects, recycled or junk items, a 1" scale room or part of a room in a box.
14. Create, using found objects, recycled or junk items, a 1" scale outdoor scene in a shoe box.
15. Display your project(s) at First State Mini Club Show in the spring. There will be a special category just for Scouts! Or display your project(s) at your local school or library.
16. Donate a miniature that you make to help raise money for a charity's worthy cause.
17. Make a mini gift for a friend or family member.
18. Make a presentation or display to explain the educational value of creating miniature objects. What skills do girls learn and use and why are these skills important? Share your presentation with your troop, service unit or other community group.

TAKE ACTION: (Service Project)

19. Take your finished project(s) to a nursing/retirement/assisted living home to show the residents, and teach them how to make something in miniature.
20. Teach a mini workshop on a topic that you have mastered to introduce girls or adults to the world of miniatures.
21. Organize and host a "wide game" type event to help girls in your area complete this patch.
22. Organize and facilitate a collection of "found objects" in your local area and then host a "mini – challenge event" for girls to build minis out of found objects. Take lots of pictures of the completed projects and share council to publicize your recycling efforts.
23. Create and/or distribute flyers or posters to promote the First State Mini Club Show in the spring (or another show in your area.)
24. After visiting a show or museum, create a display or AV presentation to share what you have learned with others and encourage them to get involved.

Scale

Scale is important in miniatures work because it helps make the parts of a project fit together in a realistic and expected way.

Q: WHAT IS SCALE?

A: In design and miniatures, there are two parts to a definition depending upon whether you are talking about things being "in scale" or "to scale."

1. Scale is the relative size of objects and people. Think of Papa Bear sitting in Baby Bear's chair. They're not "in scale." And think of a dainty teacup and a giant "Mad Hatter" teacup. They're not "in scale," either. We talk about things being "in scale" when they all seem to go together in a normal way. Try putting dishes and cups for a dolls' tea party on a regular table in your house; then put it on a dolls' table. You'll probably agree that everything looks better on the dolls' table, because the pieces are more "in scale" with each other.

2. Scale also is the way to represent objects at other than real (full) size, making them “to scale”. Architects, builders, and designers use scale for the plans that they draw so that other people can build them. They write numbers representing feet as a number with straight mark like an apostrophe after it (e.g., 1', 2', 3') and inch numbers with two marks like quotation marks after them. (e.g., 1", 2", 3"). This is how they write four feet and six inches: 4'-6". They use a dash between the numbers to make sure there's no mistaking feet and inches.

When they draw plans, they use fractions of an inch (such as 1/2", 1/4", 1/8") to represent a foot or some other dimension and write them with = signs to show what they represent. Plans always say what scale they are done in.

Scales like 1/8" = 1'-0" or 1/4" = 1'-0" are used so that the whole side of a house or “footprint” of a room will fit on a large sheet of paper. If the plans for a house were made full-size, for example, think of how big the paper would need to be! Today a lot of plans are done on the computer using scales, too.

Q: DO I NEED SPECIAL PAPER TO PLAN A MINIATURE?

A: You can use regular paper or special paper, called graph paper. But, watch out for graph paper! That's the paper with lots of little squares all over it. Architects and designers use either 4-square (four 1/4" squares per inch) or 8-square graph paper (8 squares of 1/8" equal one inch) because it is easier to divide up dimensions for a foot ruler. Engineers' 10 squares to the inch don't work well with feet and inches because they are for the Metric System.

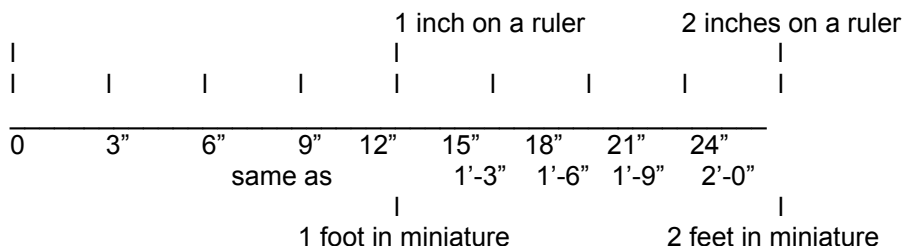
Q: WHAT IS THE MOST COMMON SCALE USED IN MINIATURES?

