



Fun Math

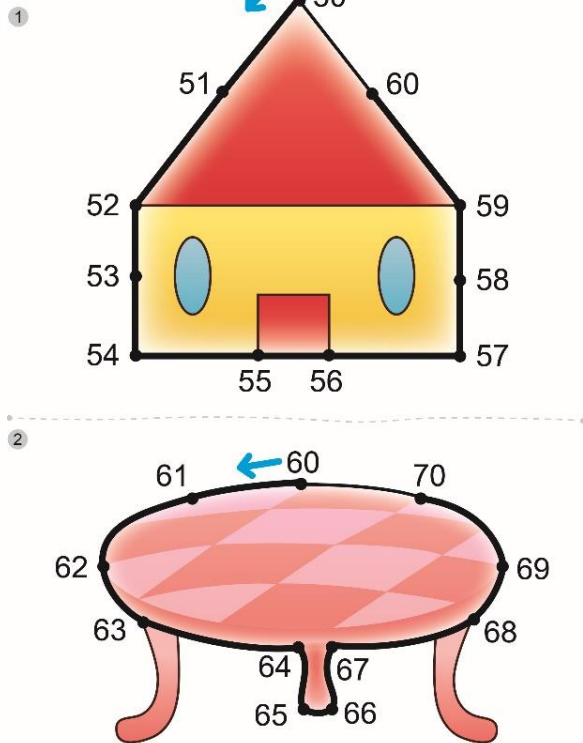
Teacher's Manual F





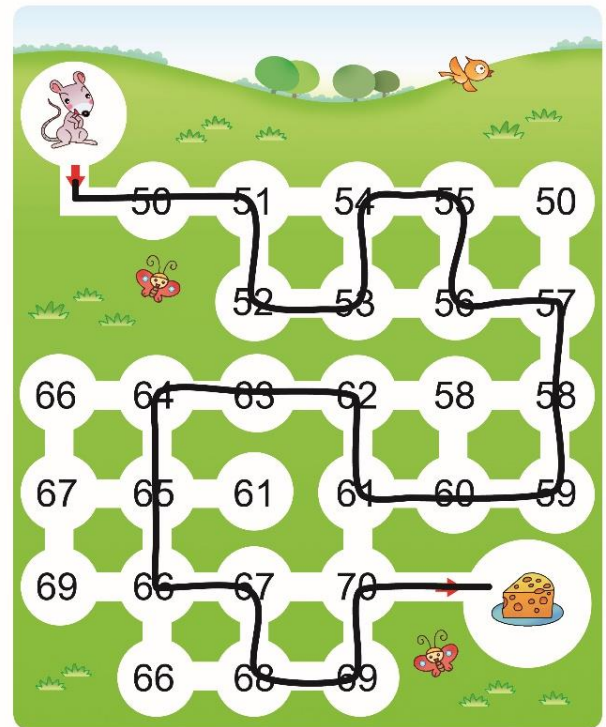
Please start from the smallest number, and connect the dots in numerical order.

โพนอองๆ ลากเส้นเรียงลำดับเลขจากน้อยไปหามาก



Please help the mice to get out of the maze by following the numbers from 50 to 70.

โพนอองๆ ลากเส้นเรียงลำดับเลขจาก 50 ถึง 70 เพือหาทางออกให้เจ้าหนูน้อย



Class		Teacher	
Unit	F1-1	Topics	Counting to 100

Manipulatives: None

Learning Activities

1. Draw 11 circles on the whiteboard. Write numbers 50 to 60 in the circles.
2. Place a girl figure card above 50, and then place a house card above 60. Tell students that this little girl is going home by following the numbers from 50 to 60. Move the figure card along the numbers while saying out each number.
3. Repeat the practice with numbers 60 to 70.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

Maze game:

1. Paste number cards 50 to 70 on foam mats. Create a maze with the foam mats.
2. Guide students to play a maze game inside the classroom.

