PN103/PN104
N Scale Terraced Houses

PN103
Brick version shown here

Contents of this kit

2 x Sheet A.

Each sheet contains all the printed components to build a set of two houses.

1 x Sheet B.

Thick grey card sheet containing two sets of inner strengthening components.

1 x Laser Cut Sheet L1.

Fine laser cut door frames, door steps and bay window brace cards.

1 x Glazing Sheet.

This clear plastic sheet is printed with two complete sets of windows plus a few extra alternative window styles.

1 x Instruction Booklet.
This one!

READ THROUGH ALL THE INSTRUCTIONS BEFORE YOU START.

This is a complex kit that requires attention to detail, so proceed with care!

To construct this kit you will need a few basic tools:

1. A modellers knife.
2. A pair of sharp scissors.
3. A steel ruler.
4. Glue - See glues.
5. Ultra Fine Tip Glue Applicator, see below.
6. A cutting surface - a sheet of card or cutting mat will do.
7. Fine point tweezers.
8. Watercolour paints and fine brush.

GLUES

SPEEDBOND by Deluxe Materials is our glue of choice for this kit see www.deluxematerials.com

Also **UHU Solvent Free All Purpose Adhesive** Both work in our Ultra Fine Tip Applicators.

METCALFE
Ultra Fine Tip Glue Applicators.

An absolute 'must' when building this kit. Perfect amounts of glue can be applied to very precise areas without any mess.

Speed Bond in an applicator was used to build this kit.

A METCALFE product supplied in packs of 3 Product code MT907
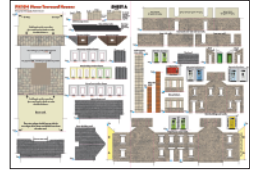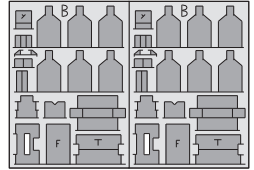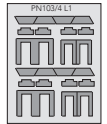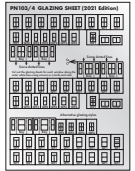
Glue not included

GETTING STARTED

1 Extracting Components from the Base Sheet

To stop the components from falling off the printed sheet, they are held secure with score lines (marked with blue arrows) that cut about 75% of the way through the card. To release them run the point of your knife along these scores and they will come seamlessly away.
WARNING, Cut with care using a knife that is not too sharp, this will reduce the risk of the blade running off the score and cutting the components.
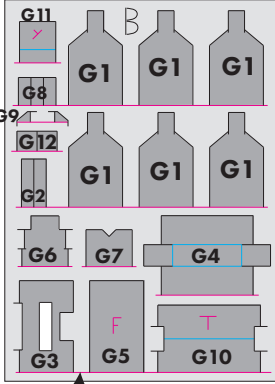
Build the houses one at a time.
Only extract the components from 1 x Sheet A. and one half of the Grey Card B.
Key to Grey Card components overleaf.
Laser cut components can be left on the sheet until needed.

Grey Card Sheet B

Each set comprises the following:

G1. Gable wall inners spacers two sets of 3.
G2. Floor Lugs x 2 to help locate G3 inner base.
G3. Inner base card.
G4. Inner support
G5. Inner upper floor.
G6. Rear building base.
G7. Rear building upper floor.
G8. Chimney spacers x 3.
G9. Rear gable roof supports x 2.
G10. Main roof support.
G11. Shed inner brace.
G12. Dormer formers x 2.

RED lines indicate score rules you need to cut to release from base sheet.
BLUE lines are fold lines. Don't cut.

➋ Make your 'Builder's Yard'

As you extract the components from the base sheets they need to be kept away from your working area on a thick piece of card or a tray until needed.

Example of builders yard.

➌ Painting Corners and Edges.

Before you start any building work, it is best to get this job out of the way.
The white card that shows on the corners and edges doesn't have to be painted, but if you are a perfectionist it is easiest painted before you build.

All you need is a simple set of child's watercolour paints like these and a fine brush. Mix the colours in the lid.

Mix your colour with lots and lots of water, approx. 1 part paint to 5 parts water or more. TEST ON WASTE CARD FIRST UNTIL YOU HAVE THE CORRECT SHADE & COLOUR.

Fold the edges of the card back fully and gently run the end of your brush along the exposed corner.
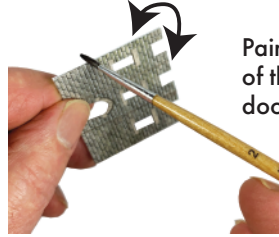
Paint the inner edges of the window and door openings too.

Only tiny amounts of paint on your brush. It's better to have to go over it a few times than to flood it with paint.

Wipe away any paint that has run onto the printed surface before it dries.

DON'T paint a thick solid line down the edges, you will only make it look worse.
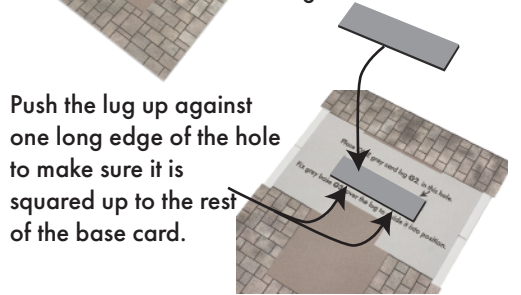
START BUILDING
➍ Base Card.