A: The most common scale is “one inch scale” – also known as 1/12 scale or 1:12. This means that one inch in miniature equals 12 inches (one foot) in real life. It is written: 1" = 1'-0". Most American dollhouses are this scale, and there are many furnishings and accessories available in this scale. People who make their own miniatures use it, too, so that everything looks good together. Some people are making miniatures in smaller scales, but one inch is a good place to begin learning about scale miniatures.

Q: WHERE CAN I GET A SCALE RULER FOR ONE INCH (1/12) SCALE?

A: You can make one easily by taking a standard 12" ruler and covering ALL BUT THE TINIEST PART OF THE NUMBERS with a long piece of masking tape. Be sure to leave the little increment marks show along one edge. Then with a fine tip pen, put in each inch mark with its same number so it will represent feet, then mark the 1/2" inch places as 6". Next mark the quarter inch places. The one on the left in each inch would be half of 6" or 3" and the one on the right would be 9", halfway between 6" and 12" just like on the original ruler. Architects, designers and engineers have their own scale rulers with many scales on them. It's easiest to start with only one scale (1/12).

This will help you think about a ruler and how it's divided up: (The example below is NOT to scale!)



Q. ARE THERE SIMPLE TRICKS TO HELP ME THINK ABOUT 1" SCALE MINIATURES?

- A. Think of things that are about the right size for reference:
- a quarter is a 12" dinner plate, a dime is a salad or dessert plate size
 - the diameter of a pencil is about right for the diameter of cans of food or a daisy
 - measure some life size items and figure out how big they would be in scale.

In real life (life size)	In 1" scale on a regular ruler
6"	1/2"
24" (2'-0")	2"
18" (1'-6")	1 1/2"
3'-9"	3 3/4"
8'-0"	8"
Try 4'-3"	

Note: Beginning miniaturists usually round off measurements to the nearest quarter of an inch in miniature to simplify their work. Later they will see that 1/8" in scale = 1 1/2" in real life; 1/16" in scale is 3/4" in real life, and 1/32" in scale is 3/8" in real life. Fine scale miniatures are that precise!

Miniaturists Tools and their safe use

Miniaturists use tools of all kinds to cut, drill, and sand their projects. Safety is important to consider since injury could occur that could lead to infection or worse. In all situations, one needs to consider safely handling, carrying, and storing sharp tools. Hand tools and power tools need to be used with respect and caution, with the correct sharpness, cutting boards, etc. A small first aid kit kept close by is also handy with rubbing alcohol, antiseptic and Band-Aids; but let's try to work without injury. Advanced miniaturists, when using power cutting, drilling and sanding tools, should remember that they rotate at very high speeds so anything that could get tangled is a danger. Tie back long hair; remove bracelets, necklaces or loose clothing. Do not wear gloves with power drills or saws. And always have an experienced adult to supervise use of all tools. Many miniaturists use very simple tools: a craft knife, ruler, some clamps, scissors, a cutting board, hand drills and sandpaper.

Q: WHAT TOOLS DO I NEED TO MAKE MINIATURES?

A: Let's start with "tools that cut". They include hand tools and electric tools, scissors, craft knives (X-Acto is a brand), files, sandpaper, saws, drills, etc. To do a clean, neat job the tools need to be clean and sharp. If the blades are dull, one puts more effort into using them with the possibility of the blade breaking or the hand sliding down the handle and onto the blade.

Sharp-bladed tools should be stored with the blades covered, such as using a cork into which one can push the point of an X-Acto knife blade. There should be a cutting board that is thick but softer than the metal blade. Wood, plastic, or the "healing" rubbery mats that quilters use are good cutting boards. Many are available at fabric and craft supply stores. Cardboard or a thick stack of newspapers works, too.

Q: HOW DO I USE VARIOUS TOOLS THAT CUT?

A: **Cutting with scissors** is safest if the hand holding the item to be cut does most of the manipulating of the material so that the scissors are held mainly straight away from the body. A clean cut occurs if the blade is held to the outside right side of the line and the waste is still farther to the right (for right handers).

