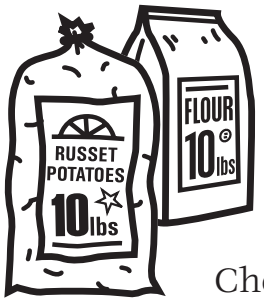
Home Connection 24 ★ Activity

NOTE TO FAMILIES

As your child learns to weigh things, it's important for him or her to develop "unit sense"; to begin to understand that a pound of butter might be a reasonable amount to buy for your family, but that a pound of potatoes probably wouldn't be enough. This week's Home Connection Activity is designed to help your child find out more about weight, as you work together to find things around your house that are lighter than, heavier than, and just about the same as 10 pounds. In order to do this activity, you'll need something that weighs 10 pounds, like a 10-pound sack of flour or potatoes. If you don't have either of these items in the house, have your child help you hunt around until you find something that weighs 10 pounds on the bathroom scale. Ideally, your child should be able to pick this item up in order to feel how heavy 10 pounds really is.

Weight A Minute!



Find something around your house that weighs 10 pounds. Pick it up and hold it for a minute until you get a good sense of how heavy it is. A young baby might weigh this much. Do you think a cat would? Now search for things that are lighter than, heavier than, and exactly the same weight as your 10-pound object. Choose things that you can actually pick up, so you can feel their weight. You can use your bathroom scale to help with this job, but the best way to start understanding how heavy things are is to pick them up.

Things that are lighter than 10 pounds	Things that weigh very close to 10 pounds	Things that are heavier than 10 pounds

NAME _____ **RETURN BY** _____

Home Connection 24 ★ Worksheet

NOTE TO FAMILIES

In this exercise, children will be examining the weights of various penguins, finding totals in some cases and differences in others. As in so much of our work, there is only one correct answer to each problem, but many different ways to reach the solution. Although it might be tempting to step in and show your child what you regard as the quickest and most efficient way to solve some of these problems, we urge you to hold back. You might be surprised to find that your child is counting upward from the lower number to find the difference, maybe by 1's, but possibly by 10's and then 1's. In finding totals, your child might be using sketches of base ten pieces or working from the front end, adding the 10's and then the 1's. While some of these methods might not be enormously efficient, they are important steps toward developing the understanding necessary to support the quicker ways your child will adopt over the next few months.

Working with Penguin Weights

Here are the weights of 6 different types of penguins. Use this chart to answer the questions below.

Penguin Weights*

Emperor penguin	90 pounds
King penguin	35 pounds
Adelie penguin	10 pounds
Gentoo penguin	14 pounds
Chinstrap penguin	9 pounds
Rockhopper Penguin	6 pounds

* These numbers reflect maximum weights.

1 Which penguin is heaviest?

_____

_____

_____

2 Which penguin is the lightest?

_____

_____

_____

3 Name something that weighs about the same as an Adelie penguin:

_____

_____

_____

4 How much more does the Emperor weigh than the Adelie? _____

(Continued on back.)

Home Connection 24 Worksheet (cont.)

5 How much more does the King penguin weigh than the Gentoo? _____
How did you figure it out? Use numbers, pictures, and/or words to show.

6 Just estimating, would you say that all the other penguins put together are as heavy as the Emperor? _____

7 Now add together all the penguin weights except the Emperor and see. Show your work below.

Home Connection 25 ★ Activity

NOTE TO FAMILIES

One of the things we know about measuring is that there's no substitute for experience. If we want children to learn about liquid measure, they need to handle the liquid and the measuring utensils themselves. This is so much easier to do at home than at school that we are truly grateful for your involvement. This Home Connection Activity asks you and your child to measure and compare the amounts of liquid held by 3 different containers—a drinking glass, a coffee mug, a plastic margarine or cottage cheese container, a jar—just about anything that holds 1 to 3 cups of liquid will do. You will be using a 3-ounce paper cup as your unit of measure and graphing the results. Have fun!

How Much Does It Hold?

With a family member's help, find 3 containers around your kitchen that will hold water—glasses, cups, yogurt or margarine containers, jars; there are all kinds of possibilities. Draw and label each of your 3 containers in one of the boxes below. Then circle the one you *think* will hold the most liquid.