Fold the two ends over on the score and glue to the back of the base.
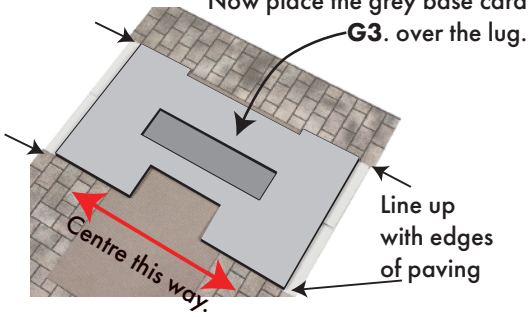

Like this.

Place ONE grey card lug **G2**. in the recess.

Push the lug up against one long edge of the hole to make sure it is squared up to the rest of the base card.
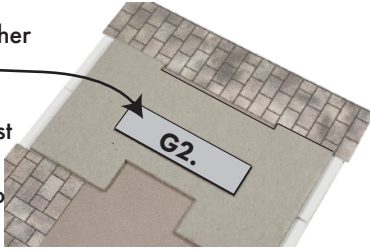

2

Now place the grey base card **G3**. over the lug.

Line up with edges of paving

Centre this way.

Then fix another lug **G2**. into the hole. Push it against one of the long edges to square it up.
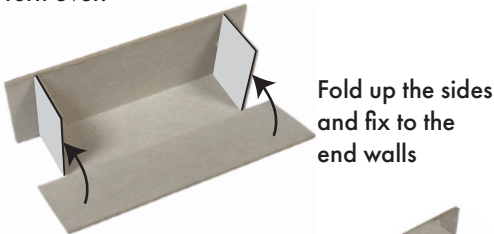
G2.

5　Inner Support.

The inner support **G4**. folds up to form a box type structure that stands in the middle of the building and holds everything in place.

Fold the two short ends down between the longer sides.

Turn over.

Fold up the sides and fix to the end walls
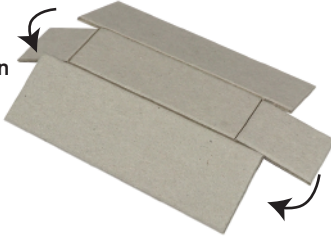
Turned back over again and it looks like this, ready for use.

6　Inner Gable Walls.

For EACH gable wall fix **THREE** x **G1**. grey cards together to form a solid block ALL OUTER EDGES MUST BE FLUSH. This is very important take lots of care that you get them lined up.
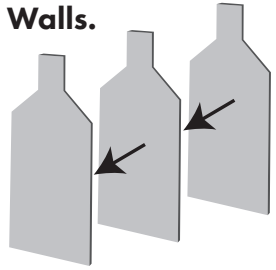
7　Assemble the Inner Structure.
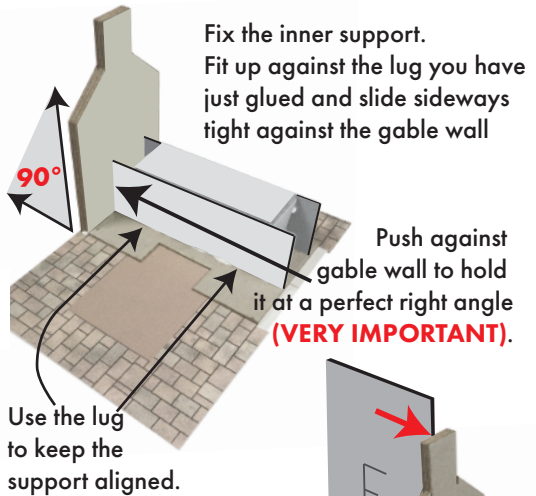
Fix one gable wall to the base card as shown