Cutting with a craft knife should be done on a mat (above). The mat should be soft to keep the knife sharp but must be thick enough to protect the surface of your table. The #11 pointed blade is most useful

for miniatures but it requires care in its use. To cut a straight line, a metal ruler with a cork back is most effective; the metal lets the X-Acto blade slide from an outstretched position as the knife is drawn toward you and the cork helps keep the ruler from moving. Start in a standing position at a counter (or table if you are shorter than 5' tall) so that you can see the whole line you want to cut, and put pressure on the ruler pushing evenly straight down to the table. Paper or thin cardboard will be cut on the first pass. Plan to cut part way through foam-core or mat board on the first pass by reaching out, starting the cut and drawing the knife toward you. You will not be putting so much force that could also move the ruler. Then repeat the pass with the knife (with or without the ruler) several times until the material is cut all the way through. If you are cutting a curved line, draw the line in pencil, hold the material on the table/mat, cut slowly and part way through the material, drawing the knife toward you. Change the blade when it seems dull.

Cutting with a hand jigsaw: use a fine blade (thin with small teeth that point toward the handle) in a jigsaw to cut thin basswood. A simple "bird" can be made to C-clamp to the worktable and this will support the wood to be cut and let the jig saw rotate beneath the work. The "bird" is a smooth scrap board about 3" to 6" wide and 10 to 18" long and about ½" thick. At one end of the board, a 3" to 6" V is cut with a small ½" circle cut out at the inner point of the V. C-clamp the other end of the "bird" to the work table. Hold the wood to be cut on the bird's "mouth" or V and use the jig saw with the blade above the handle and saw while stroking downward toward the surface of the bird. This bird permits you to turn the work as well as turn the handle of the jigsaw to make intricate cuts. The saw will make turns two times the size of the width of the blade so the thinner the blade, the finer the curve of the cut possible. Generally, draw a fine pencil line and cut through the line. The bird can also be used to hold wood while using a fine file to sand the work, putting pressure for the sanding in a downward direction.

Q: HOW DO I USE TOOLS THAT DRILL?

A: **Drilling with hand tools.** A gouge, small nail, a hatpin or T pin can be used to mark (dent) the hole to be drilled and to start a hole that guides the drill bit. A **Pin vise** is a small hand tool that has a clamp at one end to hold a very fine drill bit. To drill, the work surface needs a protective mat (described above) placed below the item to be drilled. The pin vise is held vertical to the work and cuts as the vise is rotated and pushed downward at the same time. Usually the thumb and middle finger do the rotating and the index pushes downward. A **hand drill** that has a side crank can be used but on fine work does best with the starter hole fairly deep to control where the drill goes. There are larger drills but they are too large for most miniature projects. **Power drills** that are hand held will require the item to be clamped down, often hard with the item so small. **Drill presses** are helpful for accurate straight vertical holes since the drill is held by a stand, permitting one hand to hold the item and one to lower the drill bit. These should be used with hair held back, long sleeves rolled up and no dangling jewelry or gloves worn.

Q: WHAT DO I NEED TO KNOW ABOUT TOOLS THAT SAND?

A: For **hand sanding:** A common **emery board** is useful for sanding the edges and corners of tiny objects. **Sand paper** and a **sanding block** are also useful. Placing sand paper around a round dowel makes a good sander for reaching inside curves of furniture projects. The finer the grit, the larger the number of the sand paper. Commonly #220 and #400 and finer are used with miniatures. Reddish papers, "garnets," work best with wood. The white sand papers, "silica sand," work well with plastics, fibers, china, porcelain, etc. The black sand papers "wet-dry" are good with glass, metals, acrylic enamels and car surfaces. Metal files, including fingernail files, are available in very tiny sizes and work best on things other than wood.

Q: WHAT IS A LATHE?

A: This is a more advanced electric tool that holds wood (and other materials) to be turned while the worker files, sands and finishes circular bowls, or spindles for legs of a table etc. This is an advanced tool usually learned from a wood worker or in a class.

Q: WHAT IS THE MOST VERSATILE TOOL FOR MINIATURE WORK?

A “**Moto-Tool**” (Dremel is a brand) is a power tool that is either electric or battery operated, hand-held with a variety of accessories permitting it to drill, burr, sand with a disk attachment, and cut with various blades. The hand-held device can have supportive stands to make it function as a drill press and router. For miniature projects, it is fun and quick. Again, tie up long hair, no gloves, no dangling jewelry, wear eye protection and if sanding, use a face mask to repel debris. This is essential if sanding wood or metal. A respirator is recommended to filter out the dust if sanding porcelain (which has similar fibers found in asbestos), plastics (heat emits a vapor that is toxic) and other lung irritating materials. There are weighted clamp bases or vises available that give the operator more grasp and support while doing the sanding for repeated activities.

