

Pathfinder Honour:

Trainer's Notes

String Art 1



Instructions to Trainers / Instructors of this Honour

Thankyou for being involved with this Honour. These notes have been developed to assist in teaching / instructing this honour. We recognise that there is much more information available and we are grateful that you should share your expertise.

Please remember that Honours are designed to develop our Pathfinders in many ways; their interests, their knowledge and their relationship with their Saviour and Creator. Your enthusiasm and creativity will have a huge impact on those doing the honour.

To complete an Honour, the following (where applicable) must be completed satisfactorily:

- Physical and Practical Requirements.
- Honour Workbook.
- Honour Assessment Sheet. (On SPD Honour Website but Leader's level access is required)

Additional Reference Material

Acknowledgements

http://en.wikibooks.org/wiki/Adventist Youth Honors Answer Book/Arts and Crafts/String Art

These notes are based on this excellent site. Other citations are listed in the following text. Please be aware that the content of the above site and any other sites is beyond the control of the SPD.

BEFORE YOU START

This honour requires the use of basic materials and tools. Please remember that this is what we call 'entry level'. Objectives are to give exposure to the art, to create another interest and to develop creativity and physical skills.

When we first did the honour, we succumbed to the temptation of creating something special when we saw the spectacular designs on offer. Earning the honour required a huge effort by our Pathfinders. Most of them stayed the course, but were totally 'over it' at the end.

So a word of advice; don't dilute our honour standards, but **KEEP IT SIMPLE.**

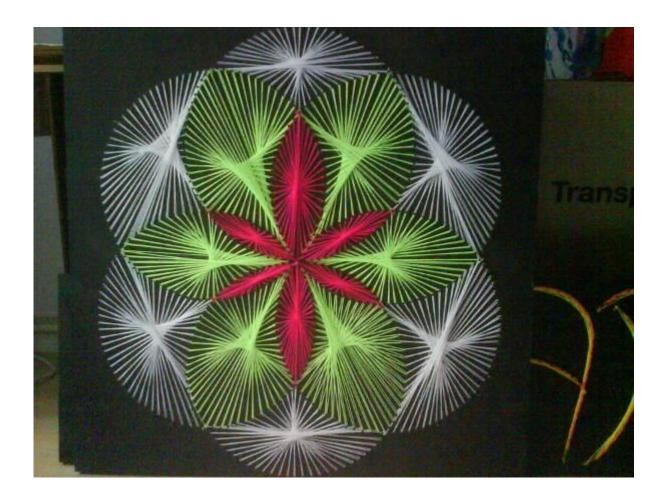
REQUIREMENT 1: Describe what is meant by the word 'string art'.

For the purpose of this honour, 'string art' describes the creation of eye-catching designs and representations using string (or similar). The 'string' is strung between a series of pins or holes on what we call a base.

The result is a fascinating design which contain curves and other interesting shapes.

Any shape can be created. As an example, the picture is a geometric design by Leviha called *'Flower in the Snow'*: http://leviha.deviantart.com/art/Flower-in-Snow-String-Art-211124415

Check out the creativity and diversity of string art at the following: https://www.google.com.au/search?q=string+art&tbm=isch&tbo=u&source=univ&sa=X&ei=CkPUUqrOJsOiigfJ6IH QCg&ved=0CCkQsAQ&biw=1536&bih=676



REQUIREMENT 2: List the basic materials and resources that are needed to create a String Art 'masterpiece'

The beauty of String Art is that simple materials and basic tools are all that is required to get started. These, if not already lying around as junk, can be readily obtained.

String.

This can be string (literally) or anything that serves the function of string. The only criterion is that it must be strong enough to be placed in tension. Some examples of 'string' include: wire that is easily worked (tie wire, copper wire, fuse wire etc), yarn, cotton thread, rope, knitting wool.

<u>Hint</u>. Old electric motors are great source of copper wire. Just dismantle the motor and there it is!

Base Board.

If intending to use pins / nails to support the string, examples include plywood, MDF, chipboard, solid timber, cork tiles etc. A minimum thickness of 12mm is recommended.

Alternatively, if it is not intended to use pins or nails, use a base made of cardboard (or similar material) into which holes are created at the pin / nail locations. Unsure that it is strong enough to resist bending when the string is threaded through the holes.

Nails / Pins.

These include anything serves the function of a post – something to support the string. Examples include sturdy pins, nails and dowels (if you are really keen!) A length of about 18mm is OK for nails.

Base-Board Covering.

The simplest covering is paint of a colour and texture which shows off the string to the best advantage. Note that the nails / pins are usually painted the same colour. Alternative coverings include cloth, metal foil (ie aluminium, brass etc).

If paint is not being used as a covering, don't forget to include glue of some other adhesive device.

Tools.

'Tools' include hammers, pliers (preferable long-nosed to hold the nails / pins while hammering them in the board), measuring devices (tape measure, ruler), pencils, dividers (to make the separation of the pins equidistant).

Design / Pattern.

Develop your own or use one that already tried and tested. See the final page of these notes for a list of resources.

