

Paper

Folding

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PAPER FOLDING:

AND MODELLING FROM CUT MATERIAL
(A YEAR-LONG COURSE IN SLOYD FOR PUPILS IN FORM I)

BY
H. G. PATERSON

*2024 EDITION—REVISED AND UPDATED BY RACHEL & JAMES NORTH
METRIC CONVERSION, UPDATED DIAGRAMS, COLOUR PHOTOGRAPHS, DIGITALLY ENHANCED.*



CHARLOTTE MASON BEEHIVE, MELTON MOWBRAY, LEICESTERSHIRE, U.K.

Paper Folding and Modelling
2024 Colour Edition

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This edition of 'Paper Folding and Modelling' is a brand new transcription,
prepared and edited by Rachel and James North for Charlotte Mason Beehive.
It is based off original scans of the twentieth century publication by H. G. Paterson,
which has now entered the public domain.

Printed and bound in England.

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Written content by Rachel & James North

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INTRODUCTION TO THE COLOUR EDITION

FOLLOWING on from the success of our first publication of *Paper Folding*, by H. G. Paterson, we are pleased to present a brand new and fully updated colour edition of this scarce title.

Assigned consistently by Charlotte Mason for pupils in Form IB, *Paper Folding*, still today, forms an excellent introduction to Sloyd for young children or for those new to the discipline. The projects in the book are simple to make, practical in function, and require minimal tools. Children begin with paper pre-cut to the correct dimensions and are not required to measure or cut the material themselves. Where a cut is necessary, tearing is the method of choice.

Unlike in our first edition, this new release has been extensively revised and updated. The models, methods, and techniques employed are faithful to the original, as is the spirit in which the book has been written; however the instructions have been re-written in an easy to follow step-by-step manner and are accompanied by colour photographs to highlight each step. We are committed to making Paper Sloyd accessible to all and aim to eliminate ambiguity completely, and so for this reason, the steps and photographs are numbered to correspond with each other and each step has a picture associated with it.

The book uses both metric and imperial measurements and includes remastered digital technical diagrams. The diagrams indicate folds by the use of dotted lines, while solid lines demonstrate the point at which the paper will be torn. We have retained many of the original drawings for illustrative purposes only. As in the original publication, space is provided at the end of the book for writing notes and for making drawings of alternative models.

There was a clear rotation that Charlotte Mason used for the models in the book, which took the students through the entirety of the course in one academic school year. We are using the same rotation for the new edition as we did in our previous publication, and the book includes clear divisions by term, with all materials for the term listed at the start of each section.

The material required for each model has been simplified as much as possible and a complete set of course materials can be purchased directly from Charlotte Mason Beehive, with all pre-cuts having already taken place. Should materials need to be purchased individually, please note that not all material can be purchased in the correct dimensions, and therefore you may need to make cuts before giving it to your child. Your children do not need to cut any paper to size beforehand as all of that should be taken care of by the educator.

Many of the projects use pre-gummed paper, eliminating the need for a glue stick, however we do advise keeping a glue stick to hand for reinforcing models as necessary. Always ensure you apply adequate amounts of water coupled with firm pressure to the gummed paper, allowing time for it to stick.

We hope you have a pleasant and engaging school year using this new and improved resource. Please share your completed models with us on social media.

RACHEL NORTH
September 2024

INTRODUCTION TO THE ORIGINAL EDITION

THIS SCHEME of Paper Folding and Modelling has been arranged and published, in the first place, as an aid to the work of the Handwork Students in the Edinburgh Provincial Training College. Another reason for its issue is that former students and other teachers who are desirous of keeping pace with recent developments in this branch of Education, have frequently expressed a desire for the publication of a scheme dealing with Paper as an Educational Medium.

In submitting what is intended as the first of a series of handbooks, the author realises the rapid development of Handwork and the varied phases through which it has passed, and must still pass before anything like finality or completeness be claimed for any scheme. While for the present, the views expressed and the methods adopted in this scheme, are the results of the most recent research and experimental teaching with children varying in age from five to eight years yet the future will certainly admit of both modification and improvement.

This course, while arranged to meet the requirements of children at an early age, is not intended in any way to interfere with, or to supplant, the initial stages of formative education as at present carried on during the first year or so at school. It is designed rather to supplement and consolidate the still more elementary constructive occupations of the Fröbelian system. It may thus serve to bring these initial stages into line with the larger scheme of Handwork which ought to apply to the Junior Division of every school.

