

# Grade Two Unit One

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blackline 1.16, A Unifix Cube Growing Pattern Problem
- Blackline 1.18, 2's Chart record sheet
- Blackline 1.19, Finding 2's On the Hundreds Grid
- Blackline 1.20, Patterns & Problems with 2's
- Blackline 1.21, Venn Diagram Sorting Mats (run 1 copy for each group of 3–4 children)
- Blackline 1.37, A Tile Growing Pattern Problem
- Blackline 1.38, A Tile Growing Pattern: challenge sheet (run a few copies, optional)

## Work Place Blacklines

Run 30 copies and place in a folder unless otherwise indicated.

- Blackline 1.3, Work Places 1 Planner (run a class set and staple to front of each student's work folder)
- Blackline 1.13, Work Places 2 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 1 Planner)
- Blackline 1.14, Match the Beetle record sheet
- Blackline 1.15, Geoboard record sheet
- Blackline 1.22, Work Places 3 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 2 Planner)
- Blackline 1.23, An Hour or Bust! record sheet
- Blacklines 1.24–1.29, Which One Doesn't Belong? record sheet (run 10 copies of each sheet and place in pocket folders)
- Blackline 1.30, Which One Doesn't Belong? Invention Sheet
- Blacklines 1.31–1.33, Which One Doesn't Belong? Clip Art (run 6 copies of each sheet and place in folders)

## Assessment Blacklines

- Blacklines 1.1–1.2, Pattern Assessment sheets 1–2 (run 2 class sets of each)
- Blackline 1.17, Individual Interview: Addition & Subtraction, Place Value (run a class set)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 1.1–1.3
- Blacklines HC 2.1–2.3
- Blacklines HC 3.1–3.5
- Blacklines HC 4.1–4.4

## Beetle Glyphs

In Sessions 3–4 students will make beetles to represent information about themselves. The following supplies will be needed.

- Blacklines 1.5–1.10, Beetle Glyph Key (run 1 copy of each blackline on paper or cardstock. Assemble as shown on Blackline 1.4.)
- Blacklines 1.11–1.12, Beetle Shape—Boy and Beetle Shape—Girl (run 8 copies of each shape on each of these colors of construction paper—yellow, orange, blue, green. This will probably give you enough for this year and some for next.)
- 2 sheets of 9" × 12" black construction paper cut into  $\frac{1}{2}$ " × 3" strips
- ten 3" × 3" pieces of construction paper in each of the following 4 colors: red, brown, white, and turquoise or light blue
- about 30 pieces of 3" × 9" paper

## Churn Dash Quilt

In Session 19–21 students will make paper Churn Dash quilt blocks, devise a quilt layout, and assemble the quilt. The following materials will be needed.

- Blackline 1.34, Churn Dash Quilt Block
- 2" × 2" squares of construction paper and/or gift wrap in 3 different colors
  - Color 1, 2 squares per child
  - Color 2 (possibly a gift wrap print), 2 squares per child
  - Color 3, 5 squares per child
- Blackline 1.35, Quilt Layout Problem sheet (optional)
- Blackline 1.36, Centimeter Square Graph Paper (optional)
- butcher paper (You'll probably need about a yard of 36" wide butcher paper, but the exact dimensions will depend on how many quilt blocks your class made and how the children decide to arrange them.)

## Paper

### Session 10

Students will brainstorm things that come in 2's and draw a picture of the selected idea to be mounted on a wall chart.

- 30 or more 5" × 5" white construction paper squares
- a piece of butcher paper, about 36" × 48" folded into 6, 7, or 8 rows, depending on the size of your class (A class of 21 or fewer will need 6 rows; between 21 and 28 will need 7 rows; over 28 will need 8 rows.)

## Books

- *The Button Box* by Margarett Reid (optional)
- a book that emphasizes the relationship between quilting and community—*Sam Johnson: Blue Ribbon Quilt* by Lisa Campbell Ernst or *The Patchwork Quilt* by Valerie Flourney are both nice.