Q: WHAT TOOLS ARE NEEDED TO MEASURE ACCURATELY?

A: **cork-backed ruler**, 12” or 18” long, marked in 1/16” intervals is essential. The metal permits using with a sharp knife and the cork keeps it from sliding while pressure is put against it. A 6” plastic clear ruler helps with really tiny measurements. It is possible to find rulers that measure in the 1:12 scale but they are specialty items. Nice, but not necessary, are rulers that extend like an “L” to help with inside measurements of boxes, etc.

Pencils to use include a mechanical pencil with thin lead because it remains sharp. A regular pencil is fine if frequently sharpened. Marking wood lightly with pencil is important so that there is no indentation in wood or cardboard, and no stain, as a pen would make.

Other helpful tools are **triangles** and **T-squares**: a 6” or 12” long square is useful to get crisp right angles on boxes, tables and things that must be 90 degrees. Also helpful are **calipers**, which are like compasses in that they are a hinged “V” that can assist with comparing sizes. Calipers are used when making chair or table legs on a lathe to make sure that all the legs match.

Q: HOW ABOUT TOOLS TO HELP WITH GLUEING?

A: **Clamps**: Anything that holds things together while glue dries can be used. Rubber bands, clothespins, binder clips, paper clips, and “alligator clips” may be found around the house. There is a pistol-closing clamp (6”, 12” and bigger with an opening that is about 3” deep). The 6” version is very helpful to miniaturists. There are “C” clamps that go from ½” opening to about 6”. There are furniture bar clamps that are to hold full sized furniture but may be used to build a room box.

Jigs: These are things that help hold an item while cutting, filing and gluing. To make a 90 degree corner on furniture stay straight, take 10 or so Lego blocks bricked into a corner shape and then place the miniature corner item to be glued against them. There also are jigs made of metal and magnet blocks are used to hold the item straight.

HAVE FUN AND BE SAFE AS YOU WORK ON YOUR MINIS!

Glue

Q. THERE ARE SO MANY TYPES OF GLUES AVAILABLE, HOW DO I KNOW WHAT TO USE AND WHEN?

A. Types of Glues:

Glues are generally either water-based or non-water-based. Beyond that, there is a wide range of options. Scouts will probably want to concentrate on the water-based ones.

- ❖ **White glue:** This is a basic, starter glue, one of the best to begin a project with when doing miniatures. It is water-based for easy clean-up, dries clear to be invisible. It is relatively inexpensive and lasts a long time, especially when used sparingly, as it should when used in miniature work. White glue can bond a wide range of materials including paper, wood, ceramics, fabric, etc. However, care should be used in selecting which specific white glue to use. While Elmer's may be familiar, it is thin and doesn't set up as quickly as Aleene's Tacky Glue or Sobo Glue.
- ❖ **Wood glue:** When working with some wood projects, white glue can be okay to use. However, there are times when it may not be appropriate. For example, it is water-based. So, if you are working with very thin wood, it may cause the wood to warp. Also, if you are building a furniture kit, white glue will always have a little bit of "flex" left to it, which is not something you want your furniture to have! Therefore, you probably want to use a good wood glue for this. But be careful. Wood glue does age and break down, even in the bottle. Be sure to purchase your wood glue from a store where you feel the supply will be fresh. If the glue makes "strings" when you pull it out, it is old. Be very careful where you use it, also. It will not take a stain so do not get any on the wood other than where you want the joint to be. It's hard to sand miniature pieces to get rid of glue.
- ❖ **Clear glues:** Many are available. These are the thicker, gooey, glues one is tempted to turn to when dealing with items where white glue may not work, such as glass, metal, jewels, etc. These glues do tend to dry out in the tube, be goopy and sticky, hard to apply and expensive. Unfortunately, at times they may be necessary. Some of the better ones are GRIIP, YES, OmniStick (was Quick Grab), Crafter's Gloop, E6000. Read and follow all directions carefully due to fumes, etc.
- ❖ **Superglues:** Also called cyanoacrylates (CAs). While it would be nice to say: DON'T USE THEM, some miniaturists do at one time or another. So, if you must, do try to use the gel version. It is the most controllable. Keep acetone or nail polish remover containing acetone *at hand* (not in the closet somewhere) so you can immediately apply it if you have an accident. Use it to remove the glue as quickly as you can to minimize irritation and subsequent problems – unless it is in or near your eyes, in which case, simply seek medical attention immediately!! It has been reported that crafters using a lot of CAs have become allergic to them, so be careful! If you must use it, use superglue sparingly. It will not set properly otherwise. Sometimes it is used (just a dot) in conjunction with tacky glue (more of it) to provide a quick grab while the tacky will provide the more permanent bond.
- ❖ **Wallpaper paste:** regular, full size wallpaper paste is thick and difficult to use with papers made for miniatures. A better choice would be Grandma Stover's Wallpaper Glue or Yes Glue. They stick things flat and don't wrinkle paper.
- ❖ **Epoxy:** For those super-difficult situations, a two-part epoxy may be needed to mix and adhere certain items together. Always read and follow all label directions.
- ❖ **Contact cement:** Do not use for projects you want to keep a long time as they tend to dry up, discolor, peel off and may ruin whatever you've tried to use it on.