In addition to this we have compiled a document called 'String Art 1 Honour Trainer's Notes_Basic Patterns.docx'. This document has some basic designs and is of A4 size.

<u>Hint</u>: Usual practice is to place the pattern on the base-board and drive the pins / nails through the appropriate places.

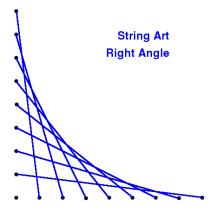
REQUIREMENT 3: Draw and stitch on cardboard in equally spaced points:

The objectives of this requirement are to give an introduction to some of the basic building blocks of string art. In addition to this, another technique of string art is introduced. Pins / nails are not used. Instead the string is inserted through holes in the base. In this case, a sturdy piece of cardboard is used.

Note the differences in the shape of the curve for the Right Angle (ie 90 degrees), Acute Angle (less than 90 degrees) and the Obtuse Angle (greater than 90 degrees)

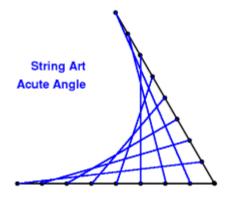
a. A right angle

Picture: http://commons.wikimedia.org/wiki/File:StringArt-RightAngle.png



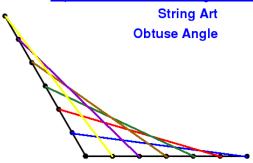
b. An acute angle

Picture: http://commons.wikimedia.org/wiki/File:StringArt-AcuteAngle.png



c. An obtuse angle

Picture: http://commons.wikimedia.org/wiki/File:StringArt-ObtuseAngle.png



REQUIREMENT 4: Name three ways to prepare wood for string art.

There are many ways to prepare the wood for String Art. In most cases this is done before the string is put in place.

Paint

Select a colour and texture which shows off the string to the best advantage. A 'flat' paint is very effective, especially if black or any dark colour is used to highlight light coloured string.

Stain.

Stain changes the colour of the wood while still showing the nature and texture of the wood. Stained wood can be lacquered or varnished to make it glossy.

Lacquer.

Lacquer (clear) protects the wood without changing its colour. It leaves a glossy finish.

Cloth.

This refers to any 'cloth' material which can be used to cover the timber. It includes, but is not limited to felt, cloth (don't confiscate part of mum's curtains!) and hessian. Wall paper can even be used.

Cover the wood with the cloth. Use staples on the back or a thin, even coat of clear glue on the front. Dots of glue may show through, so if glue is to be used, it must be spread evenly. Stretch the cloth over the wood tightly, eliminating all wrinkles.

Metal Foil.

Aluminium foil is the most readily available. Brass foil is an alternative. Apply the foil as described previously for cloth

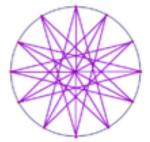
REQUIREMENT 5: Use stringing methods on wood to do four of the following:

The document 'String Art 1 Honour Trainer's Notes_Basic Patterns' contains designs which include all the following. You are welcome to use it. Feel free to include all four methods on the one piece, but this does <u>not</u> go towards meeting the needs of Requirement 6.

Filled circle

In a 'Filled circle', the string crosses the centre point of the circle. There is no empty space in the centre area of the circle.

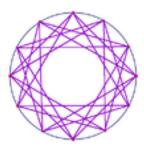
Picture: http://commons.wikimedia.org/wiki/File:StringArt-FilledCircle.png



a. Hollowed circle

In a 'Hollowed circle', the string does not go pass the centre point of the circle. There is no string in the centre area of the circle.

Picture: http://commons.wikimedia.org/wiki/File:StringArt-HollowCircle2.png



b. Star

Looking at the 'pointy' parts of the Filled circle, a star design is seen. To a lesser degree, a star shape is evident with the Hollowed circle.

c. Edging

Edging, as the name suggests, is used to create an 'edge' (ie outline) around the design.

There are two basic types of edging. They are the Curve-from-Within and the Curve-from-Without.

In the example here, we are using a circle. Edging outlines the circumference of the circle.

When you *curve from within*, the string covers some part of the inside curve.

When you *curve from without*, the string does not cross the space on the inside of the curve. The nails in the wood keep it on the outside of the curve.

Picture: http://commons.wikimedia.org/wiki/File:StringArt-InsideOutside.png



Please refer to part 'd' Edging

e. Curve from without

Please refer to part 'd' Edging

f. Filler

Picture: http://commons.wikimedia.org/wiki/File:StringArt-Filler.png



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String Art

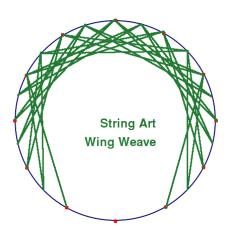
Outside

Curve

Inside Curve

g. Wing weave

Picture: http://upload.wikimedia.org/wikipedia/commons/2/24/StringArt-WingWeave.png



REQUIREMENT 6: Complete one original string art hanging on wood for display. Give it a title.