# Grade Two Unit Two

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blacklines 2.1–2.4, Can You Line Them Up? problems 1–4 (run 10 copies of each)
- Blackline 2.5, Ants: What Do You Know? What Do You Wonder?
- Blackline 2.20, Ant Note Sheet (run a class set plus a few extra)
- Blackline 2.30, Ant Spreadsheet (run 2 class sets plus a few extra)
- Blacklines 2.42–2.43, Math-Talk Bubbles for Hungry Ant Picture Problems (run 1 copy of each and cut apart)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 5.1–5.3
- Blacklines HC 6.1–6.4
- Blacklines HC 7.1–7.4

## Books & Wall Charts

### Large books & wall charts

Run a copy of each page to create a wall chart or book.

- Blacklines 2.6–2.12, Ants Here, Ants There
- Blacklines 2.13–2.17, Ants Poem
- Blacklines 2.21–2.24, Army Ants
- Blacklines 2.21–2.24, Harvester Ants
- Blacklines 2.31–2.36, Leaf Cutter Ants
- Blacklines 2.31–2.39, Formica Ants

### Class poems & songs

Run a class set of the small version of each poem or song to give students.

- Blackline 2.18, Ants Here, Ants There
- Blackline 2.19, Ants Poem
- Blackline 2.28, Army Ants
- Blackline 2.29, Harvester Ants
- Blackline 2.40, Leaf Cutter Ants
- Blackline 2.41, Formica Ants

## Books, Videos & Films

- *One Hundred Hungry Ants*, by Elinor J. Pinczes
- a book, video, film, or filmstrip about ants (See the introduction to this unit, pages 121–122, for a list of good resources.)

## Hungry Ant Story Problems

During Session 8, 9, and 11, 12, students create their own ant story problems. Choose either the color-in or the collage method for making the picture problems.

### Needed for both methods

- Blacklines 2.44–2.45, Ant Cutouts (run 15 copies of each sheet, cut page in half by type of ant)
- 200-400 half sheets of white copier paper ( $5\frac{1}{2}'' \times 8\frac{1}{2}''$ ) for Sessions 11–12

### Color-In Method

- Blacklines 2.46–2.47, run a class set of the Ant Tunnel Background and Doors

### Collage Method

Each student will need:

- 9" × 12" light blue construction paper for background
- 6" × 12" light brown paper to create ant nest
- 3" × 6" gray or dark brown paper for rocks and logs
- 3" × 4" black paper for ant chamber door
- scraps of green and brown paper for seeds, grass, leaves, plants, etc.
- half sheet of lined paper for writing the story
- white construction paper cut into talking bubble shape

# Grade Two Unit Three

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blackline 3.2, Roll & Add record sheet (run a half-class set)
- Blackline 3.3, Shake, Reach & Record 7's record sheet
- Blackline 3.5, Roll & Subtract record sheet (run a half-class set)
- Blackline 3.22, Building & Recording Doubles & Neighbor Numbers
- Blackline 3.23, Cover Up game sheet (run a class set plus a few extra)
- Blacklines 3.24–3.25, Kids in the House, sheets 1–2
- Blackline 3.30, Crossing the Pond record sheet
- Blackline 3.31, Scout Them Out 1
- Blackline 3.32, Scout Them Out 2
- Blackline 3.33, Scout Them Out 3
- Blackline 3.34, Scout Them Out 4
- Blackline 3.35, Scout Them Out 5

## Work Place Blacklines

Run 30 copies and place in a folder unless otherwise indicated.