- ❖ **Glue guns:** Another do not use. These are not really glues, but a wax that is melted and then resets. What melts once will melt again. Also, the flow from a glue gun is much too thick and uncontrolled for miniature work. Additionally, there is the real danger of burning yourself trying to work in tight quarters with a glue gun and miniatures.
- ❖ **Glue dots:** These are preformed, flat dabs of glue on a roll, usually available at craft stores in the scrapbooking section. They come in several sizes and can be either permanent or removable. Though they are a bit pricey, for the job they do, they are well worth it. Use with caution, though. When they say permanent, they mean it! So if you are using these to affix an item to, say, the wall of a scene, make sure it is *exactly* where you want it before pressing into place -- you will destroy it if you try to remove it to change the location.
- ❖ **Specialty glues:** Although a Tacky Glue will do most of the things a beginning miniaturist needs, these are some of the special ones that you may want to acquire along the way as you become more involved in the miniature world. For example:
 - Foam glue
 - Fray stop
 - Gem glue
 - Decoupage glue
 - Leather glue
 - Fabric stiffening

Q. ARE THERE SUGGESTIONS FOR APPLYING GLUES?

Glue needs to be applied as minimally as possible in the miniature world. This can be done in several ways.

- ❖ **Toothpicks:** In any shape, size or form, from the normal boxes in the supermarket, to the big one used to hold our triple-decker sandwich together, these wood sticks work as well as anything to put glue where we want it. Don't be stingy with them. If the glue starts to gum one up, just toss it and grab another right away, before you make a mess.
- ❖ **Glue syringe:** These are available in craft stores, miniature shows, or on-line. These should only be used for water-based glues. Keep the tip covered with a damp paper towel if there are long intervals between glue applications. You don't have to empty the syringe when you quit if you can seal the end from air. (Try those plastic thingies that hold price tags to garments. Cut the skinny little end off and keep a long piece of the connecting plastic. Paint the fat end with a sharpie pen so that you can find it if laid down on table. Stick the connector piece into the end of the syringe to store.) To clean out the syringe, remove as much glue as possible, then soak it in warm water. When the glue is soft, simply pull the plunger out and let fill with warm water. Replace plunger and squirt water out. Repeat until clean.
- ❖ **Squeezable paint bottle:** Craft stores now sell fabric paints for decorating T-shirts. Sometimes, at the bottom of the display, they sell empty squeeze bottles. There is a 2 oz. size and a 4 oz. size. They have a label on them so you can write on them (Sharpie Pen) with the bottle contents. They have a snap on cap that fits tightly to the end of the tube. They are soft to squeeze. If they don't have the empties, you can buy a bottle of paint for under \$2, empty it and clean it out for about what you pay for a glue syringe.
- ❖ **Hatpins:** Or any other type of pin, such as a corsage pin, quilting pin, etc. Stainless steel are best since they don't rust.
- ❖ **Glue applicators:** These are short plastic sticks in several different thicknesses, with "fuzzy" tips for applying glue to small areas.

Q. IF I DON'T WANT TO PERMANENTLY GLUE MINIATURES INTO MY SCENE, WHAT DO I USE?

A. Here is a list of various products that are temporary adhesives.

Mini-hold	Blue-tac
Moveable Miniature Glue	Museum Wax
Grip Wax	Fimo
Sticky Tack	Quake Wax
Understickum	Fun Tack
Floral Tape	TackIt (Aleene's)

Please be aware that any of the wax products may have the same problem as the glue gun – wax can melt under high heat circumstances and not only cause your object to break free, but melting wax can discolor whatever it is sticking to. A few of the other products have also been reported to have problems with marring wallpaper or tearing wallpaper if you later try to remove an item. Always test first if you have a concern.