Please fill in the missing numbers from 71 to 100.
 นับเลขจาก 71-100 น่องๆ ดูซิว่าในช่องว่างไหนที่ว่างควรจะเป็นเลขอะไร

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

3

Please fill in the missing numbers in numerical order.
 โหม้น่องๆ เติมตัวเลขในช่องว่าง ดูซิว่าควรจะเป็นเลขอะไร

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4

Class		Teacher	
Unit	F1-2	Topics	Counting to 100

Manipulatives: None

Learning Activities

1. Prepare some square cards, some circle cards, and a poster of a cabinet with numbers 71 to 100 in each drawer (same as Student Book page 3).
2. Put the poster on the whiteboard. Guide students to point at and say the numbers from 71 to 100.
3. Cover some numbers with the square cards, guide students to find out the covered numbers by counting on the numbers.
4. Have a student come up and cover some numbers with the circle cards. Guide students to find out the covered numbers by counting on the numbers.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

Number relay:

1. Prepare a big piece of paper. Write numbers in a random order from 1 to 100 on the paper.
2. Place the paper on the floor or on the whiteboard.
3. Ask students to find the numbers from 1 to 100. Every time a student spot a number, circle that number with a red marker.

F1-3 Combinations of Shapes and Colors

Please look at each gift box. Then draw lines to match the shapes to the colors.
ดูจากภาพของขวัญแต่ละรูปทรงมีสีอะไร ให้นักเรียนลากเส้นโยงให้ถูกต้อง

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เรียนรู้เรื่องรูปทรงและสี


Please look at each picture on the left. Then draw lines to match the shapes to the colors.
ดูจากภาพซ้ายมือ แต่ละรูปทรงมีสีอะไร ให้นักเรียนลากเส้นโยงให้ถูกต้อง

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6

Class		Teacher	
Unit	F1-3	Topics	Combinations of Shapes and Colors

Manipulatives: None

Learning Activities

1. Prepare some pictures of gift boxes in different shapes (can be different from Student Book page 5). There is a color shape on each of the boxes.
2. Assign a box, for example, a triangle gift box. Ask a student to find the picture card and tell the color of the gift box. Have the student tell more about the features of this gift box: the shape on the box, and the color of the shape.
3. Describe the color of a gift box, for example, a blue gift box. Ask students to find the picture card, and then tell the shape on the box, and the color of the shape.
4. Repeat the practice until students are familiar with the combinations of colors and shapes.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities
Gifts of love

1. Cut out some big shapes from white paper. For example, triangles, circles, squares. Each student gets a big white shape.
2. Provide students with colored paper. Each student cuts out small shapes from the colored paper, and then decorate his/her big white shape with the small color shapes.
3. Each student gives his/her art creation as a gift to a good friend.



Please count the gems in each group, and write down the numbers in the ○. Then count the total number of the gems, and circle the correct answer.

ให้นักเรียนนับว่าแต่ละช่องมีเพชรกี่เม็ด แล้วเขียนตัวเลขลงใน ○ จากนั้นให้นำจำนวนเพชรทั้งสองช่องมารวมกัน แล้ววงกลมคำตอบที่ถูกต้อง

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7

Please take out the beads to answer the questions below. Count the beads in each group, and write down the numbers in the ○. Then count the total number of the beads, and write down the correct number.

ให้นักเรียนนับว่าแต่ละช่องมีวงกลมกี่วง แล้วเขียนตัวเลขลงใน ○ จากนั้นให้นำจำนวนวงกลมทั้งสองช่องมารวมกัน แล้ววงกลมคำตอบที่ถูกต้อง

1

2

3

8

Class		Teacher	
Unit	F1-4	Topics	Composing Numbers up to 20

Manipulatives: Beads

Learning Activities

1. Draw two squares on the whiteboard, each square has a above it. Put some circle cards in both squares. (e.g., 8 in the left and 7 in the right.) Guide students to count the circles in the left square, write down the number in the . Guide students to count the circles in the right square, write down the number in the .
2. Draw a big square below the two squares, and a below it. Move all circle cards into the big square. Have students count the circle cards, and then write down the number in the .
3. Continue practicing with different numbers of circle cards until students are familiar with the composition of numbers.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Who has the biggest number:

1. Pair up students. Give a playing card to each student. (Remove the face cards in advanced.)
2. Each team adds up the two numbers on the cards, and then compare the number with other teams. Guide students to find out the team that has the biggest number.



There are many presents in each big box. Please divide the presents into two groups by counting the presents on the left, and then draw circles on the right to show the number of the second group of presents.

ให้น้องๆ นับขนมในกล่องตรงกลางว่ามีทั้งหมดกี่ชิ้น หากแบ่งขนมออกเป็นสองกล่อง กล่องซ้ายมีกี่ชิ้น และกล่องขวาคงจะมีกี่ชิ้น โหน้องๆ วาด ○ ลงในกล่องขวาให้ถูกต้อง

1

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9

Please divide the balls into two groups. Count the balls on the left, and draw circles on the right to show the number of the second group of balls. Then write down the numbers in the .