- Blackline 3.6, Work Places 4 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 3 Planner)
- Blackline 3.7, Work Places 4 & 5 Arithmetic Observation sheet (run a class set and label each with a child's name)
- Blacklines 3.8–3.12, Shake, Reach & Record record sheets (run 15 copies of each sheet and place in a folder)
- Blackline 3.13, Spin & Add record sheet
- Blackline 3.14, Spin & Subtract record sheet
- Blackline 3.15 and/or 3.16, Cats & Mice record sheet (see Session 7, pages 238–239, to decide which version of Cats & Mice to use with your class)
- Blackline 3.17, Bucket O'Bugs record sheet
- Blackline 3.23, Cover Up game sheet
- Blacklines 3.24–3.29, Kids in the House, sheets 1–6
- Blackline 3.30, Crossing the Pond record sheet
- Blackline 3.41, Work Places 5 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 4 Planner)
- Blackline 3.42, Battling Bugs record sheet (or 3.43, the Getting Started Version)
- Blacklines 3.36–3.40, Scout Them Out 6–10 (run 15 copies of each and place in folders)

## Assessment Blacklines

- Blackline 3.1, Addition Assessment Sheet (run 2 class sets)
- Blackline 3.4, Subtraction Assessment Sheet (run 2 class sets)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 8.1–8.4
- Blacklines HC 9.1–9.3
- Blacklines HC 10.1–10.5
- Blacklines HC 11.1–11.5

## Books

- *12 Ways to Get to 11* by Eve Merriam
- *The Josephina Story Quilt* by Eleanor Coerr

## Fall/Winter Character Quilt

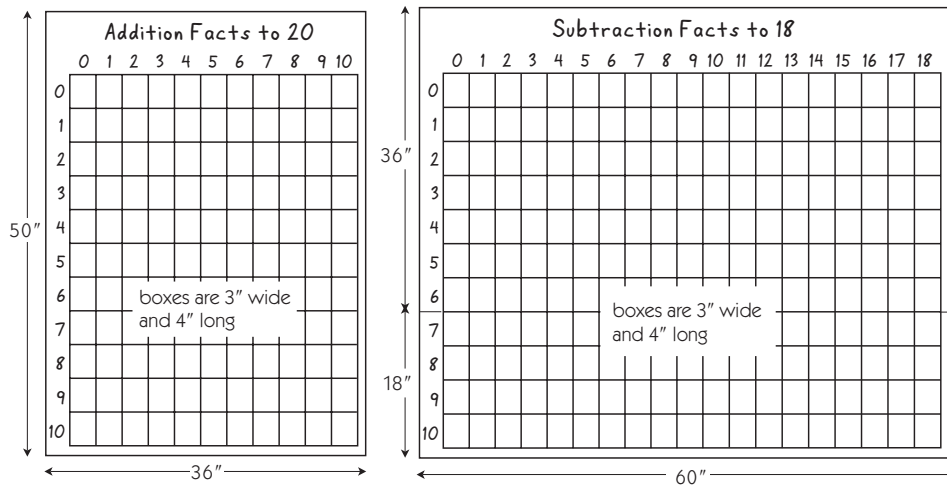
In Sessions 10–11 students will create a Fall/Winter Character Quilt

- Blackline 3.18, Fall/Winter Character Quilt Blocks, sheet 1 (run a half-class set and cut in half)
- Blacklines 3.19–3.20, Fall/Winter Character Quilt Blocks, sheets 2 or 3 (see page 248 of the Teachers Guide for helpful notes for this project.)
- 1" construction paper squares cut in the following colors: yellow, red, green, black, brown, tan (or manila), and orange
- scraps of construction paper in yellow, green, blue, brown, red, pink, and black for adding features to the cats and scarecrows or woodcutters
- Blackline 3.21, 1" Square Graph Paper (run a class set)
- 1" squares of construction paper in the following colors: red, orange, black, and brown (or red, green, tan, and brown if your class has made the apple, fir tree, woodcutter, and cat blocks.) Students use these squares to try out a variety of quilt layouts.

## Addition Facts to 20 Chart & Subtraction Facts Chart

In Session 2 Students work together to create a class chart of addition facts to 20. The follow supplies will be needed.

- 36" x 50" butcher paper chart as shown below
- 130 2" x 3" white construction paper slips



In Session 5 students work together to create a class chart of subtraction facts. Collect paper materials below to create the chart.

