The model calf made from this pattern provides an excellent training aid for use by project helpers, extension educators, vocational instructors and classroom teachers. Youth also enjoy using the model when giving demonstrations at club meetings and fairs. The use of velcroed parts and application as a puppet contribute to its versatility.

When a person who is new to the cattle industry is first learning management skills, the model calf offers a practical way to more fully control the learning environment while still providing enough realism to contribute to the learning outcomes desired. Often injury to both animal and individual can be avoided by first practicing on the model before using a live animal.

Some of the management practices that youth have demonstrated using models made from this pattern include the following:

- Identifying Breeds
- Identifying Parts
- Recognizing Strengths and Faults
- Selecting
- Judging
- Castrating
- Delivering
- Caring for the Newborn
- Saving a Weak Newborn
- Taking of Temperature
- Controlling External Parasites
- Administering Medication
- Identifying
- Fitting and Showing
- Making a Rope Halter
- Dehorning
- Implanting
- Identifying Location of Meat Cuts
- Determining Weight
- Trimming Hooves
- Casting
- Removing Extra Teats
- Treating Scours
- Treating Foot Rot
- Giving a Demonstration
- Problem Solving
- Asking Questions
- Risk Taking
- Relating to Others
- Discovering the Excitement of Learning
- Making Decisions
- Developing Leadership Skills
- Using Knowledge
- Facilitating a Group Effort
- Expressing Themselves
- Questioning
- Working Together

This pattern serves as an important training aid for the four guides in the National 4-H Curriculum Beef and Dairy Series.

Beef 1 .................................................... Stock # 08143
Beef 2 ................................................................ 08144
Beef 3 .................................................................08145
Helper’s Guide ....................................................................08146
Dairy 1 ...........................................................................08161
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Find more about these and other National 4-H Curriculum at:
www.4-hcurriculum.org

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Project meetings in which members say they learned the most, as well as enjoyed the most, are those which they were challenged to think for themselves and those in which their ideas were listened to and accepted. One method which allows this to happen is popularly called a Skillathon or “Learning By Doing Before Being Told or Shown How”. As the following flow chart indicates the youth are provided the materials, supplies and resources, given a situation and task to do and are then allowed to come up with their own answers. The helper moves from group to group reinforcing their efforts as needed without imposing “answers”. Not surprisingly both helpers and youth often find that they learn more and feel better about themselves at the conclusion of these meetings.

**Skillathon Model**

1. Form teams of 2 to 5 members.
2. Make supplies available.
3. Provide the teams with realistic situations and tasks to respond to.
4. Step back and allow the teams time to discover their own solutions.
5. Respond to teams’ questions so answers are their own.
6. Listen to teams’ presentations.
7. Accept the teams’ solutions.
8. Ask questions to help them build on what they presented.
9. Reinforce their efforts with praise.

**Examples of Situations and Tasks**

One of the key ingredients to this method is Step 3 “Provide the youth with a realistic situation and a task to respond to.” Situations to which the youth can readily relate will quickly get them involved and working together. Here are some possibilities:

### Describing a Cow’s Digestive System

**Situation:** You are curious about how food moves through a cow’s digestive system.

**Your Task:** Draw the cow’s digestive system and label all the parts you can.

### Ear Tagging

**Situation:** You have a calf who needs to be identified.

**Your Task:** Use the instruments provided and give your calf an identifying number.

### Giving Medications

**Situation:** You have a sick calf that you need to give medication.

**Your Task:** Demonstrate how you would give medication by injection and orally.

### Identifying Parts of a Cow

**Situation:** You have been asked to help the younger members of your project group learn the location of the parts of the cow.

**Your Task:** Work together to match and pin the names with the numbers on the chart.

### Delivering a Calf

**Situation:** Your project cow is having problems delivering her calf unassisted.

**Your Task:** Demonstrate how to deliver the calf.

### Caring for a Newborn Calf

**Situation:** Your cow has just delivered a beautiful heifer calf.

**Your Task:** Demonstrate what to do during the calf’s first 30 minutes of life.

As the youth strive to do the task “their way” many opportunities for helping them develop life skills are presented. The importance of “keeping the ball in the youths’ court” cannot be overemphasized. Being sincerely interested in the personal growth of each individual, observing and listening, staying just out of the way, asking thought provoking questions and praising their efforts will pay tremendous dividends.
**Materials Needed**