The chief difficulties which lie in the way of the general introduction of this work in the Senior Infant classes and Junior Division of our school are well known. They are briefly as follows:—

- (a) A teacher is not a Handwork expert.
- (b) The classes are too large for successful work.
- (c) The accommodation for this work is unsuitable.
- (d) Suitable material and furnishings are difficult to obtain.
- (e) The tool equipment is inadequate.
- (f) The curriculum is already full.

The truth of all these arguments may be frankly admitted; but, taken separately or collectively they furnish no excuse for the abandonment of the practical occupations of the first period of school life.

This course has been so arranged as to reduce these difficulties to a minimum if not to eliminate them.

It is not desirable that the teacher should be an expert in the sense of having specialised in this work. The specialist visiting teacher is at a distinct disadvantage as compared with the class teacher in associating the Handwork lessons with the subjects of the general curriculum. The directing hand of the specialist is necessary to obtain the full benefit from a progressive scheme of handwork in the whole school, but the class teacher, if keen and capable, is the best teacher for this work, especially in the Infant and Junior classes.

The classes are admittedly too large for the best work. This, however, is not because sixty children are not as capable of following a demonstration methodically given as a class of thirty. It is because the possibility of supervision is reduced by one-half—which is regrettable, for judicious help is as legitimate and may be more necessary in Handwork than in Headwork. One cure for this is to make the demonstrations shorter, and to diminish accordingly the amount of work attempted. The aim must be quality of work and not quantity. A few operations thoroughly mastered become part of a child's permanent equipment for life.

Another drawback is the time required for preparation and distribution of material and tools.

It is essential to the success of the work that the material be suitable and carefully selected and prepared. For this reason arrangements have been made by the author for the supply of all the necessary material, cut to the specified sizes for each model, and so prepared as to reduce to a few minutes the time necessary for distribution. In this part all forms of glue, etc., have been dispensed with; the models are fixed by means of strips, squares and discs cut from gummed paper.

Tools at this stage are unnecessary, the dimensions and forms of the various models being obtained by processes of folding. The openings in the paper necessary for the construction of the models are torn with the fingers, not cut with scissors. These arrangements should help to solve the difficulty of teaching Handwork to large classes.

The lack of accommodation is more apparent than real at this stage. Having got rid of tools and glue, the teacher can use the ordinary school desks.

The cost of furnishings and equipment for the course is trifling; in addition to the papers used for construction and fastening, a box of very small paper fasteners is the only requisite. These are used occasionally as an alternative method of fixing.

The children should be encouraged to bring other incidentals required, such as—a small sponge in a box for moistening the gummed paper (Editor's note—we recommend using a paintbrush and cup of water), a darning needle or large pin, for piercing models where thread, twine or cord is to be introduced, and the twine itself when necessary.

With regard to the last mentioned difficulty—that of the already full curriculum—it must be remembered that Handwork is not an additional subject, claiming, as such, a place for itself on the time-table. It is rather a method of imparting instruction which will help a child to exercise his reasoning faculties and put them to the proof; the effect of the Handwork lesson is to increase the general intelligence of the pupil and so to help, not hinder, the other work of the school.

The scheme has been successfully taught in its entirety to classes of children from six to eight years of age, and it is for this age specifically that the work has been designed. In schools where Handwork has not been previously taught, the course may, with advantage, be given to older children, as the training involved in correctly performing the simple operations of this course is necessary to the intelligent performance of more complicated work. The text facing each plate contains the working directions in language sufficiently explicit for the student or teacher.

Detailed notes of method for each lesson should be written out by the teacher in language suited to the stage of the class. Only experience will prove what is best suited to each particular case.

The models, while carefully selected and arranged, are intended to be taken as typical and suggestive only. Many adaptations of these models can be folded from the same material and alternative designs invented by the teacher always add freshness and interest to the work.

At this stage it is advisable that the children should follow prescribed and directed operations alone, but the teacher ought certainly to work out new forms on the lines suggested.

Space is provided at the end of the book for writing notes and alternative methods, and for making drawings of alternative models. This will enable the teacher to have all the matter relating to the work of this stage at hand.

Teachers should be thoroughly conversant with the various operations entailed in the construction of a model before attempting to teach it. It is absolutely necessary to make it at least once in order to discover the relative degrees of difficulty in each operation. They should not trust to finding some way out of a difficulty which suddenly arises during a lesson.