- two 60" lengths of 36"-wide butcher paper (Cut 1 length in half lengthwise, glue or tape it to bottom of the 60" x 36" piece, as shown above.)
- 220 2" x 3" white construction paper slips

# Grade Two Unit Four

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blackline 4.4, Faces, Edges & Corners
- Blackline 4.5, Last Shape In Wins (run a half-class set)
- Blackline 4.16, Build-4-Less sheet 1 (run a half-class set)
- Blackline 4.22, Triangle Draw sheet (Run 1 copy and make a completed model of this sheet.)
- Blacklines 4.23–4.24, If a Triangle is Worth 1 sheets 1–2
- Blacklines 4.25–4.26, If a Triangle is Worth 1 challenge sheets 1–2 (optional)
- Blackline 4.27, If the 4-Peg Square is Worth 1 (run a half-class set)
- Blackline 4.28, Geoboard Square Measuring Sheet (run a half-class set)
- Blackline 4.29, If a Square is Worth 1: Exploring Area with Patchwork Quilts (run a class set)
- Blacklines 4.30–4.33, What's It Worth? sheets 1–4 (run a half-class set of each sheet plus a few extras)
- Blacklines 4.48–4.49, Shape Cards sheets 1–2 (run a class set on construction paper or cardstock. Make at least 2 extra sets.)

## Work Place Blacklines

Run 30 copies and place in a folder unless otherwise indicated.

- Blackline 4.6, Work Places 6 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 5 Planner)
- Blacklines 4.7–4.10, Faces of Mystery sheets 1–4 (run 15 copies of each sheet and place in a folder)
- Blacklines 4.11–4.14, How Can You Build It? sheets 1–4 (run 20 copies of each sheet and place in a folder)
- Blackline 4.15, Caterpillar Fill & Add record sheet
- Blacklines 4.16–4.21, Build-4-Less sheets 1–6 (run 15 copies of each sheet and place in a folder)
- Blackline 4.22, Triangle Draw
- Blackline 4.34, Work Places 7 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 6 Planner)
- Blackline 4.35, No More Than 80
- Blacklines 4.36–4.39, Halves & Half-Notes sheets 1–4 (run 15 copies of each sheet and place in a folder)
- Blacklines 4.40–4.43, Find the Area sheets 1–4 (run 15 copies of each sheet and place in a folder)
- Blacklines 4.44–4.47, Make the Area sheets 1–4 (run 15 copies of each sheet and place in a folder)

## Assessments

- Blacklines 4.1–4.3, Thinking About Shapes (run 2 class sets of each page)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 12.1 –12.2
- Blacklines HC 13.1 –13.4
- Blacklines HC 14.1 –14.3
- Blacklines HC 15.1 –15.4
- Blacklines HC 16.1–16.4

## Book

- *A Cloak for the Dreamer* by Aileen Friedman

## Growing Patterns Making a Chart of 3's with Snow People

In Sessions 22–23 students make snow people with paper “snowballs” and create a chart of counting by 3's. Several activities that make use of the chart occur in Sessions 24–25. The following supplies will be needed.

- Blackline 4.50, The Paper Circles Problem (run a class set plus a few extra)
- Blackline 4.51, Paper Circles Pattern Sheet, 3 white construction paper circles for demonstration purposes and one set of 3 for each child. (You can cut these yourself, using the patterns on the blackline, or you can run a class set of the blackline on construction paper, so children can cut their own.)
- a piece of 6" × 10" light blue construction paper for each child to use as a background for his or her snow person
- scraps of construction paper in various colors for snow people eyes, noses, hats, etc.
- a piece of white or pastel butcher paper roughly 55" wide and 91" long (You'll have to piece together the right size chart for your class, knowing that 7 rows, sized 13" × 55" each, will accommodate 28 snow people.)
- Blackline 4.52, 3's Chart record sheet
- Blackline 4.53, Finding 3's on the Hundreds Grid (run a class set plus a few extra)
- Blackline 4.54, Patterns & Problems with 3's

## Patchwork Invention Mini-Quilts

In Session 11 students will use triangles or rectangles to invent their own quilt blocks. The following supplies will be needed

- 4" squares of white copier paper (3 squares per child plus a few extra)
- 2" squares of construction paper in 2 different colors (4 squares in each color for each child, and a few extra)

In Session 12 students explore the symmetry of their quilt blocks and in Session 13 students make 4 copies of a quilt block they like. The following supplies will be needed for each child.