Fit it down in the recess so it sits on the white card and is pushed tight up against the edge of the grey base card.
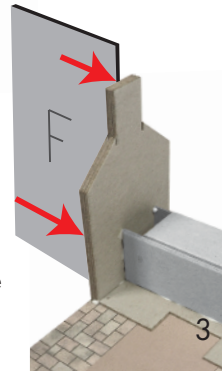
Edges flush.
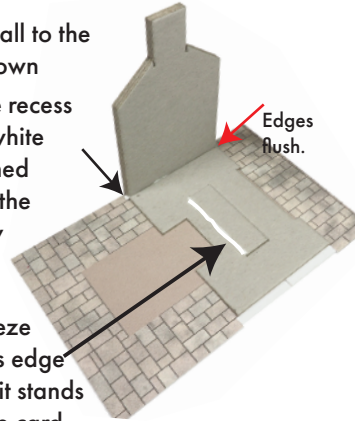
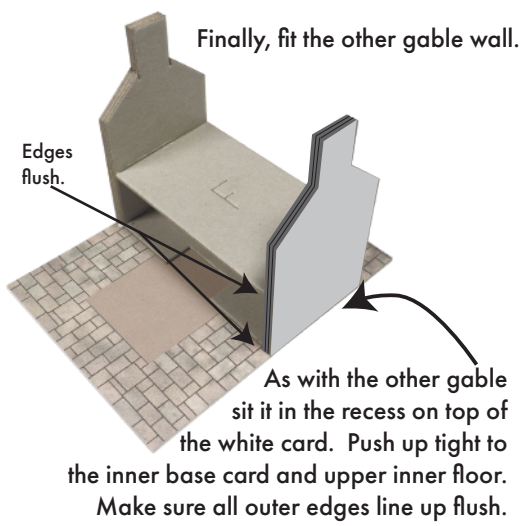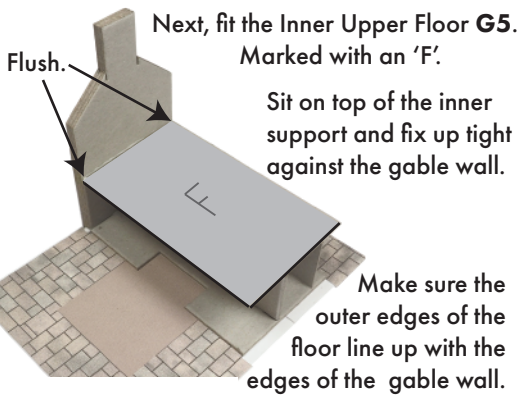Put a good squeeze of glue along this edge of the lug where it stands proud of the base card.

Fix the inner support. Fit up against the lug you have just glued and slide sideways tight against the gable wall

90°

Push against gable wall to hold it at a perfect right angle **(VERY IMPORTANT)**.

Use the lug to keep the support aligned.

To check it stays at a perfect right angle, stand a piece of squared card such as the inner floor, against the gable until the glue has set.

F

3

Flush.

Next, fit the Inner Upper Floor **G5**. Marked with an 'F'.

Sit on top of the inner support and fix up tight against the gable wall.

Make sure the outer edges of the floor line up with the edges of the gable wall.

Finally, fit the other gable wall.

Edges flush.

As with the other gable sit it in the recess on top of the white card. Push up tight to the inner base card and upper inner floor. Make sure all outer edges line up flush.

> **Both gable walls should now be standing at perfect 90° right angles.**
> **THIS IS VERY IMPORTANT.**
> **KEEP CHECKING AS YOU BUILD.**

Put this 'Inner Structure' structure to one side. Have a cup of tea and marvel at the at the perfection of what you have just built!

8 Glazing and Window Frames.

Each window has a window frame and corresponding glazing sheet that fits behind it.

There are 10 x WF1. glazing pieces that fit behind the 10 x WF1.window frames which fit to the back of the window openings in the main building.
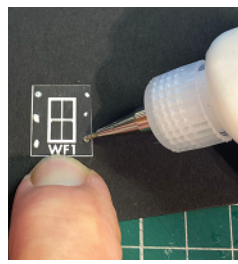
Place tiny spots of glue down each side of the glazing as shown here.
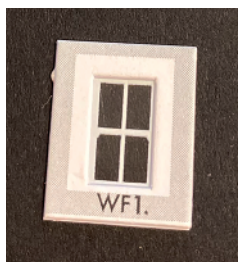
Then carefully fit the window frame on top of the glazing. Centre the glazing inside the opening. Make up all ten windows then make the 4 x WF2. and 2 x WF3. windows..
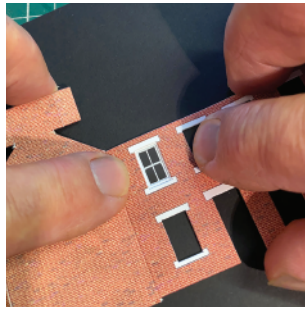
To fit the windows to the openings in the building, simply place the window on your work surface and lower the wall carefully down on to it.

A useful aid when doing this job is a large magnifier on a stand mounted directly above. Especially if, like me, your eyesight is fading!

Above, all ten WF1. windows are mounted into the main building.

The four WF2. windows are mounted into the side walls of the rear building and the two WF3. windows fit the gable.

❾ The Doors.

If you look at the bottom edge of the main building, you will notice that the front and back walls are 1mm. shorter than the gable walls. This is to allow the gabes to sit snugly down over the edge of the base card and the front and rear walls to sit on top of the base card.

It is imperative that when you fit the doors and the door frames, they don't protrude past the bottom edges of the walls.
The same applies to the rear building as well.

First fix the laser cut door frame to the back of the door opening

Flush to bottom edge BUT NO LOWER.

Fit two single door frames to the rear building.

Now fit the doors.

Front and back.

While you are here, cut a couple of tiny strips of waste card from the laser sheet and attach down the side of the upper windows and flush to the wall edges.

This will assist when attaching the rear building to the main building later.

Leave a gap here for the inner floor

that sits on top of the door frame.
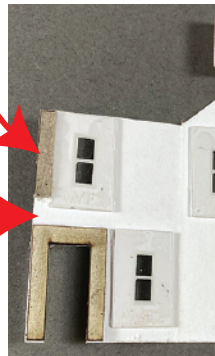
❿ Fix the walls to the building.

The walls of main building wrap around the INNER STRUCTURE.