For the effective teaching of Handwork, conscientious preparation is absolutely essential.

Teachers should demonstrate, as a rule, with a sheet of paper at least twice as large in its linear dimension as that used by the pupils, and when a number of folds are introduced in a lesson, coloured crayons may be used with advantage on the demonstration sheet to distinguish one set of lines from another.

The process of Folding, Creasing, and Tearing are fully illustrated and carefully explained, as the success of subsequent operations depends largely upon good work in these initial stages.

In conclusion, the reason for substituting the torn edge for the cut edge must be mentioned. The desirability of dispensing with tools has already been referred to. Apart from this, tearing is a natural operation for young children. It is a more educative proceeding, and produces a more pleasing form of edge than cutting. It requires but little use of the imagination to recognise that the faculties exercised by this type of training are those which will be largely used in after life.

The author has to acknowledge the many helpful suggestions and the assistance in experimental teaching given by colleagues in the profession.

DEANBANK COTTAGE, EDINBURGH,
April, 1912.

PAPER FOLDING

MATERIALS REQUIRED FOR THIS COURSE

May be obtained through Charlotte Mason Beehive,
or through leading suppliers of paper and stationery products.

PAPER

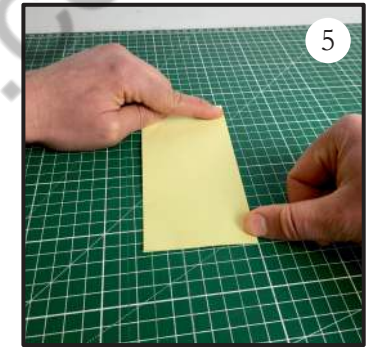
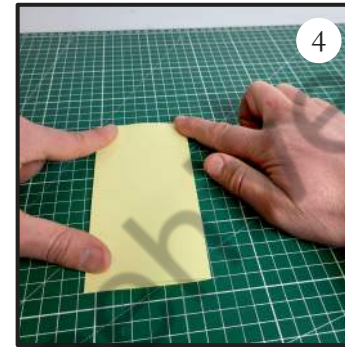
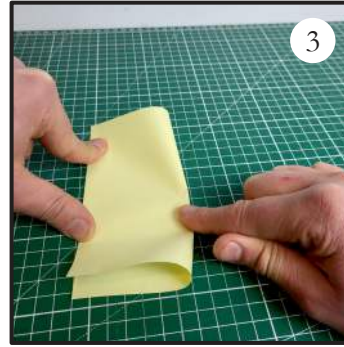
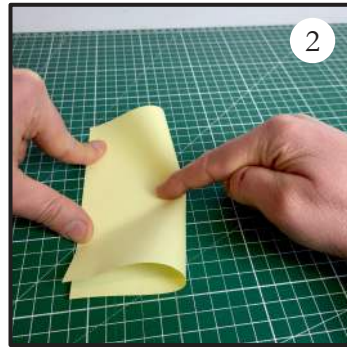
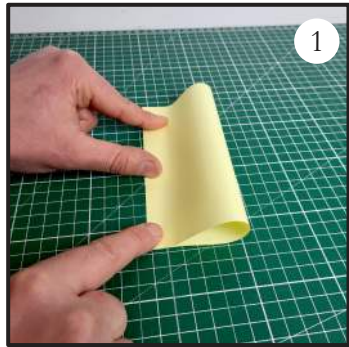
- 54 x Origami paper, 6" x 6" (150mm x 150mm)
- 3 x Red Origami Paper, 6" x 6" (150mm x 150mm)
- 3 x White Origami Paper, 6" x 6" (150mm x 150mm)
- 6 x Coloured paper, 16½" x 8¼" (420mm x 210mm)
- 3 x Coloured Paper 16½" x 7" (420mm x 180mm)
- 3 x Plain Paper, 9" x 8" (230mm x 200mm)
- 3 x White Paper, 6¼" x 4½" (160mm x 112mm)
- 3 x Blue Paper, 6¼" x 4½" (160mm x 112mm)
- 6 x Plain Paper, 8" x 4" (200mm x 100mm)

GUMMED PAPER

- 33 x Gummed paper strips, 8" x ¾" (200mm x 20mm)
- 33 x Square Gummed Tickets
- 30 x Gummed Discs

MISCELLANEOUS

- Paintbrush and cup of water
- Glue Stick
- 5 x Paper Clips
- Lolly pop Stick
- Drawing Pin
- A Needle and Thread
- 2 x Strands of Wool
- Matchbox



DIRECTIONS FOR FOLDING, CREASING AND TEARING.