แบ่งลูกบอลออกเป็นสองกอง กองซ้ายมีกี่ลูก และกองขวาคงจะมีกี่ลูก โหน้องๆ วาด ○ ลงในช่องทางขวาให้ถูกต้อง พร้อมทั้งเขียนตัวเลขลงใน ทั้งซ้ายและขวา

1

2

10

Class		Teacher	
Unit	F1-5	Topics	Decomposing Numbers Within 20

Manipulatives: None

Learning Activities

1. Prepare 20 circle cards. Place the circle cards on the table. Take away 5 cards and ask students how many circle cards are left. Guide students to count the remaining circle cards.
2. Change the number of the cards that are on the table, and then take away some cards. For example, 18 cards are on the table, and 6 are taken away. Guide students to tell the number of the rest of cards.
3. Practice with different numbers of the cards until students are familiar with the decomposition of numbers.
4. Draw a big square on the whiteboard, and two small squares below the big square. Each small square has a next by it. Place some circle cards in the big square. Have a student come up to sperate the cards into two groups, and then move the two groups of cards into the two smaller squares respectively.
5. Have students count the circle cards in each square. Write down the number of the cards in each .
6. Repeat the practice until students are familiar with the decomposition of numbers.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

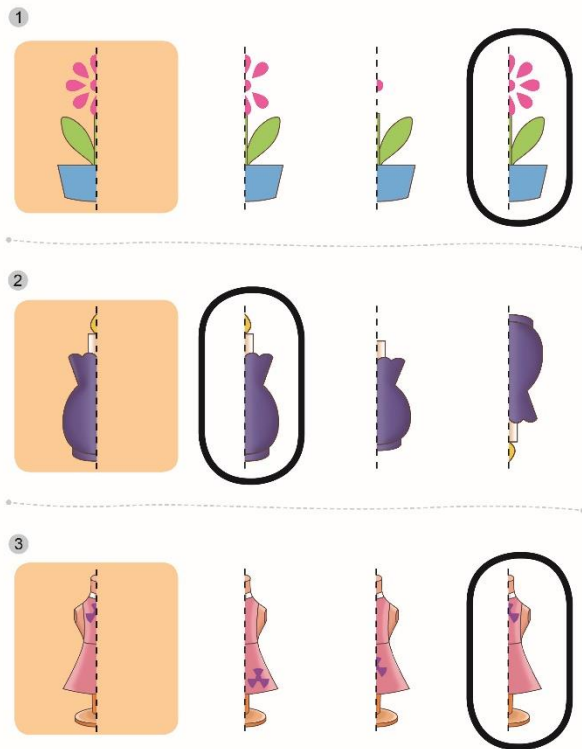
Shooting balls:

1. Make a big circle on the floor with a rope.
2. Prepare 20 balls. Have students stand at the assign position and throw the balls into the circle.
3. After everyone throws a ball, count the balls that are inside and outside of the circle.



Please take out the mirror and place it on the black dotted line. Look into the mirror, and circle the image shown in the mirror.

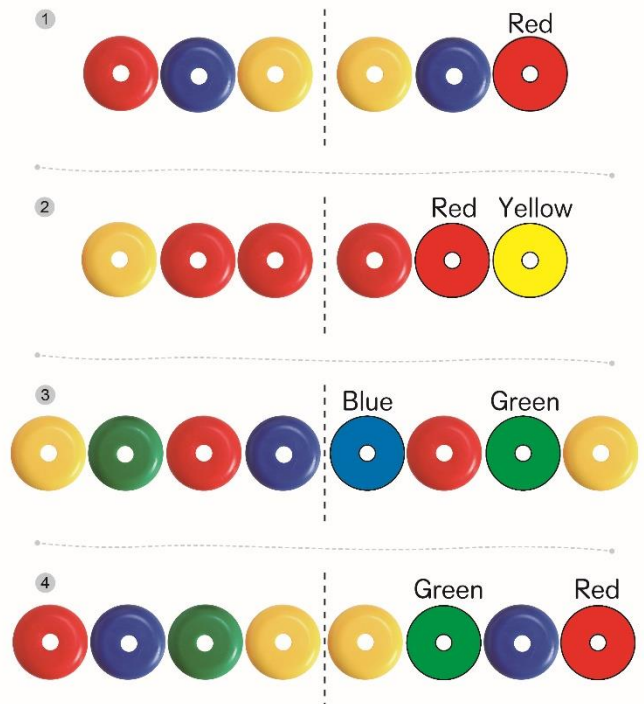
ให้นักเรียนนำกระจกจากกล่องอุปกรณ์วางตามเส้นประ ดูว่าอีกครึ่งหนึ่งควรจะเป็นรูปไหน แล้ววงกลมที่คำตอบ



11

Please place the mirror on the black dotted line. Look at the beads shown in the mirror, and then color the beads with correct colors.