Wrap the walls around without glue so you can see where it fits and where to apply glue.
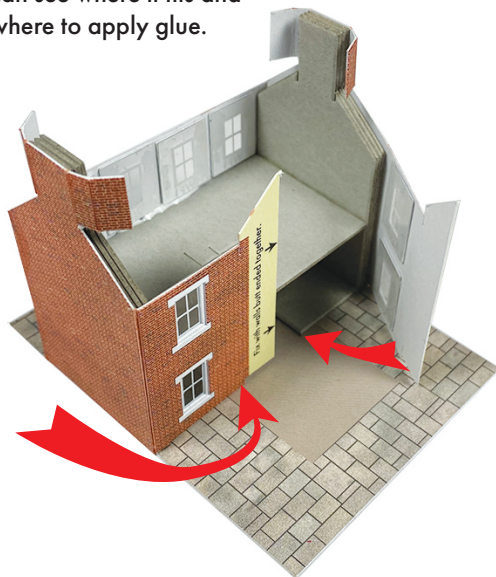
NOTE:
The gable walls are slightly longer than the front and rear walls to allow them to sit down into the recessed part of the base card.

You may need to trim the corners where the card is burred slightly to get them to fit neatly into the recess.

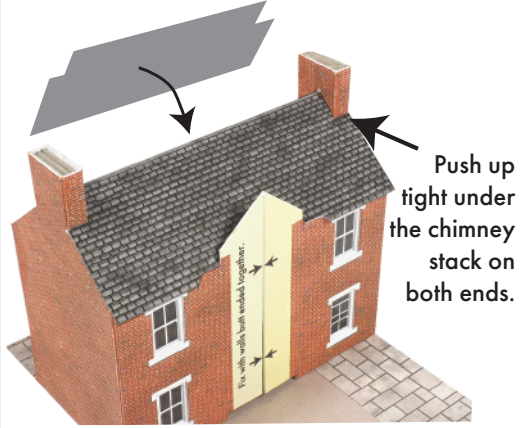Now wrap the chimney stacks around the gable wall tops until they meet butt ended together.
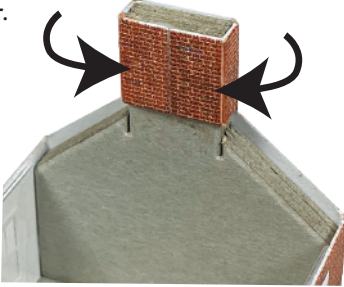
The main roof support **G10**. is next.

This sits down inside the outer walls directly on top of the grey inner gables. Make sure it is seated firmly down on to the wall tops.
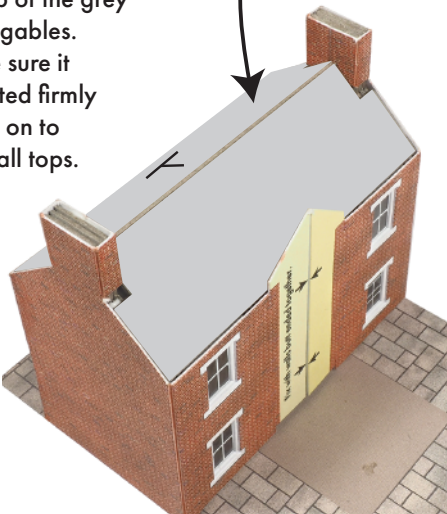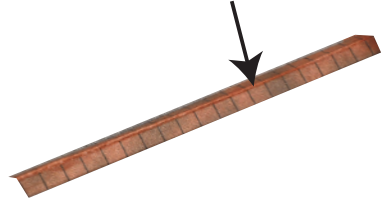
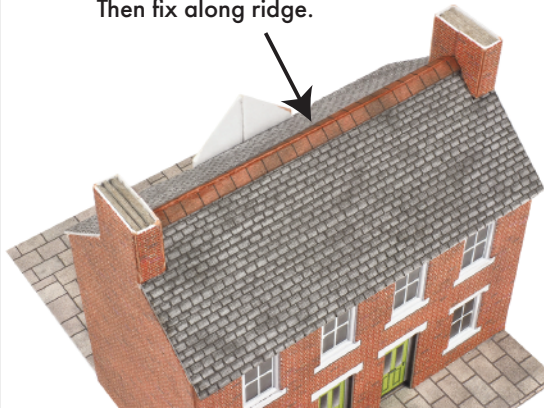Fix the front and rear roof sections directly on top of the grey roof support.

Push up tight under the chimney stack on both ends.

The ridge tile strip will cover any gaps along the ridge between the two roof sections. Locate the centre score line and fold fully back so you can paint the white card showing.

Then fix along ridge.

11 The Rear building.

Start with the chimney stack

Take the 3 x **G8**. chimney spacers and glue them together in a block with all edges squared up.
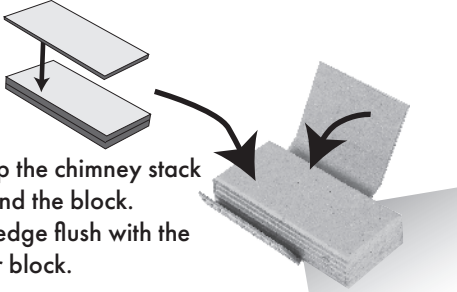
Wrap the chimney stack around the block.
Top edge flush with the inner block.