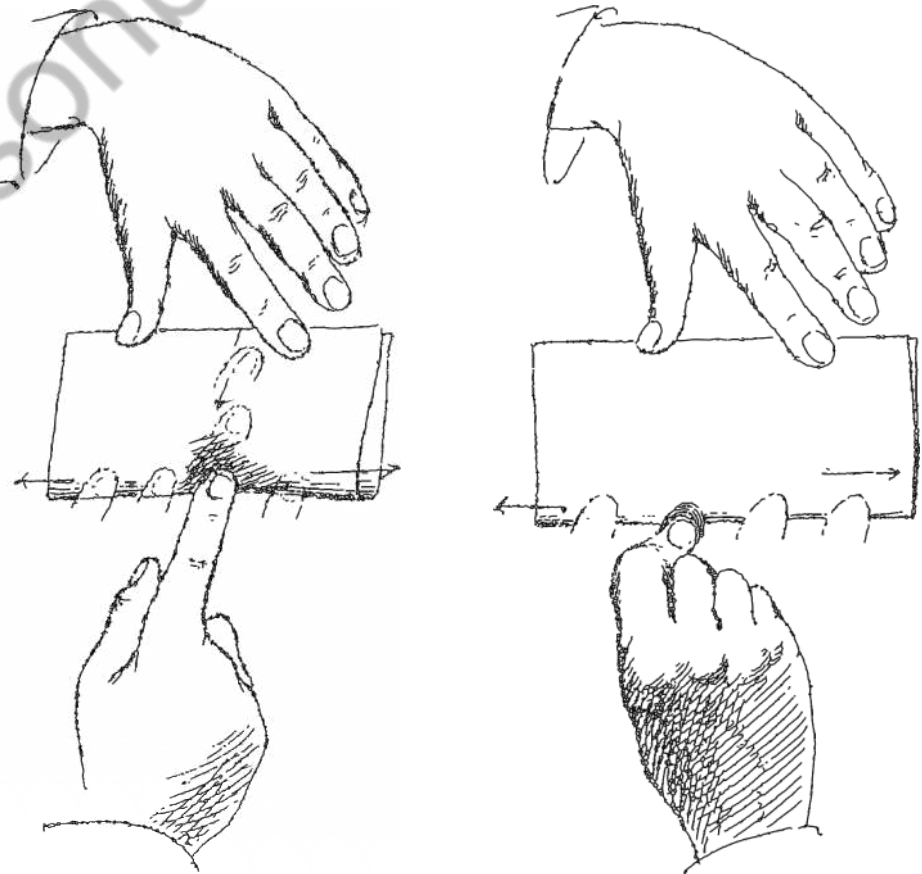
FOLDING AND CREASING

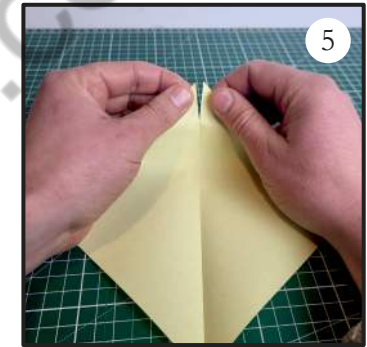
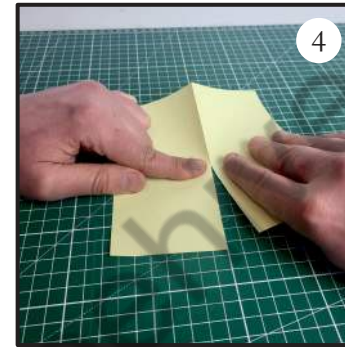
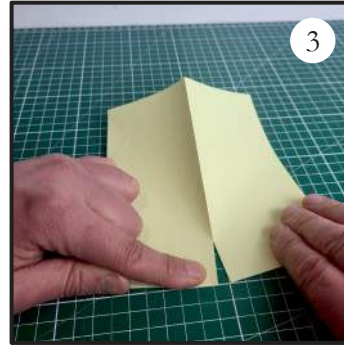
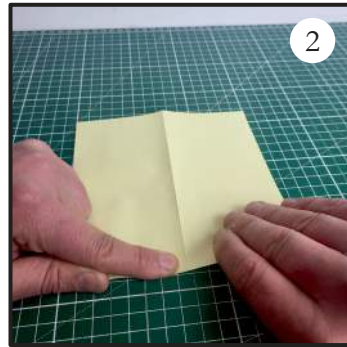
MATERIAL:

Origami paper, 6" x 6" (150mm x 150mm)

METHOD.