- 1 yard fake fur
- 1 felt craft square (9" x 12"), pink, for mouth lining
- 1 felt craft square of a suitable color for nose and nostrils
- 1–4" x 4" piece of red felt for tongue
- 8½" x 9" piece of interfacing
- ¼ yard vinyl or plastic suitable for hoofs and horns
- 12" x 3" piece of stretch fabric for gullet
- 2 craft eyes or shank buttons
- ¼ yard heavy macrame cord
- 2 marbles or beads
- 4 inches velcro (or 4 velcro circles and 1" velcro)
- 2 yards strong string
- 4 inches plastic tubing
- 1 yard pink yarn or heavy crochet thread
- 1 large snap

**Cutting Directions**

1. Remove pattern pages from book. Cut out and assemble pattern pieces for body, outside front leg and outside rear leg, matching lines as directed on pattern. Use paper pattern pieces or trace onto non-woven interfacing.

2. Fold fake fur in half, right sides together. Pin pattern pieces on fake fur, following cutting layout. Cut.

3. Cut nose and nostrils from felt.

4. Cut tongue from red felt.

5. Cut mouth lining from pink felt.

6. Cut 4 horn pieces (pattern piece 10), 8 dew claws (pattern piece 11), 8 upper hooves (pattern piece 19) and 8 hoof pads (pattern piece 20) from vinyl.

7. Cut 2 ear interfacings.

**Marking Directions**

1. Mark dots and X's with chalk or tailor's tacks.

2. Using a basting stitch in a color contrasting with fur fabric, mark ear veins, fold lines, tongue placement and scrotum placement.

**Sewing Instructions**

Use ⅜" seam allowance except where indicated.
**Head and Ears**

1. Make all four darts on back of head and ears (pattern piece 1). With right sides together, match small dots, pin and stitch. Figure 1.

2. By hand, whipstitch heavy macrame cord to wrong side of ear on vein placement markings. Figure 2.

3. Make 1 small round buttonhole in left ear at circle. Figure 2.

4. Baste ear interfacings to wrong sides of ears (pattern piece 2). Figure 3.

5. With right sides together, pin ear (pattern piece 2) to face (pattern piece 3). Match notch and small dots. Ease ear (pattern piece 2) along seamline A. Pin and stitch from small dot to lower edge. Figure 4.

6. With right sides together, pin face and ears (pattern pieces 2 and 3) to back of head (pattern piece 1). Match double notches at top of head and large dots at base of ears.

7. Open darts at top of ears. Fold darts at base of ears down. Pin and stitch around ears and top of head. Figure 5.

8. Trim ear interfacing to \( \frac{1}{4} \) inch. Clip away tips of ears. Figure 5.
Nose

1. With right sides together, match notched edges, pin and stitch seamline B using ⅛ inch seam allowance on nose (pattern piece 4). Figure 6a. Open seam flat, Figure 6b.

2. With right sides together, match small dot on seamline C with seamline B, pin and stitch, using ⅛" seam allowance. Figure 7.

3. To make nostrils (pattern piece 5), fold on markings, pin and stitch seamline D, using ⅛" seam allowance. Do not turn right side out. Figure 8.

4. To join nostril to nose, match seamline C to seamline D, with right sides together. Pin and stitch by hand. Figure 9.
Mouth

1. With right sides together, pin and stitch tongue (pattern piece 6) on three sides, using \( \frac{1}{4} \)" seam allowance. Figure 10a. Turn tongue right side out. Figure 10b.

2. Place open end of tongue on placement marking of mouth lining, matching small dots (pattern piece 7). Pin and stitch. Figure 11.

3. Cut 1 inch slit for gullet at markings on mouth lining. Figure 11.

4. Fold gullet (pattern piece 8) lengthwise, stitch along edge and one end. Figure 12.

5. Bring open end of gullet through opening from back of mouth lining. Roll under \( \frac{1}{8} \)" of gullet to cover raw edge of felt. Figure 13a. Stitch gullet in place by hand, stretching to fit opening, using short, firm stitches. Figure 13b.

6. Fold mouth lining, right sides together, on fold line, matching small dots. Tongue and gullet opening will be on inside. Pin and stitch side seams from fold to small dots. Figure 14.
**Joining Nose to Mouth Lining**

1. With right sides together, match double notches in mouth lining to seamline B on nose. Match medium dots, pin and stitch seamline E between medium dots only, easing to fit. Figure 15.

**Joining Nose and Mouth Assembly to Face and Ears Assembly**

1. With right sides together, match large dot on nose piece (pattern piece 4) to large dot on face (pattern piece 3). Match medium dots on ear pieces 2 with medium dots at ends of seamline F of nose piece. Pin and stitch seamline F. Figure 16.