Container 1	Container 2	Container 3

Now find out. Fill your paper cup to the brim and carefully pour it into the first container. Try not to spill a drop. Keep doing this until the container is full to the top. Then do the same with the other two containers. Record your results below:

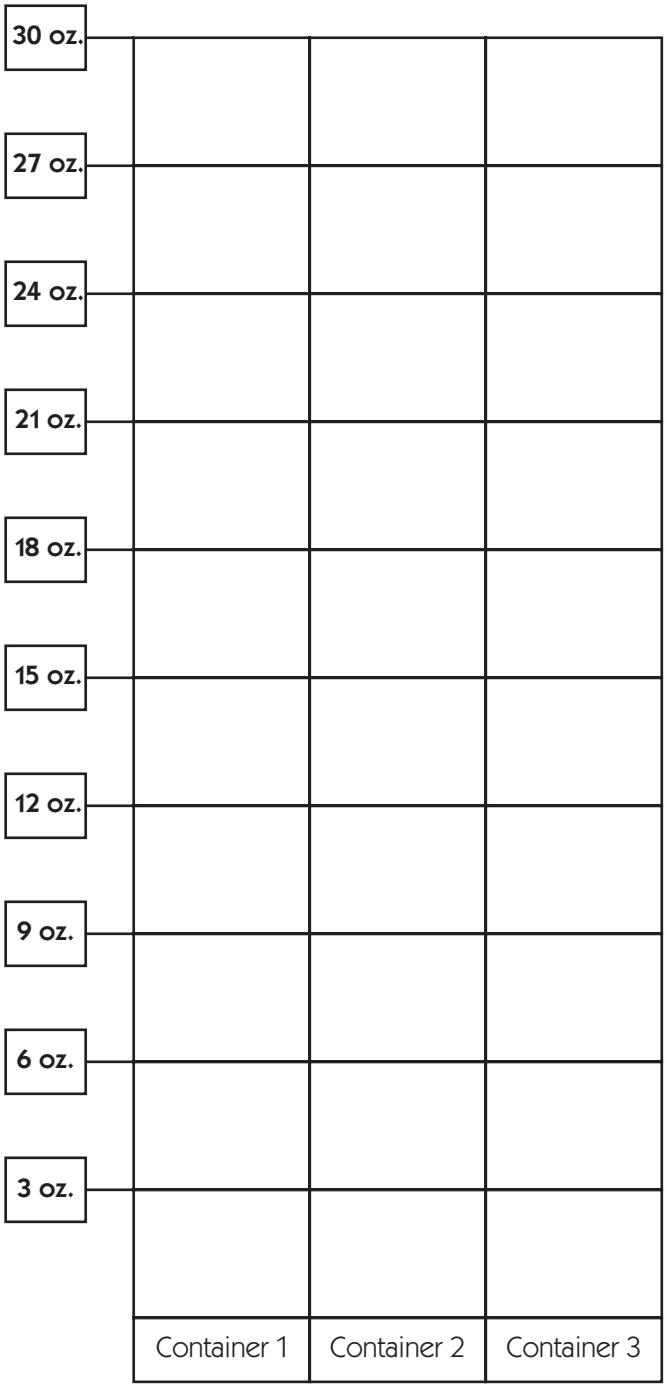
	How many paper cups full of water does it hold?	**How many ounces of water does it hold?** (Hint: your paper cup holds 3 ounces.)
A coffee cup	4 paper cups	12 ounces
Container 1		
Container 2		
Container 3		

NAME _____ RETURN BY _____

Home Connection 25 ★ Worksheet

How Much Does It Hold? Graphing the Results

Now that you've found out how many ounces of water each of your 3 containers holds, you can graph the results. Be careful, though, because on this graph, *each box stands for 3 ounces*, or 1 paper cupful. Then answer the questions beside the graph.



Which of your containers held the most?

_____

Which of your containers held the least?

_____

How many more ounces did the biggest container hold than the smallest container?

_____

How many ounces did the 3 of your containers hold in all?

_____

What would be a good title for this graph?

_____

Home Connection 26 ★ Activity

NOTE TO FAMILIES

Number Hunt is simple and fun, and helps children continue to find patterns on the hundreds grid. This is not a game that we've played at school, so you and your child will have to study the rules carefully together.

Number Hunt

In order to play this game, you have to cut out the cards on the next page. You also have to be able to read the instructions on the cards, but they're written in code. Here's how to crack the code: The number on the card tells you where to start on the hundreds grid. Each arrow means to move 1 box in the direction it's pointing. On the card to the right, for instance, you'd start on 25. Then you'd move over 1 box to the right, to land on 26. From there, you'd move 1 box down, to land on 36.