1. Bring two sides of the paper together to produce the fold line where the fold is required. Ensure the sides are accurately aligned with one another.
2. Press your finger down to the centre of the desired fold, flattening the centre point securely.
3. From the flattened centre run your finger across the fold line to the edge of the paper, creating an obvious fold as you move.
4. In a similar manner, run your finger across to the other side of the paper, completing the fold.
5. A creased edge suitable for accurate tearing should be first folded as in the previous steps. Now, take your thumb, press down firmly, and draw it along the fold until the edge takes on the desired sharpness.





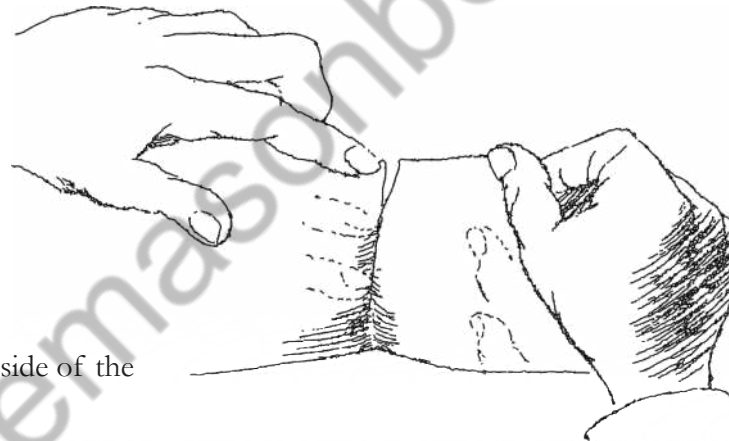
TEARING

MATERIAL:

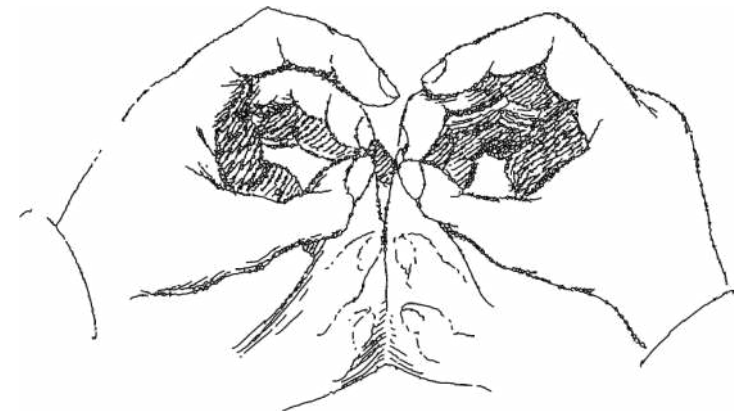
Origami paper, 6" x 6" (150mm x 150mm)

METHOD.

1. Take your previously creased piece of paper with the convex side of the crease up and pointing towards you.
2. Place the tip of your index finger next to the creased line, and with your other hand grip the opposite side of the paper.
3. Pull outwards to the side (not upwards).
4. Work slowly and carefully to produce the tear. Bring your finger and hand grip further down the paper at intervals during the tearing process.
5. An alternative version of tearing is done by gripping the paper either side of the crease between the thumb and index finger, and pulling apart. This version is especially useful when tearing on a diagonal, a technique first employed in term 2.



Tearing is usually indicated by solid lines in the diagrams throughout this book. All torn lines need to be previously folded and creased.