ให้นักเรียนนำกระจกจากกล่องอุปกรณ์วางตามเส้นประ ดูว่าอีกฝั่งหนึ่งควรจะเป็นสีอะไร แล้วระบายสีลงในช่องว่างให้ถูกต้อง



12

Class		Teacher	
Unit	F1-6	Topics	Mirror Images

Manipulatives: Beads, mirror

Learning Activities

1. Draw a face on a piece of paper. Fold the paper into half to show only half of the face (or cover the other half of the face). Put the paper on the whiteboard.
2. Tell students that the other half of the face is gone. Ask students to observe the facial parts in the picture. For example, there is only one eye in the picture, but there should be two eyes. There is only one ear in the picture, but there should be two ears. Take out a mirror and place it next by the picture to make a complete face. Have students observe the image in the mirror, and then unfold the paper to show students the complete face.
3. Draw a vertical line on the whiteboard. Place two shape cards on the left of the line, and then place the mirror on the line. Have students observe the image in the mirror, and then find the correct shape cards to place on the right side of the line.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

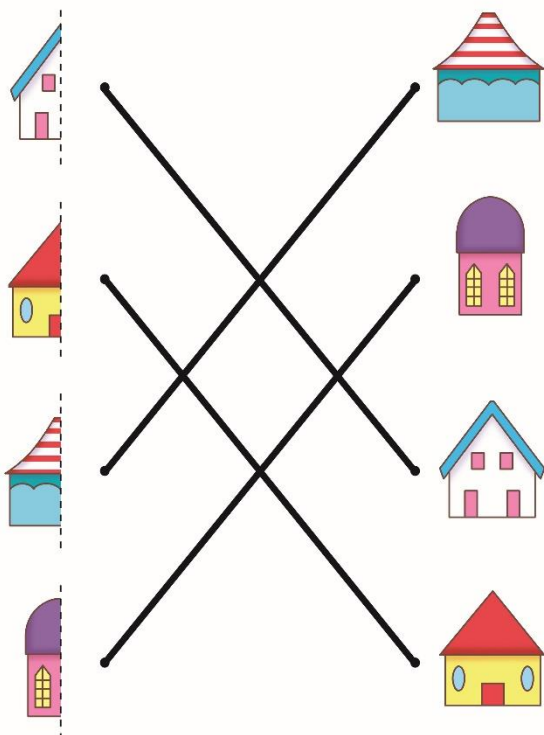
Mirror image painting:

1. Guide students to fold a piece of drawing paper into half. Have students paint with watercolor on the left half of the drawing paper.
2. Instruct student to fold the drawing paper while the paint is still wet. Students then will see the beautiful mirror images when they unfold the paper.



Please place the mirror on the black dotted line. Look at the houses in the mirror, and then draw lines to match the images.

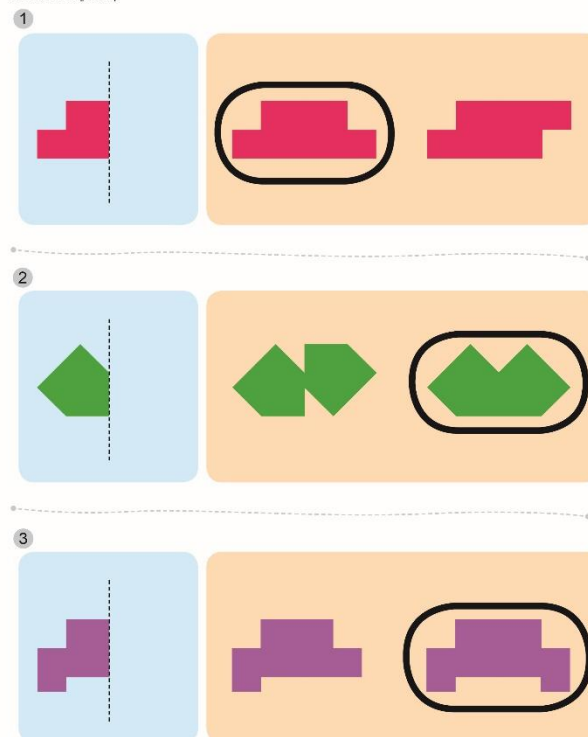
ให้นักเรียนนำกระดาษจากกล่องอุปกรณ์วางตามเส้นประ ดูว่าอีกครึ่งหนึ่งควรจะเป็นรูปไหน แล้วลากเส้นจับคู่ให้ถูกต้อง