- one 8" square and four 4" squares of white copier paper
- eight 2" squares of construction paper in each of 2 different colors (The same 2 colors are used for all the children.)

## Paper

### Session 14

- about 100 1" squares of construction paper in each of 2 different colors

### Session 17, Work Place 7D

- 4" and 8" squares of copier paper
- 2" squares of construction paper in several different colors

# Grade Two Unit Five

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blacklines 5.4–5.5, Talk Bubbles for Presents & Parcels Picture Problems sheets 1–2 (run a single copy of each sheet and cut the bubbles apart)
- Blacklines 5.9–5.11, Beat You To \$1.00 graphs 1–3 (run 1 copy of each)
- Blackline 5.12, Scoop 100 record sheet (run 1 copy)
- Blackline 5.13, Find the Mass record sheet (run 1 copy)
- Blackline 5.19, Base Ten Triple Spin record sheet (run a class set. If you don't have a hundreds chart posted in your Number Corner, run a few copies of Blackline 1.19)
- Blackline 5.20, Candy Colors record sheet
- Blackline 5.21, Graphing Form
- Blackline 5.22, Candy Graph Analysis Sheet
- Blackline 5.23, Which Makes the Most Sense? worksheet (run a class set)
- Blacklines 5.24–5.25, Hawaiian Dream Vacation mini-gameboards (run a class set on 8<sup>1</sup>/<sub>2</sub>" x 14" paper)
- Blacklines 5.26–5.30, Hawaiian Dream Vacation Pineapple Bucks (run each denomination on a different color copier paper and cut the bills apart. You will need 3 copies of \$1's, 2 copies each of \$5's and \$10's, 1 copy each of \$25's and \$100's.)
- Blackline 5.31, 3 Hawaiian Dream Vacation Bank Sheet (run 1 copy)
- Blackline 5.32, 6 Hawaiian Dream Vacation Money Guide (run 1 copy)
- Blacklines 5.33–5.35, Beat You to \$2.00 graphs (run 1 copy of each)
- Blackline 5.41, What's Your Average Handful?
- Blackline 5.42, What's the Average Handful for Your Group?

## Work Place Blacklines

Run 30 copies and place in a folder unless otherwise indicated.

- Blacklines 5.9–5.11, Beat You To \$1.00 graphs 1–3 (run 1 copy of each)
- Blackline 5.12, Scoop 100 record sheet
- Blackline 5.13, Find the Mass record sheet
- Blackline 5.14, Work Places 8 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 7 Planner)
- Blackline 5.15 Work Places 8 & 9 Observation Sheet, Money & Place Value (run several copies)
- Blackline 5.16, 25¢ or Bust! record sheet
- Blackline 5.17, Handfuls of Treasure record sheet
- Blackline 5.18, Beat You to \$1.00 record sheet

- Blackline 5.19, Base Ten Triple Spin record sheet
- Blacklines 5.26–5.30, 3 Sets of Hawaiian Dream Vacation Pineapple Bucks (Each set should contain 35 ones, 30 fives, 30 tens, 12 twenty-fives, and 10 hundreds. Run each denomination on a different color copier paper and cut the bills apart.)
- Blackline 5.31, Hawaiian Dream Vacation Bank Sheet (run 3 on cardstock)
- Blackline 5.32, Hawaiian Dream Vacation Money Guides (Run 6 on cardstock and laminate if desired.)
- Blackline 5.36, Work Places 9 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 8 Planner)
- Blackline 5.37, Pick 2 record sheet
- Blackline 5.38, Make 100! Under or Over? record sheet
- Blackline 5.39, Beat You to \$2.00 record sheet
- Blackline 5.40, Shopping for Key Chain Charms record sheet