Q. ARE THERE ANY GLUE INFORMATION RESOURCES?

A: The following links may give you additional information on which glues are good for what purposes:

www.thisisthat.com/

www.tinyurl.com/2lkpc

and “Keeping It Together: A Glue Primer” Dollhouse Miniatures, December 2005, pp. 17 – 19 is an excellent discussion by Larry Marshall of many kinds of glue.

Miniature Museums

Q: WHERE CAN I SEE MINIATURES DISPLAYED IN MUSEUMS?

A: There are museums devoted solely to miniatures and toys (such as the Delaware Toy and Miniature Museum) and others that have some collections of miniature vignettes and dioramas, miniatures, dolls, doll houses, and toys. The following museums have been suggested for your information. Always call before going to verify hours of operation, admission charges, and what kinds of miniatures the museum has on display. Some museums only display miniatures and dollhouses during the winter holidays; others are closed for part of the year or are open by appointment only.

ARIZONA

Phoenix Art Museum

1625 N. Central Avenue
Phoenix, AZ 85004 602- 257-1222

CALIFORNIA

Angels Attic Museum

(will reopen in 2008 at a new location)
Santa Monica, CA 310 - 394 – 8331

COLORADO

The Denver Museum of Miniatures, Dolls and Toys

1880 Gaylord Street Denver, CO 80206
303 – 322 – 1053

DELAWARE

Delaware Art Museum

2301 Kentmere Parkway
Wilmington, DE 19801
302-571-9590

has an annual exhibition called *Masterpieces in Miniature* that runs from the beginning of November through the first week of January.

Historical Society of Delaware

505 Market Street
Wilmington, DE 19801
302 – 655 – 7161

(call first to ask if the dollhouses and/or miniatures are on display)

Winterthur Museum and Country Estate

Route 52
Winterthur, DE 19735
302 – 888 – 4600

(ask if the four Kupjack miniature rooms including the Montmorency Staircase are available to see)

FLORIDA

Miniature Art and Presidents Museum

123 N. Highway 27
Clermont, Florida 34711

Naples Museum of Art at Philharmonic Center

5833 Pelican Bay Blvd.
Naples, FL 34108

800 - 597 – 1900

(New Home of much of the Carole and Barry Kaye Collection)

ILLINOIS

The Art Institute of Chicago

111 South Michigan Avenue
Chicago, IL 60603
312-443-3600

(The Thorne Rooms are arguably the most important collection of miniatures in the world!)

Museum of Science and Industry

57th Street and Lake Shore Drive
Chicago, IL 60637

773 – 684 – 1414

(Colleen Moore's Fairy Castle is spectacular)

INDIANA

Museum of Miniature Houses and Other Collections

111 East Main Street
Carmel, IN 46032
317- 575 – 9466

National Association of Miniature Enthusiasts Museum

130 N. Rangeline Rd.
Carmel, IN 46032
800-571-6263

KENTUCKY

The Kentucky Gateway Museum Center

215 Sutton St.
Maysville, KY 41056

MARYLAND

Antique Dollhouse and Toy Museum

22 Read Street
Baltimore, MD 21742
410-250-0580

MICHIGAN

Miniatures Trust Museum at the Gilmore Car Museum

1811 Four Mile Road
Grand Rapids, MI 49525
616-447-3319

MISSOURI

Miniature Museum of Greater St. Louis

4746 Gravois Avenue
St. Louis, MO 63116
314 – 832 – 7790

Toy and Miniature Museum of Kansas City

5235 Oak Street
Kansas City, MO 64112
816 – 333 – 2055

NEBRASKA

The Kruger Collection

University of Nebraska, College of Architecture
133 Architecture Hall
Lincoln, NE 68588
402 – 472 – 3560

NEW JERSEY

Red Mill Museum Village

56 Main Street
Clinton, NJ 08809
908 – 735 – 4101

NEW YORK

Museum of the City of New York

1220 Fifth Avenue at 103rd St.
New York, NY
212 – 534 – 1672

OHIO

Rutherford B. Hayes Presidential Center/Library

Speigel Grove
Hayes and Buckland Avenues
Fremont, OH 43420
419 – 332 – 2081

TEXAS

Texas Miniature Museum

North Sweeten Street on the Square
Rocksprings, TX
713 – 515 - 2780

VERMONT

Shelburne Museum
U.S. Route 7, PO Box 10
Shelburne, VT 05482
802 – 985 – 3346
(dollhouses in “Variety Unit”)