13

Please place the mirror on the black dotted line, and then circle the correct image shown in the mirror.

ให้นักเรียนนำกระดาษจากกล่องอุปกรณ์วางตามเส้นประ ดูว่าอีกครึ่งหนึ่งควรจะเป็นรูปอะไร แล้ววงกลมที่รูปนั้นๆ

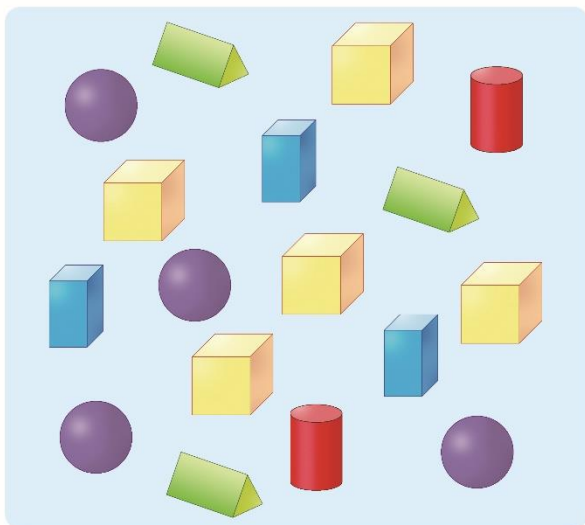


14

Class		Teacher	
Unit	F1-7	Topics	Mirror Images
Manipulatives: Mirror			
Learning Activities 1. Prepare some picture cards of symmetrical and asymmetrical cups, hats, and clothes. 2. Fold one of the cards, and then place a mirror on the crease. Have students tell if this picture is symmetrical or not. 3. Fold all the cards in half and place them on the floor. Guide students to find the symmetrical cards with their mirrors. Student Book Activities Guide students to complete the practice using the manipulatives and crayons.			
Extended Activities			
Paper cutting: 1. Have students fold colored paper into half. 2. Guide students to cut out some shapes from the paper. Unfold the paper to see the symmetrical patterns.			

Please count the number of each solid shape, and then write down the numbers in the .

น้องๆ นับดูว่าแต่ละรูปทรงมีจำนวนเท่าไร แล้วเขียนคำตอบลงในช่อง



4	3	2	5	3

15

Please circle the object that is similar to the solid shape on the left.

วงกลมสิ่งของที่มีลักษณะคล้ายรูปทรงตัวอย่าง



16

Class		Teacher	
Unit	F1-8	Topics	Solid Shapes

Manipulatives: None

Learning Activities

1. Photocopy and enlarge Student Book page 15. Put the poster on the whiteboard.
2. Show students a 3D cube. Tell them the special features of a cube. For example, a cube has straight lines, and each face is a square. Have students observe the cube, and then find this solid shape in the poster.
3. Repeat step 2 to find cuboids, triangular prisms, cylinders and spheres.
4. Ask students if they can find objects in the classroom that are similar to these solid shapes, or if they can think of some objects that they have seen in their daily life that are similar to these solid shapes.

Student Book Activities

Guide students to complete the practice using the crayons.