## Assessments

- Blacklines 5.1–5.3, Money & Place Value Assessment, sheets 1–3 (run 2 class sets of each)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 17.1–17.6
- Blacklines HC 18.1–18.4
- Blacklines HC 19.1–19.5
- Blacklines HC 20.1–20.5
- Blacklines HC 21.1–21.4
- Blacklines HC 22.1–22.6
- Blacklines HC 23.1–23.4

## Book

- *More M&M's Math* by Barbara McGrath (optional; this book provides a cute preview of some of the activities in Sessions 18–20.)

## Presents & Parcels Picture Problems

Children will create and work with picture problems in Sessions 4–8. Choose either the Color-In or the Collage Method for making the picture problems.

### Color-In Method

You'll need the following supplies for each child, plus a few extra.

- Blacklines 5.6–5.7, Presents & Parcels Picture Problem backgrounds 1–2 (run some of each, each child will use only 1 of the 2 backgrounds)
- Blackline 5.8, Presents & Parcels (1 sheet)
- 3" × 6" brown paper for closet door
- white construction paper cut into talking bubble shape
- half sheet of lined paper for writing story

### Collage Method

You'll need the following supplies for each child, plus a few extra.

- Blackline 5.8, Presents & Parcels (1 sheet)
- 9" × 12" white construction paper for background
- 3" × 6" brown paper for closet door
- 3" × 4" brown paper for table
- 4" × 5" red paper for fireplace
- scraps of many different colors for balloons, decorations, people, etc.
- white construction paper cut into talking bubble shape
- half sheet of lined paper for writing story

In Sessions 7–8 students solve the newly-created picture problems. The following supplies will be needed.

- 200–400 half sheets of white copier paper 5½" × 8½"
- half sheet of white construction paper

## Paper

### Session 12

- 2 pieces of railroad board cut to 1¾" × 2¼"

# Grade Two Unit Six

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blackline 6.1, Marble Roll Experiment 1 record sheet
- Blackline 6.2, Marble Roll Experiment 2 record sheet
- Blackline 6.3, Marble Roll Experiment 3 record sheet
- Blackline 6.4, Marble Roll graphing sheet (run a class set and some extras for children who have time to make a second graph)
- Blacklines 6.5–6.8, Marble Roll Problems (run a copy of each sheet and cut the problems apart)
- Blackline 6.9, Marble Roll Picture Menu
- Blacklines 6.10–6.12, Thinking Back About Marble Rolls: What Have We Learned?

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 24.1–24.3
- Blacklines HC 25.1–25.2
- Blacklines HC 26.1–26.4

# Grade Two Unit Seven

## Problems & Investigations Blacklines

Run a class set unless otherwise indicated.

- Blackline 7.1, Dollar Bills for Money Kits (Each kit should contain 5 blackline dollar bills, 4 quarters, 10 dimes, 10 nickels, and 20 pennies. Prepare a half-class set of kits.)
- Blacklines 7.16–7.18, Fair Shares: Sharing 1's, Sharing 2's, and Sharing 3's
- Blackline 7.19, Bug Spinners (run a half-class set on cardstock or construction paper. Children will cut the spinners apart and attach paper clip arrows.)
- Blacklines 7.20–7.21, Bug Spinner record sheets 1–2 (run a half-class set of each sheet)
- Blackline 7.22, Pick & Peek (run a half-class set)
- Blackline 7.23, Anything But 1! data sheet (run a half-class set)
- Blacklines 7.37–7.42, Toy Store Shopping Problems 1–6 (run a half-class set, or less, of each blackline)
- Blacklines 7.43–7.44, math-talk bubbles for each problem (run 1 copy of each sheet and cut the bubbles apart)
- Blackline 7.45, Toy Survey Form (run a class set plus a few extra)
- Blackline 7.50, Find Someone Who... game sheet (run a class set plus a few extra)
- Blackline 7.51, Survey Planning Sheet
- Blackline 7.52, Survey Graphing Sheet
- Blackline 7.53, Survey Analysis Sheet (optional)

## Work Place Blacklines

Run 30 copies and place in a folder unless otherwise indicated.