Chimney stack wrapped around the grey card as you did with the main building like this.
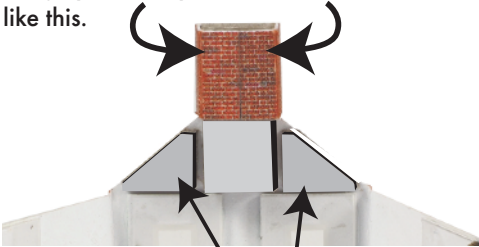
Also fit the two tiny triangular grey card gable supports **G9**. Fit flush to the wall top. This is just to make the wall thicker where the roof sit on it.

Fit the grey card **G6**. Rear Building Base.
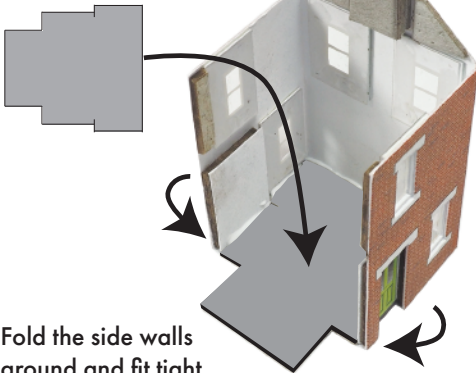
Fold the side walls around and fit tight against the back gable wall.

Now fit the grey card **G7**. Upper Floor.
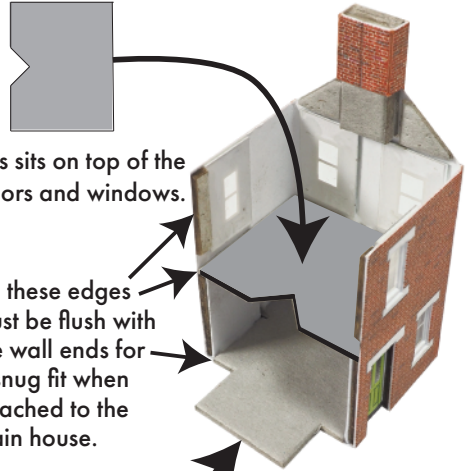
This sits on top of the doors and windows.

All these edges must be flush with the wall ends for a snug fit when attached to the main house.

This lug on the base card slides under the rear wall of the main house to guide it into position.

Fit the rear building to the back of the house. Test first without glue to check all wall edges fit against the house without any gaps.
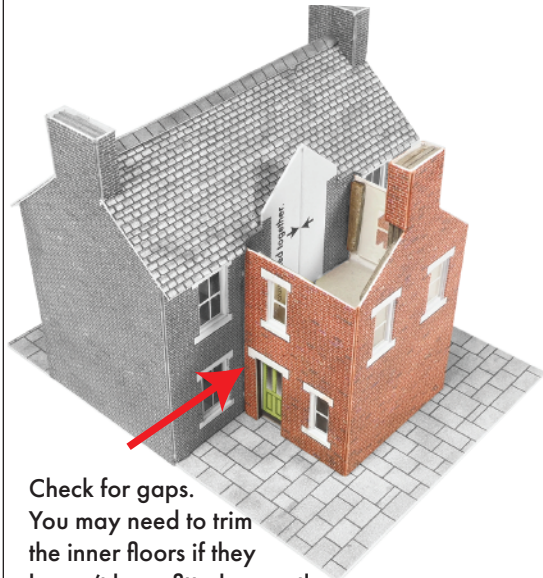
Check for gaps. You may need to trim the inner floors if they haven't been fitted correctly.

7

Fit the roof. Test first to check the fit.
It hooks around the main roof at a couple of
points. Carefully note how to fit it when you
do it with the glue.

The underside of the
angled roof just needs
a couple of spots of
glue near the edge to
hold it down to
the main roof.
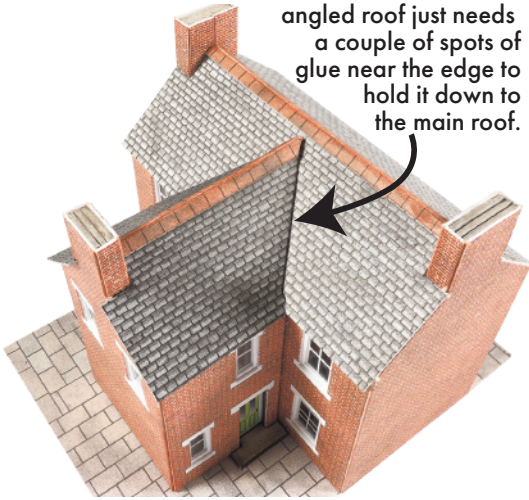
Finish off with the ridge tile strip.
Clip off the corners
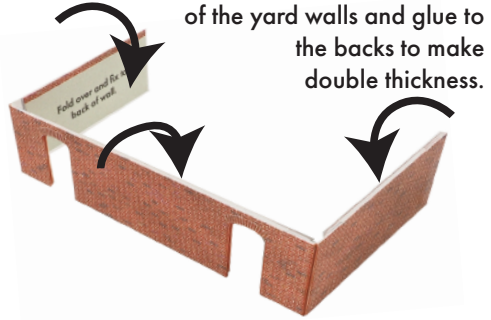on one end at about
45° to fit angled
ridge.
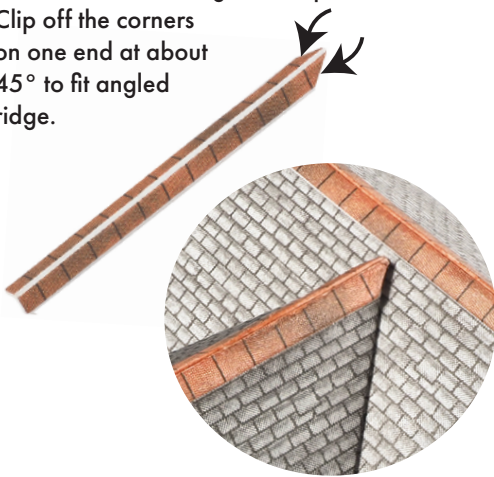
Fit the four laser
cut door steps
(front and back).