VIRGINIA

The Abby Aldrich Rockefeller Folk Art Center
Colonial Williamsburg
325 Francis Street
Williamsburg, VA 23185
800 – 603 – 0948

Holly’s Follies Museum of Fine Miniatures
30 Bayberry Lane
Lexington, VA 24450
540 - 464 – 3225
(Hours by appointment)

Miniature Shows, Sales and Exhibitions

Q: WHERE CAN I SEE MINIATURES BESIDES IN MUSEUMS AND STORES?

A: There are many good miniatures shows and sales all across the country. Watch your local newspaper for dates and times of shows in your area. Dollhouse and miniature magazines such as American Miniaturist (www.americanminiaturist.com) usually have listings as well. Always call or check the website of shows before going as dates and locations often change. Here just a few.

International Guild of Miniature Artisans Teaneck, NJ
www.igma.org

First State Mini Club Annual Show and Sale Claymont, DE
www.firststateminiclub.org

Chicago International Miniatures Show and Sale Chicago, IL
www.bishopshow.com

Fall Reading Area Dollhouse Miniatures Show & Sale Morgantown, PA
www.geocities.com/dollhouseshow

Tysons Corner Fall Festival McLean, VA
www.mollycromwell.com

Frederick Dollhouse Miniature Sale. Frederick, MD
www.miniaturefairs.com

Philadelphia Miniaturia Cherry Hill, NJ
www.philadelphiaminiaturia.com

Lighting and Electricity

Q: I'VE ALWAYS BEEN "RESPECTFUL" OF ELECTRICITY IN MY HOUSE. IS MINI ELECTRICITY DIFFERENT?

A: Mini electricity usually is 12 volts, instead of 110 volts as in your full-scale home. Therefore it is "weaker" and less likely to shock you. HOWEVER, WHEN WORKING WITH ELECTRICITY, BE SURE TO HAVE THE SUPERVISION OF A RESPONSIBLE AND KNOWLEDGEABLE ADULT! If your Scout leader(s) need some help with this, perhaps someone from a local miniatures club or shop may be able to demonstrate mini electricity and answer questions.

Q: WHAT DO I NEED TO ELECTRIFY A DIORAMA, ROOMBOX OR DOLLHOUSE?

A: The easiest way is to use tape wire with a 12-volt transformer with enough wattage to power the number of lights you want to use. You'll need some 12-volt miniature lights (lamps, light fixtures, chandeliers, etc.), You also can use regular "round wire" (see below). Then, you'd need solder or solder tabs, a soldering iron or safety matches, and other small materials specific to mini lighting.

Also, a night light (small wattage) can be used for indirect lighting, but be careful of the heat it will generate near any flammable materials. Remember that night lights are full-scale electricity, not 12-volts.

Q: WHAT IS TAPEWIRE AND ROUNDWIRE?

A: Tape wire is adhesive, foil-like and flat, made especially for miniatures. It will be almost invisible under wallpaper, while round wire is regular insulated wire that usually needs a channel made to hide it.

Q: CAN I USE BATTERIES TO LIGHT MINI LIGHTS?

A: Some Christmas lights are battery powered and useful for minis. A battery holder with 8 AA batteries gives 12 volts of electricity and will light several miniature lamps.

Q: HOW DO I KNOW WHAT SIZE TRANSFORMER TO USE?

A: Miniature lighting is usually labeled with how many milliamps it needs. Typical individual lights are 65 milliamps (ma). Fluorette (miniature fluorescent-looking lights) sometimes are 150 milliamps each. Transformers will be labeled 3 watts (300 milliamps), 10 watts (1000 milliamps), etc. So add up the milliamps of all your individual lighting fixtures to decide what size transformer you need.

Q: WHERE CAN I GET MINIATURE LIGHTING?

A: Miniature lighting is available at miniatures shops and shows, as well as some crafts stores, by mail order (see Hobby Builders Supply catalog www.miniatures.com , for example), and at other internet sites. Electronics stores have 12 volt light bulbs and receptacles and transformers not specifically made for miniatures, but sometimes usable.

Q: HOW MUCH DOES MINIATURE LIGHTING COST?