**Lower Jaw and Neck**

1. With right sides of lower jaw and neck (pattern piece 9) together, pin and stitch seamline G. Figure 17a.
2. Press seam open. Figure 17b.
3. Pin and stitch large dart. Figure 17c.
4. Pin and stitch 2 small darts. Figure 17d.
**Assembling Head**

1. With right sides together, join lower jaw to mouth lining by matching single notch on mouth lining (pattern piece 7) to seamline G on lower jaw (pattern piece 9). Match medium dots at corners of mouth, pin and stitch seamline H. Figure 18a.

2. With right sides together, match medium dots on seamline J of neck (pattern piece 9) with medium dots on ear (pattern piece 2). Pin and stitch seamline J. Figure 18b.

3. With right sides together, match medium dots at base of small darts on neck (pattern piece 9) with medium dots below darts on back of head (pattern piece 1), matching notches. Pin and stitch seamline K from medium dot to lower edge of neck (pattern piece 9). Figure 18c.
Finishing Head

1. Turn head right side out. Pull mouth lining into place. By hand, securely tack corners of mouth lining to side seams close to small darts. Figure 19.

2. Set eyes at X markings. Make one buttonhole closer to lower edge of left ear for ear tag. Figure 20.

3. Sew velcro dots or 1 inch pieces of velcro (loop side) to head at X markings. To make horn buds, cover hook side of velcro (either dots or 1" pieces) with small circles of fake fur; whipstitch in place. Figure 21.

Horns

1. Place two horn pieces (pattern piece 10) right sides together with a length of sturdy string between them as shown. Figure 22a. Stitch string in place as shown.

2. Pin and stitch horn pieces together, leaving 4"–5" of string protruding from open end of horn. Figure 22a.

3. Turn horn by firmly pulling string through open end. Cut string away. Figure 22b.

4. Stuff horn lightly. Trim hook side of velcro to fit open end of horn. Whipstitch velcro over open end of horn. Figure 22c.

5. Repeat steps 1 through 4 for other horn.

Dew Claws

1. To make dew claws (pattern piece 11), fold dew claw pieces on markings, insert string as for horn, above, and stitch 1/4" seams. Turn right side out using string, as for horns above. Figures 22a–22c.

2. Repeat step 1 until all 8 dew claws are assembled.
Legs

1. With right sides of front legs (pattern pieces 12 and 13) together, pin and stitch seams L and M. Figure 23a. Repeat for other front leg.

2. With right sides of rear legs (pattern pieces 14 and 15) together, pin and stitch seams N and O. Figure 23b. Repeat for other rear leg.

3. Cut \( \frac{1}{4} \)" slits in all legs at dew claw markings. Insert tip of dew claw through slit. (Approximately \( \frac{3}{4} \)" of the dew claw will be visible on the right side [furry side] of the leg.) Stitch securely in place by hand, with a portion of the dew claw remaining on the inside on the leg. Figure 23c.

4. Turn legs right side out. Figure 24.

Attaching Legs to Body

1. With right sides together, pin leg to body, matching large dots and notches, easing legs to fit leg openings. Figure 25a. (This procedure is similar to setting in a sleeve.) Clip body piece on clipping lines to large dots. Stitch.

2. Repeat until all four legs are attached in the same manner. Figure 25b.
Tail

1. Fold tail (pattern piece 17) as shown. Stitch from small dot to end of tail. Figure 26a.

2. Press seam open. Figure 26b.

3. With right sides together, match small dot on tail to small dot on body. Match large dot on tail to large dot on body, as shown in figure 27a. Pin and stitch.

4. Repeat on other side as shown in figure 27b. Clip away point.
**Body**

1. Fold body in half, right sides together. Pin seamline P from dot to large triangle. Pin seamline Q from neck opening to large triangle. Stitch, being careful to keep legs free of seamline. Leave open between triangles. Figure 28.

2. Pin large dart at rear of body and stitch. Figure 29a.

3. Insert 4-inch piece of plastic tubing at the point where tail seam joins body seam at base of tail. Figure 29b.

4. Turn body and tail right side out for ease of stitching. Stitch in place by hand. Figure 29c. For additional realism, use pink or red thread for stitching.

**Attaching Head to Body**

1. Turn body inside out again.

2. Insert head in body cavity, right sides together, matching body seam Q to neck seamline G. Match double notch on head to double notch on body. Pin and stitch. Figure 30.