Note: The front and
back doorsteps are
different sizes.

Yard Walls & Shed.

Fold over the three inner sections
of the yard walls and glue to
the backs to make
double thickness.

Fold over and fix to
back of wall.

Cut out the yard gates from page 12.
Score and fold along the dotted line and glue
to make double sided.

Score and fold
Yard gates.
(street side)
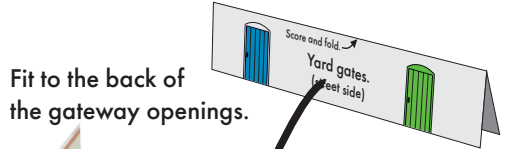
Fit to the back of
the gateway openings.
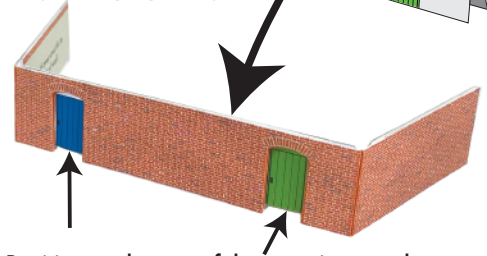
Position to the top of the openings so that you
leave a gap along the bottom edges.

Fold over and fix to
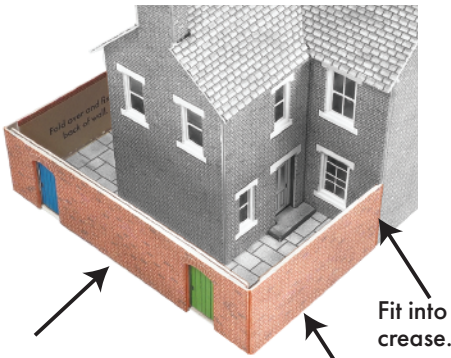back of wall

Fold over and fix to
back of wall
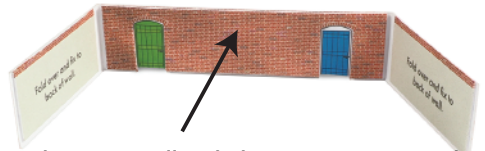
Fit the inner wall with the two openings to the
back of the wall. Line up the openings with the
gates and the wall top.

FIX WALL TO BASE CARD
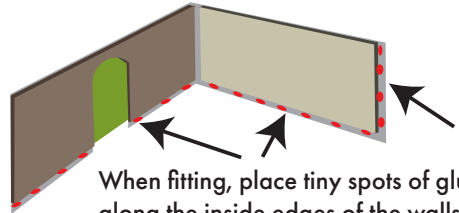
When fitting, place tiny spots of glue
along the inside edges of the walls
shown here as red dots.

Fit into crease.

Fit the wall around the yard base.
The inner walls sit on top of the base and the longer outer walls fit to the outer edges.
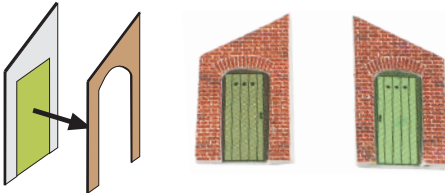The wall ends fit into the crease in the corner of the house walls.

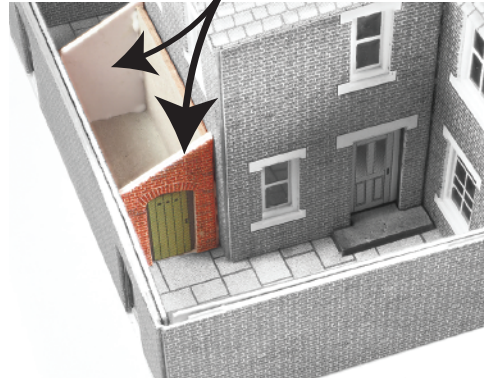Once the walls are in place and the glue has set fit the two shorter inside walls.
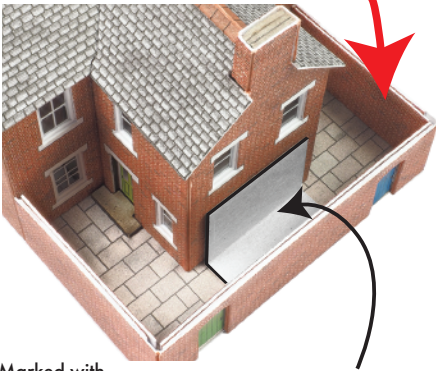
Marked with a 'y' on the back.