A: Depending upon size, transformers range from about \$12 to \$30, while lighting fixtures and lamps cost from \$ 6 - \$10 at discount craft stores to hundreds of dollars. Most mini lighting components are marketed by the Cir-Kit Company.

Q: WHEN IS THE BEST TIME TO WIRE A DOLLHOUSE?

A: Before you finish the walls and floors so wires or tape can be concealed. Be sure to make a diagram showing wiring for later reference (for example, if your tape wire is one inch above the floor level, running

around two sides of a miniature room, your diagram or notes should state that. Someday you may wonder where the current is behind your wallpaper when you want to add a new light.

Q: ARE THERE REFERENCES ABOUT LIGHTING MINIATURES?

A: The Cir-Kit Company provides information with its lighting kits and there is information on their website: www.cirkit.com. Also a useful book for novices is Barbara Warner's Dollhouse Lighting: Electrification in Miniature.

See also Dollhouse Miniatures Magazine, May 2007, pp 54-57 for "Wiring your Projects for Lights" by Grace Shaw (with help from Gerry Schipper).

Lasers and Miniatures

Q: WHAT IS A LASER?

A: A laser is a very strong, concentrated beam of light, used in medicine, science, industry and in creating miniature components. Lasers are in CD and DVD players and bar code scanners, but they also cut.

Q: HOW HAVE LASERS IMPACTED MINIATURES?

A: In the past, small and delicate patterns were done with jigsaws and jewelers' saws. Today much, much smaller work is possible by using lasers.

Q: WHAT MATERIALS DO LASERS CUT?

A: Paper (for flower and plant parts, for example), cardboard, matboard, leather, marble, plastics, acrylics, melamine, cork, rubber stamps, metals (for miniature furniture, building components, and accessories).

Q: WHAT MAKES THE LASER CUT AND HOW DOES IT KNOW WHERE TO CUT?

A: A pattern is made using a computer drawing program, and instead of sending it to a printer, it is sent to the laser. Lasers cut by using their beam of light to burn where there is a dark line or area in the drawing. They can be set to burn lightly, partially (maybe halfway through), or deeply (all the way through). Lasers can make miniature items look like they are carved or engraved.

Q: WHY DOES LASER-CUT WOOD AND PAPER HAVE A CHARACTERISTIC BROWN EDGE?

A: Because it is burned by the laser's beam.

Q: ARE LASERS EXPENSIVE?

A: Yes, very – that's why few people have them today.

Miniatures and the Internet

Q. WHERE CAN I FIND MINIATURES ON THE INTERNET?

A. For general information, go to:

www.miniatures.org – site of National Association of Miniature Enthusiasts (NAME).

www.igma.org – site of International Guild of Miniature Artisans

www.nationalminiaturestrust.org – site of National Miniatures Trust

www.firststateminiclub.org - First State Mini Club members are members of NAME. The Club is C-150, located in the Wilmington, DE area.

www.nameregione1.org - NAME's Region E-1 comprises DC, Maryland, Virginia, and part of West Virginia.

www.nameregione3.org – NAME'S Region E-3 is made up of Alabama, Florida, Georgia, North and South Carolina and Tennessee

Q. WHERE CAN I BUY MINIATURES ON THE WEB?

A. Several sites to try are listed below. There are literally thousands of possibilities.

www.miniatures.com

www.miniaturebuilder.com

www.dollhouse-miniatures.com/catalog/enter.html

Q. ARE THERE MINIATURE PRINTABLES ON THE WEB?

A. www.printies.homestead.com/
www.printmini.com/printables/
www.paperminis.com/
www.kawarthalakesminis.com/printables1.html/ -- free printable wallpaper
www.easyprinties@coolist.com

Q. ARE THERE ANY MINIATURES GROUPS ONLINE?

A: www.smallstuffarchives.com Small Stuff Digest has mini chats and lots of information.
www.miniatures.org/ The National Association of Miniature Enthusiasts (NAME) has an online group open to NAME members

Q. CAN I FIND OUT ONLINE ABOUT MINIATURES SHOWS/SALES?

A. Some of the biggest and best in the East are:

IGMA www.igma.org

Philadelphia Miniaturia – www.philadelphiaminiaturia.com

Tom Bishop's shows – www.bishopshow.com

Molly Cromwell's shows – www.mollycromwell.com

Frank Moroz's shows – www.miniaturefairs.com

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