25 →↓

Game Rules

1 Cut out the cards on the next sheet. Mix them thoroughly and place them in a stack, face down. You'll find the gameboard on the back of this sheet.

2 Draw a card from the top of the pile, and follow the code directions to get to your number on the gameboard. If, for instance, you get a card that looks like this:

37 ↓↓

it means to start on the 37, move 1 box down to the 47, and then 1 more box down to the 57. That's your number for this round.

3 Have your partner draw a card and follow the directions to find his or her number on the gameboard. The partner who lands on the higher of the 2 numbers gets both cards.

37 ↓↓ 19 ↑

Oh no! I got 19 with an up arrow. That means I land on 9. 57 is way higher than 9, so you get both cards!

4 Keep playing back and forth until you have used up all the cards. The player with the most cards at the end of the game wins.

5 Mix the cards thoroughly, place them in a stack face down, and play the game again.

(Continued on back.)

Number Hunt gameboard

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Arrow Code

- → move 1 box to the right
- ← move 1 box to the left
- ↓ move 1 box down
- ↑ move 1 box up
- ↗ move 1 box up and 1 box to the right
- ↘ move 1 box down and 1 box to the right
- ↙ move 1 box down and 1 box to the left

Number Hunt cards

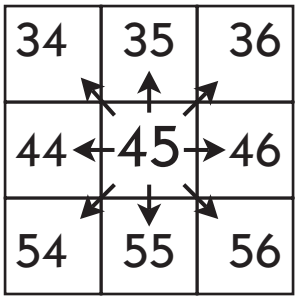
25 → ↑	46 ← ↓ ↓	8 ← ↓ →
53 → ↙ →	65 ↑ ↗	87 ↙ ←
7 → ↓ ↓	15 ↙ ↙ ↙	64 ← ↓ ↙
71 → →	95 ↑ ←	33 ↙ ↘
45 → ↑	29 ← ↑ ↑	58 ↘ ↓
66 ← ↑ →	18 ↙ ↙	24 ← ↓ ↙
27 ↓ ↓ ↓ ↓	36 ↑ → →	51 → ↓ ↓

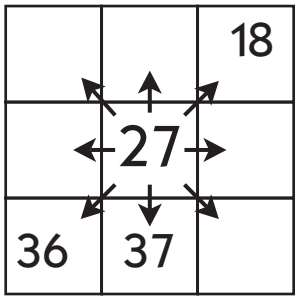
NAME _____ RETURN BY _____

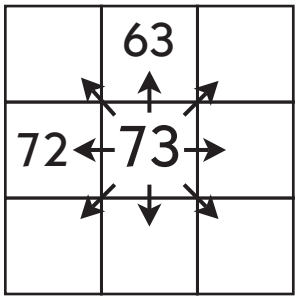
Home Connection 26 ★ Worksheet

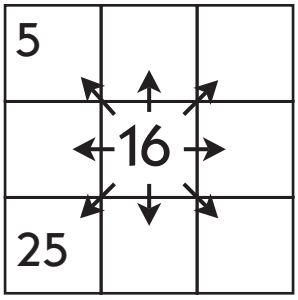
Exploring the Arrow Code—Can You Find the Patterns?

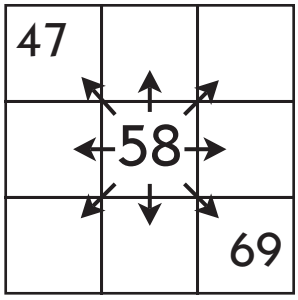
Let's think some more about the arrows in Number Hunt. Take a look at the hundreds grid you used for that game and use it to help fill in the missing numbers below. The first example is done for you.

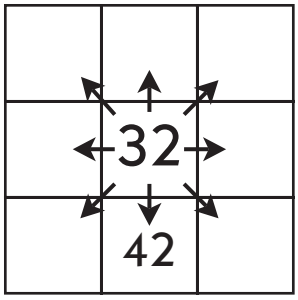












Which arrow makes you *add 1* to your starting number? _____

Which arrow makes you *add 10* to your starting number? _____

Which arrow makes you *add 11* to your starting number? _____

What happens every time you move *up one arrow* from your starting number?

_____

_____

_____

The Real Code (You fill in the rest.)

→ +1 ↓ + _____

← −1 ↑ − _____

Challenge

↘ + _____ ↙ + _____

↗ − _____ ↖ − _____