The shed interior brace **G11**. sits down inside the yard up against the back wall of the house.
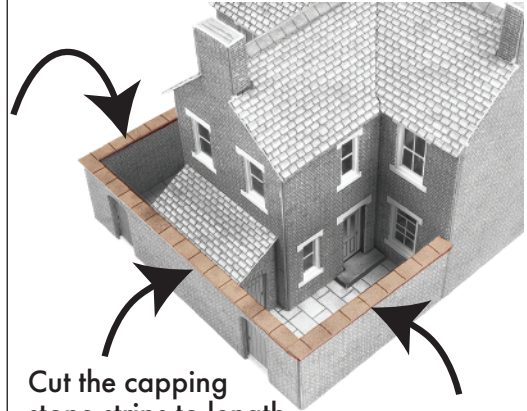
Fix the shed doors to the backs of the small shed walls.

Then fit them against the interior brace

Then fit the shed roof.

Cut the capping stone strips to length and fit on to the wall tops.

9

13 Dormers & Bays.

The Dormer Window.
Fix the grey square dormer former card **G12**. onto the roof about 3 rows of slates down from the ridge tiles.
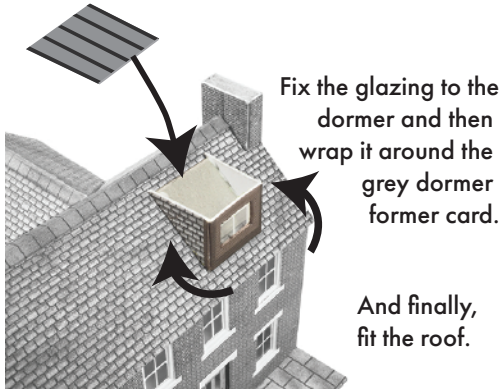
Fix the glazing to the dormer and then wrap it around the grey dormer former card.
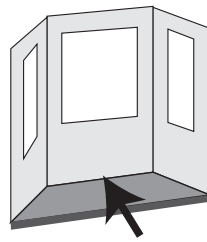
And finally, fit the roof.

The Bay Window.

Fold the two score lines between the windows.
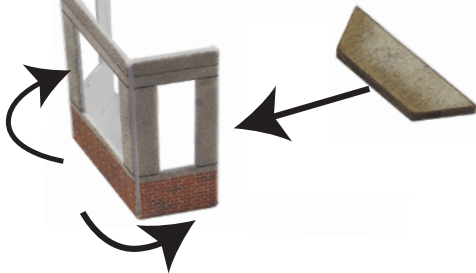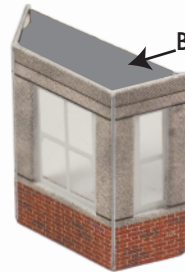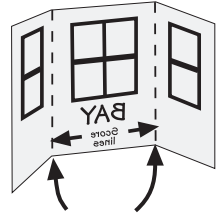

Window covering blackout sheets x 2

Now fit the laser cut inner brace to the base of the bay to hold it in shape like this.

Score the glazing along the two dotted lines and bend it to the shape of the bay window.
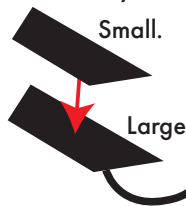
Brace.

Fix the glazing inside the bay and then attach the other laser cut brace into the top.
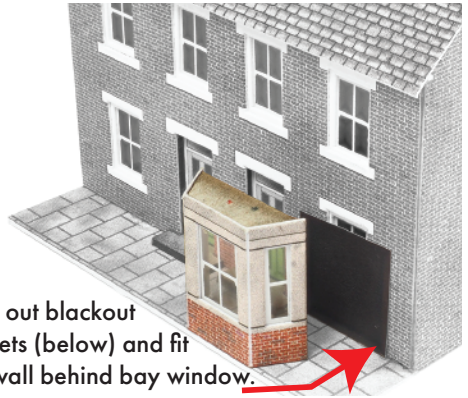
Cut out blackout sheets (below) and fit to wall behind bay window.

Fix the bay roof.

Small.

Large

14 Chimney Pots.

Cut out the terracotta coloured strips (overleaf) roll each one tightly around a metal rod to form a cylindrical shape.
Drill bits, nails or even knitting needles can be used for this job. It needs to be about 2mm. in diameter for N scale though.

Curl the strip slightly first by dragging it over the edge of your worktop underneath your thumb
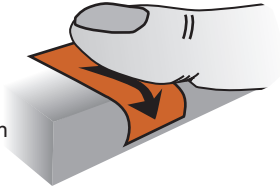
Then roll the strip of pre curled paper around the metal rod.
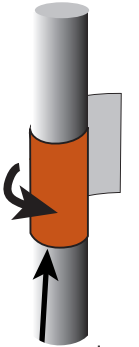
Roll up tight and keep rolling until the paper is fully curled around.