- Blackline 5.15, the Observation Checklists you may have started keeping on students during Unit 5 (optional)
- Blacklines 7.14–7.15, Graphing the Glyphs: bar graph form and pie graph form (run 20 copies of each and place in a folder)
- Blackline 7.24, Work Places 10 Planner (run a class set and staple to front of each student's work folder, replacing Work Places 9 Planner)
- Blacklines 7.25–7.30, Fair Shares sheets (run 15 copies of each double-sided sheet and place in a folder)
- Blackline 7.31, Cookies for Fair Shares (run 15 copies on cream or light brown paper and place in a folder)
- Blackline 7.32, The Gardener's Friend game sheet
- Blackline 7.33, Pick & Peek: Which One Is It?
- Blackline 7.34, Anything But 1! game sheet
- Blackline 7.35, Anything But 1! class graph (run 1 copy)
- Blackline 7.36, The Indy 500 record sheet

## Assessment Blacklines

- Blacklines 7.2–7.5, Shopping with Arthur & Violet assessment sheets (run 2 class sets)

## Home Connection Blacklines

Follow instructions found on Home Connection blacklines.

- Blacklines HC 27.1–27.3
- Blacklines HC 28.1–28.4
- Blacklines HC 29.1–29.4
- Blacklines HC 30.1–30.5
- Blacklines HC 31.1–31.3
- Blacklines HC 32.1–32.5

## Book

- *Arthur's Funny Money* by Lillian Hoban

## Robot Glyphs

In Sessions 3–4 students will make, sort, and graph Robot Glyphs. The following materials will be needed.

- Blackline 7.6, Robot Glyph Key (run a half-class set)
- Blacklines 7.7–7.12, large Robot Glyph Key (run 1 copy of each sheet and assemble as shown on Blackline 7.6)
- Blackline 7.13, Square Inch Grid Paper for Robot Glyphs
- Blacklines 7.14–7.15, Graphing the Glyphs: bar graph form and pie graph form (run 20 copies of each sheet)
- 1" × 12" strips of white construction paper for arms and legs, 1 per student
- 3" × 5" pieces of white construction paper for heads and feet, 3 per student
- 3" × 5" pieces of black construction paper for wheels, 2 per student
- fifteen 2" × 5<sup>1</sup>/<sub>2</sub>" strips of white paper
- twelve 3" × 5" index cards

## Sharing Candy Bars Fairly

In Session 5 Students explore division and fractions by sharing candy bars. The following supplies will be needed.

- 5 pieces of 3" × 6" brown construction paper
- about 200 pieces of 2½" × 1¼" brown construction paper
- 2 Fun-Size candy bars for every 3 children in your class
- about 10 plastic serrated knives
- paper towels or small paper plates

## Toy Store Picture Problems

In Sessions 18–23 students create Toy Store Picture Problems, review guidelines for writing good explanations in math, and solve their classmates' problems. Students also critique a solution for their problems. The following supplies will be needed.

- Blacklines 7.46–7.47, Toy Store Backgrounds 1–2 (run some copies of each type—The Delivery Truck for delivery problems and The Store for shopping problems)
- Blackline 7.48, Truck Flaps (run and cut several copies of these sheets—each makes 4 truck flaps)
- Blackline 7.49, Cases, Boxes & Singles (run half-class set, cut in half)
- half sheets of lined paper for students to write their stories
- 3" × 4" pieces of white construction paper cut into talking bubble shapes
- a copy of your class Guidelines for Writing Good Explanations in Math, either on a chart or as an overhead transparency. (These guidelines were developed during the Presents & Parcels story problem theme in Unit Five.)
- rating sheet based on the above Guidelines (run a class set)
- 200–400 half sheets of white copier paper, 5½" × 8"