To illustrate the basic steps of creating a String Art project, we've used Pattern No 1 of the 'String Art 1 Honour Trainer's Notes_Basic Patterns' document.

Step 1.

Plan how to accomplish the project in the most effective way. That is having all the tools and materials ready to go. The steps outlined below are for the option of painting the base board after the nails are driven in. If the board is to be covered with a cloth, this will have to be done before the nails are driven in.

Step 2.

Acquire a pattern. The most important feature of a pattern is to locate the position for inserting the nails in the base board. Remember that it is best to remove the pattern before applying the string, so ordinary paper (ie approx 80gsm) works well and is easy to remove after the nails are inserted. Remember that your pattern will be destroyed, so make sure you have a copy if you wish to keep your pattern.

Step 3.

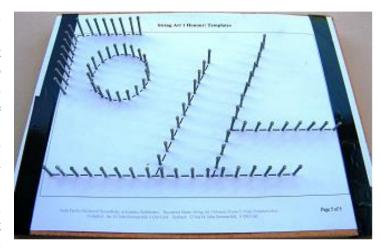
Secure the pattern over the base board.

Step 4.

Hammer the nails into the base board. Concentrate on what you are doing, as hammers and fingers do not go well together. It's best to give the nails a positive blow with the hammer instead of pussy-footing around with gentle tap, tap, taps. Holding the nails with a pair of long-nosed pliers may be useful if one has difficulty holding the nails.

In most projects, the final product looks better if the nails are aligned and are of consistent height. A guide made of scrap timber of the desired thickness is useful. Just start the nails in the desired locations. When a row is tacked in place, place the guide beside the nails and drive them into the desired depth.

Ensure that the nails are driven in deep enough to ensure that they are not pulled out under the



tension of the string. Picture: Pattern is still taped to the base board. Nails are driven in.

Step 5.

Remove the pattern. It may be tempting to leave the paper in place to serve as a guide while running the string, but this temptation should be resisted. It is nearly impossible to remove the paper without removing at least some of the string. Do yourself a favour and remove the paper before running the string.

Step 6.

Paint the base board and nails.

Step 7.

Install the string. Anchor the first string to the first nail using a slip knot. Tug on it to be sure it will hold before spending a lot of time running the string. If it pulls loose halfway through the design, it will be difficult to salvage all that hard work.

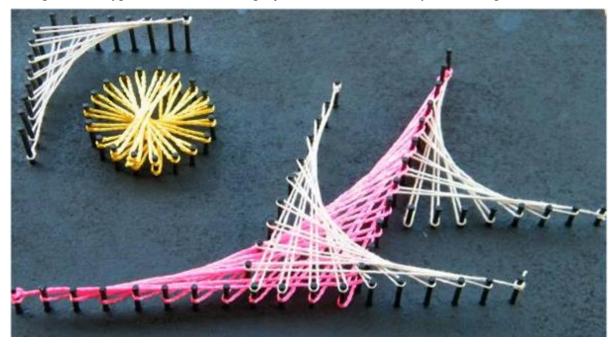
When creating our demonstration piece, we started with the acute angle which is situated on the right of the design. See picture on the right. Note that we have yet to trim the excess string on the slip knot.

<u>Hint</u>. To create a special effect, place the first strings that are attached to the lower part of the pins / nails



Step 8. Finish off. Now we have the completed project.

Being abstract types, we've titled our project. 'Sunshine on Pathfinder Campout'



<u>Hint</u>: We found that 'Brickies Line' (SUPERCHEAP Auto, Australia is one source) serves as an interesting string. It is strong and comes in fluoro colours if a dazzling outcome is desired. See gold and pink string above. A 100m roll is reasonably priced.

ADDITIONAL REFERENCES and RESOURCES

Internet

How to Do String Art: http://www.wikihow.com/Do-String-Art

String Art Designs – Pinterest

http://www.pinterest.com/ann2kids/string-art/www.pinterest.com/poupart/craft-string-art/

String Art DIY:

http://stringartdiy.com/

http://www.instructables.com/id/DIY-String-Art-Tutorial/

Instructions in 'String Art Writing': http://candyribbonsweets.com/2012/05/30/string-art/

Teacher's Network – String Art: http://www.teachersnetwork.org/dcs/math/stringart/index.html

String Art Fun: http://www.stringartfun.com/

String Art Patterns: http://www.stringartfun.com/section.php/2/1/free-patterns

30 Creative DYI String Art Ideas – Architecture Art Design:

http://www.architectureartdesigns.com/30-creative-diy-string-art-ideas/

String Art Templates:

https://www.google.com.au/search?q=string+art+templates&tbm=isch&tbo=u&source=univ&sa=X&ei=hPLSUoXfJpGPkqWcqoGIAQ&ved=0CCkQsAQ&biw=1536&bih=676

String Art Images:

https://www.google.com.au/search?q=string+art&tbm=isch&tbo=u&source=univ&sa =X&ei=CkPUUqrOJsOiigfJ6IHQCg&ved=0CCkQsAQ&biw=1536&bih=676