Then unroll the end back out just enough to smear with a little glue, then roll back up and hold tight until the glue has set.
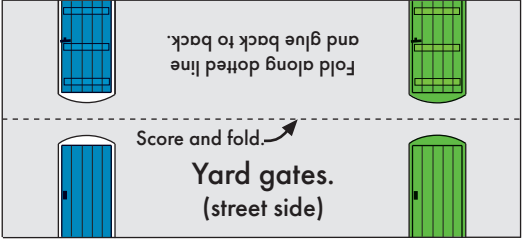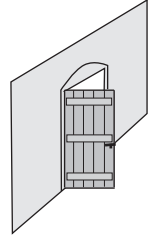
Keep edges straight.

Mount the pots on to the chimney capping stones before fixing to the main chimney stacks.

Small.

Large.
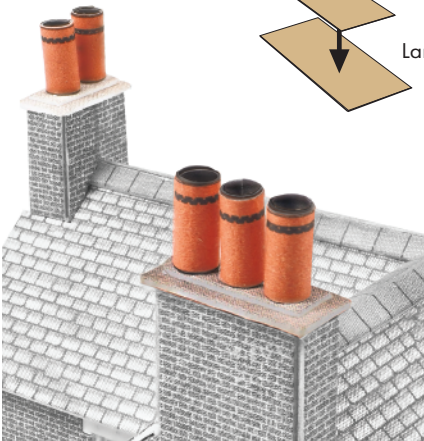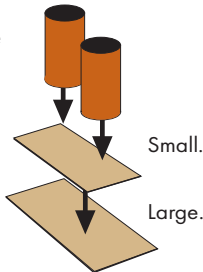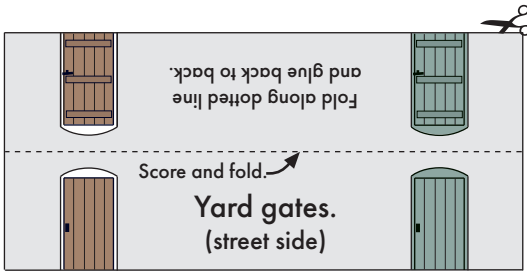
Yard gates.

If you want the gate to open, cut along the top and down one side. Score the hinged side and bend.
This is best done before fitting to the wall.
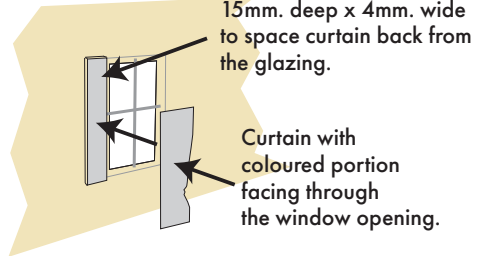
15 Curtains.

The curtains are an optional extra that require a lot of intricate work to complete, but they give the house a nice finishing touch.
To fit the curtains fix a small strip of waste card no more tan 15mm. long and about 4mm. wide down each side of the window.
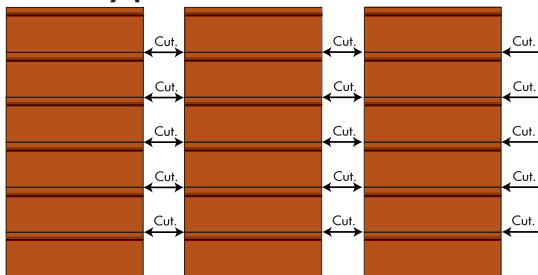
Curtains.

Curtain - Tab.
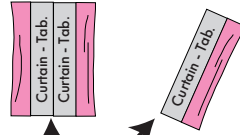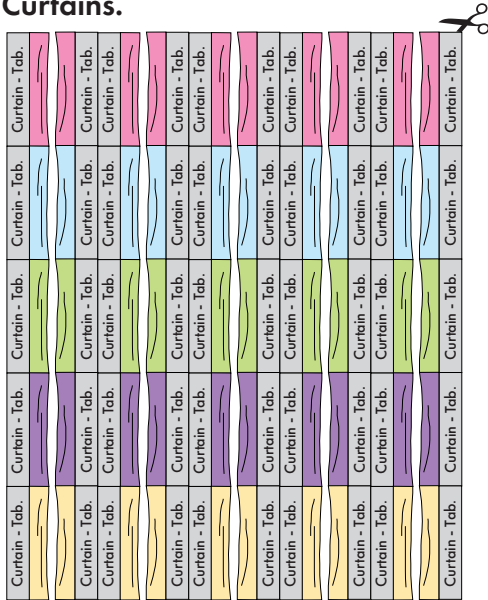
Cut out each individual curtain.

Waste card cut to 15mm. deep x 4mm. wide to space curtain back from the glazing.

Curtain with coloured portion facing through the window opening.

Fit waste card down each side of the window.
CAUTION: Don't allow it to overlap the edges of the window frame, as it may hinder the fitting of inner floors.

Chimney pots

Cut.

Blinds & Net Curtains

This is simple, just cut a small piece of white paper and stick it on the side spacers.

White paper.

Waste card spacers.