3. Turn calf right side out. Stuff whole calf. Stitch closed by hand between large triangles.
**Scrotum**

1. Fold scrotum (pattern piece 18) on fold line, right sides together, matching small dots.
2. Stitch from folded edge to small dots, using 1/4" seam allowance. Figure 31a.
3. Clip seam allowance on markings close to small dots; fold edge to inside and whipstitch. Figure 31b.
4. Whipstitch hook side of velcro to inside of one side of scrotum, as shown; stitch loop side of velcro to other side of scrotum. Figure 31b.
5. Turn right side out. Insert two marbles or beads into scrotum; close with velcro. Figure 31c.
6. Whipstitch scrotum to body along seam line between rear legs as shown in figure 32.

**Umbilical Cord**

1. Using yarn or heavy crochet thread, twist or crochet an umbilical cord 5 inches long.
2. Sew half of snap to cord.
3. Sew other half of snap directly onto seamline P, two inches in front of scrotum. Figure 32.
Hooves

1. Fold upper hoof (pattern piece 19) in half with right sides together, matching small dots. Stitch seamline S from small dots to lower edge of hoof piece. Figure 33a. Open seam. Figure 33b.

2. With right sides together, matching small dots and notches; pin hoof pad (pattern piece 20) to upper hoof. Figure 34. For easier stitching, machine stitch with pad side down.

3. Turn right side out. Stuff lightly. Figure 35.

4. Repeat steps 1–3 for second part of hoof; then repeat steps 1–4 until all 8 hoofs are completed.

5. Matching back seams of two hoof parts, join inside top edges of hoof parts from back seams to medium dots. By hand, whipstitch inside top edges together from back seam to medium dots, being careful not to catch in outer edges of hoof parts. Figure 36.
**Attaching Hoof to Leg**

1. Turn bottom edge of leg to inside; baste. Figure 37.

2. Insert hoof assembly into leg tube so that hoof pads meet at rear leg seamline, as shown in figure 38. Whipstitch in place by hand with matching thread. Remove basting thread.

3. If hoof parts splay excessively, tack together in one spot with matching thread. Figure 39.

4. Repeat for remaining three legs.

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**Finishing**

1. Turn end of tail to inside as for legs, above. Figure 37.

2. Make a bundle of yarn pieces about 7" long; secure in the middle. Figure 40.

3. Insert secured end of bundle into tail opening, whipstitch in place. See finished calf, figure 41.
Pattern for Realistic Calf

12a
Outside Front Leg
(upper part)

Cut 2

Tape this line to pattern piece 12b before layout and cutting

12b
Outside Front Leg
(lower part)

Tape this line to pattern piece 12a before layout and cutting

Must be printed on 11"x17" paper.
Pattern for Realistic Calf

Place on fold

Seamline K

Buttonhole (left side only)

Seamline F

Cut one of stretch fabric

2

Front of Ear and Side of Head

Cut 2

Upper Hoof

Cut 8 of vinyl

Seamline S

Placement for ear vein

19

Head

Cut 1 on fold (fur)

20

Hoof Pad

Cut 8 of vinyl

8

Gullet

Cut one of stretch fabric

Must be printed on 11"x17" paper.
Pattern for Realistic Calf

6
Tongue
Cut 2 of red felt
¼" Seam Allowance

9
Lower Jaw and Neck

16a
Body (front part)

18
Scrotum fold line
Cut 1 of fur velcro

Tape this line to pattern piece 16b before layout and cutting.

Must be printed on 11"x17" paper.
Must be printed on 11" x 17" paper.

11 Dew Claw
Cut 8 of vinyl

10 Horn
Cut 4 of vinyl

4 Nose
Seamline B
Seamline C

17 Tail
Cut 1 of felt

Mouth Lining
Cut 1 of pink felt

11 Dew Claw
Cut 8 of vinyl

All seam allowances 1/4"

Tongue placement
Placement for gullet

Fold line

Seamline B
Seamline C
Seamline D
Seamline E
Seamline F

Pattern for Realistic Calf (Page 4 of 7) www.4-hcurriculum.org
Pattern for Realistic Calf

**Body (rear part)**

Tape this line to pattern piece 16b before layout and cutting

**Ear Interfacing**

Cut 2

**Nostril**

Cut 2 of felt

**Seamline D**

- Cut out and remove

**Seamline P**
Outside Rear Leg (upper part)

Cut 2

Seamline N

14a

Outside Rear Leg (lower part)

Tape piece 14a to this line

Leave this edge open

Tape this line to pattern piece 14b

Tape this pattern piece 16c to this line before layout and cutting

Seamline O

14b

Body (center part)

Cut 2

16b

Must be printed on 11” x 17” paper.
Must be printed on 11” x 17” paper.