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TERM I.—MODELS 1-8

WORK ENVELOPE | HANGING POCKET | CORNER | WALL POCKET
SPILLS | FOLDED NOTE | SPILL HOLDER | SQUARE ENVELOPE

Materials List (*always ensure you have extra materials to hand*):

PAPER

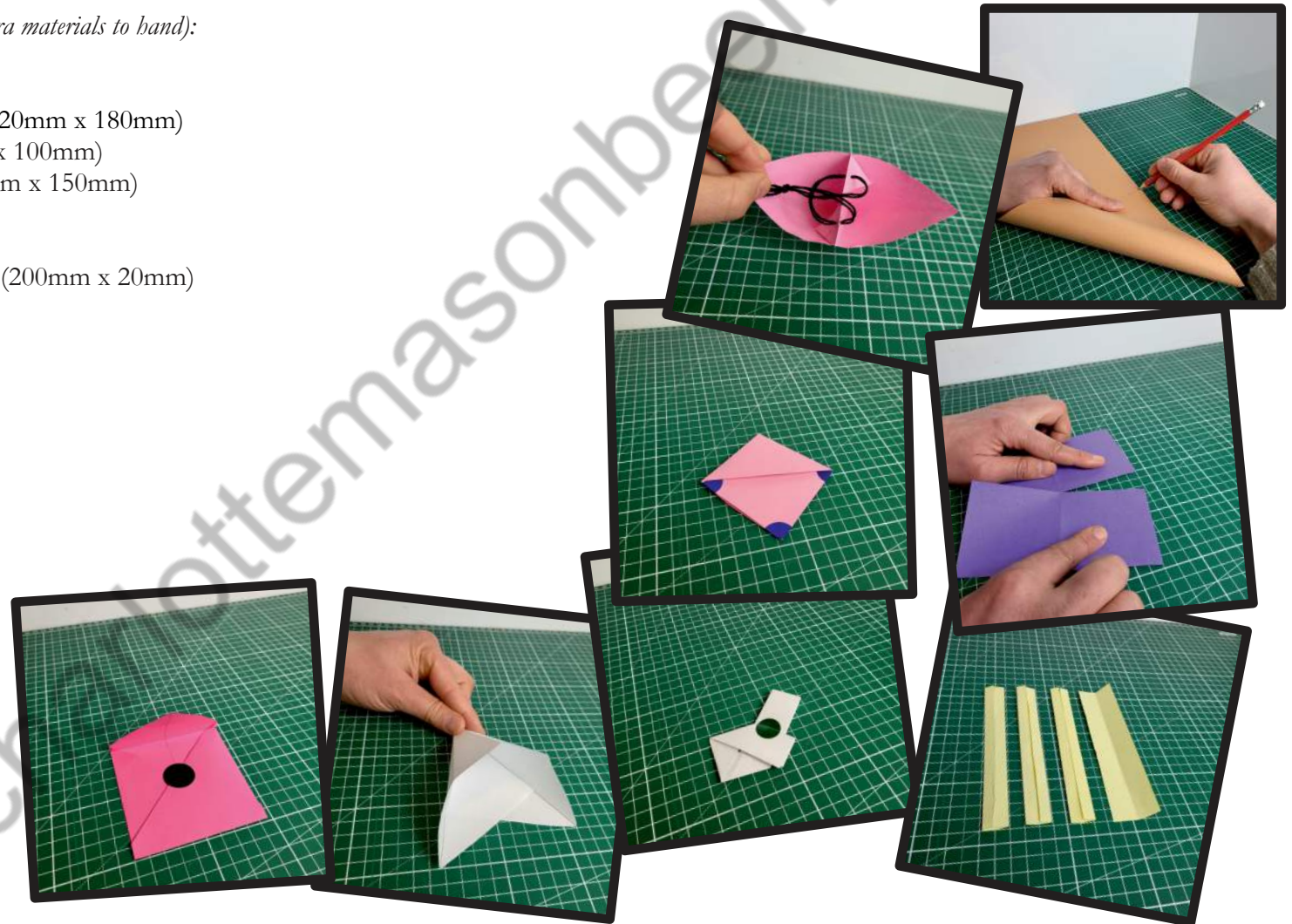
- 1 x Coloured paper, 16½" x 7" (420mm x 180mm)
- 2 x Plain Paper, 8" x 4" (200mm x 100mm)
- 5 x Origami paper, 6" x 6" (150mm x 150mm)

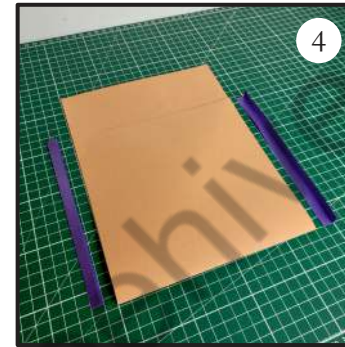
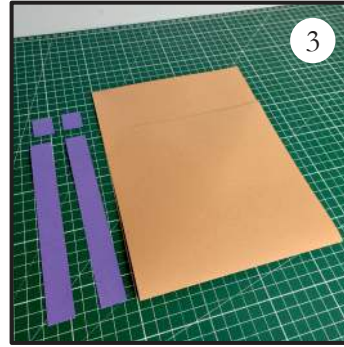
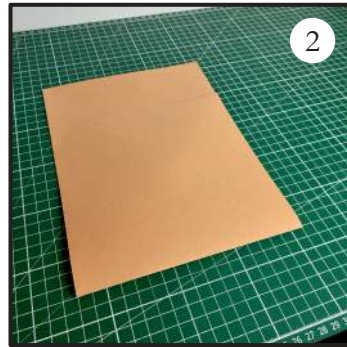
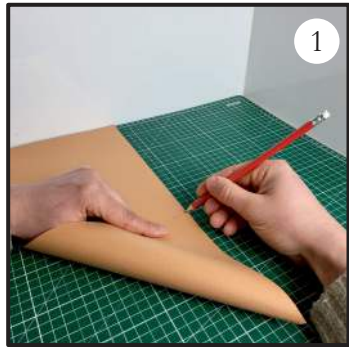
GUMMED PAPER

- 4 Gummed paper strips, 8" x ¾" (200mm x 20mm)
- 4 Gummed Discs
- 1 x Square Gummed Ticket

MISCELLANEOUS

- Paintbrush and cup of water
- A Needle and Thread
- Glue Stick





I.—WORK ENVELOPE

As an introduction to this course, the Work Envelope is a very useful project to begin with. The envelope may be used by pupils as a receptacle for storing their paper folding supplies or for their works in progress. The dimensions may be scaled up or down as required.

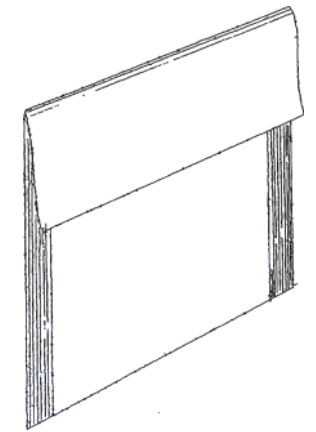
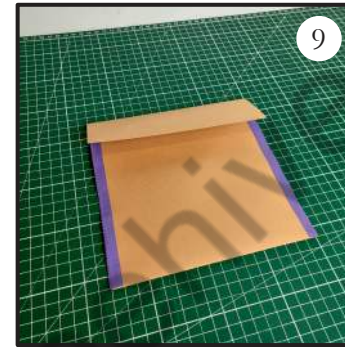
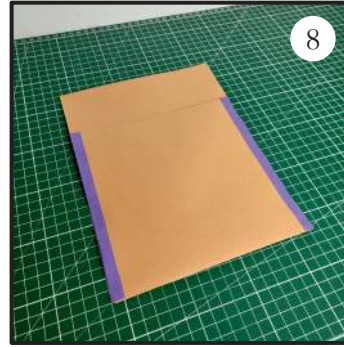


Diagram 1:
Work Envelope
Scale 1:2
420mm x 180mm
16½" x 7"



MATERIAL:

Coloured paper, 16½" x 7" (420mm x 180mm) | 3 Gummed paper strips, 8" x ¾" (200mm x 20mm) | Paintbrush and cup of water

METHOD.

1. Without making a crease, mark point F by laying edge BD along edge CD.
2. Fold and crease at EF, keeping edge DF directly above FC.
3. Measure two of the gummed paper strips against sides BE and DF. Fold, crease, and tear off the overhang.
4. Fold the torn gummed paper strips in half lengthwise edge to edge, the gummed side of the paper to the inside, and crease sharply.
5. Laying one of the folded strips on the desk, slot the folded end of the envelope along edge BE closely into it.
6. Throw back the upper flap of the gummed strip, moisten with the paintbrush and water, and bring it down on the folded envelope.
7. Turn the envelope over and fasten the lower flap in the same way, thus sealing the edge.
8. Apply the second strip in similar fashion to the other open end of the envelope along edge DF, and fix down in the same manner.
9. Fold down flap of envelope.
10. Write your name on the remaining gummed strip and tear to size. Throw back the flap of the envelope the reverse way and use the edge as a guide when sticking the name tag in the centre of the work envelope, midway between the vertical side strips.