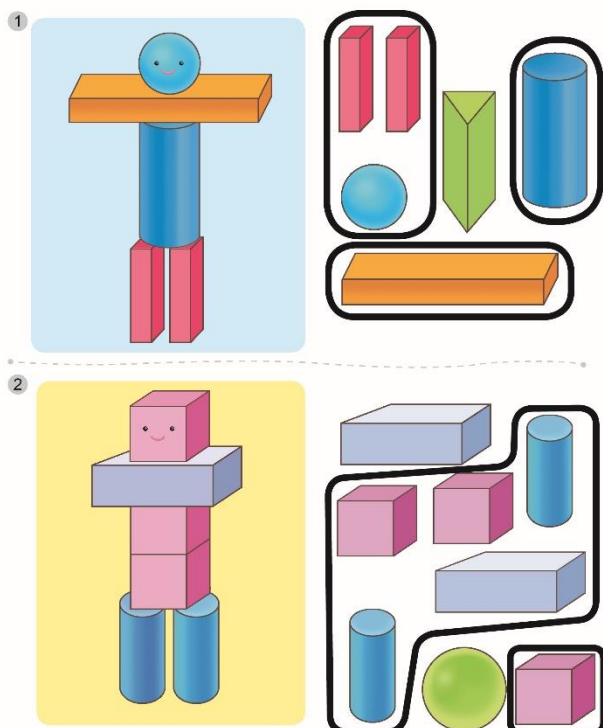
Extended Activities

Mystery box:

1. Prepare two sets of solid shapes. Put one set in a mystery box.
2. Show students one solid shape, and then have a student come up to draw a solid shape from the mystery box. The student has to feel the shapes in the box and find the same solid shape.

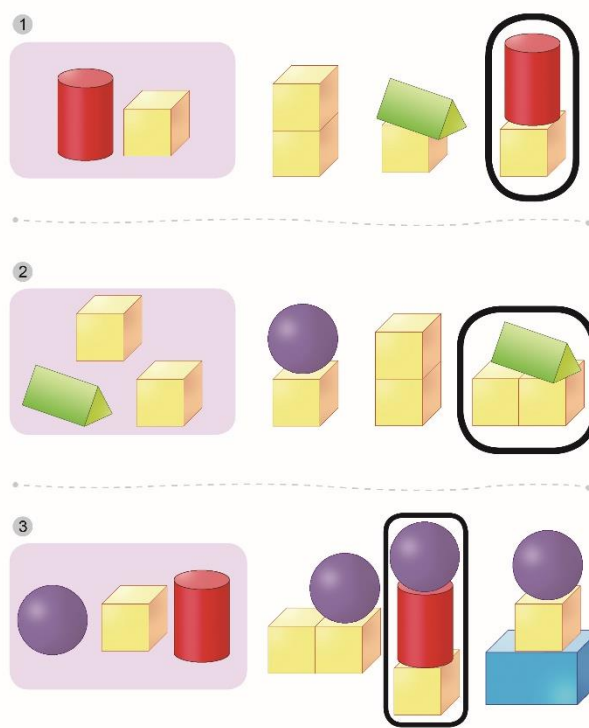


Please circle the blocks that make the figure on the left.
 ตัดตามรูปคนประกอบด้วยรูปทรงอะไรบ้าง วงกลมที่คำตอบ



17

What can we make with the solid shapes on the left? Please circle the correct answer.
 รูปภาพรูปทรงด้านซ้าย น้อยๆ สามารถประกอบเป็นรูปทรงใด วงกลมที่คำตอบ



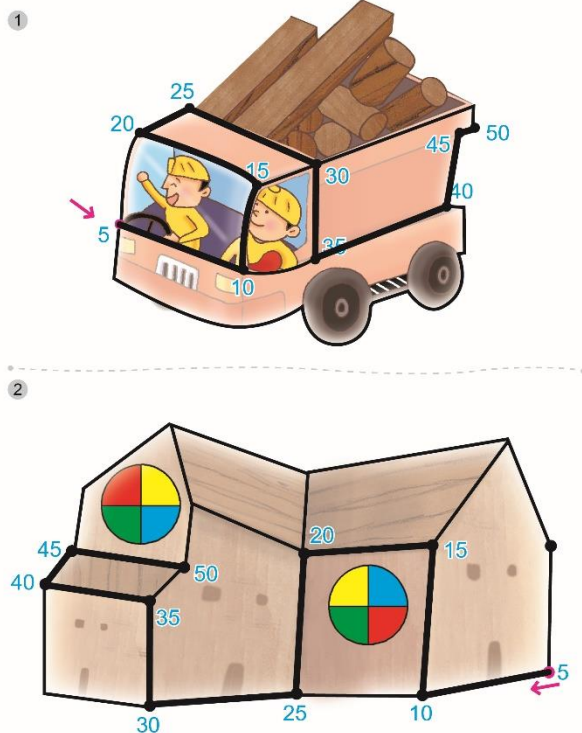
18

Class		Teacher	
Unit	F1-9	Topics	Composing Solid Shapes
Manipulatives: None			
Learning Activities 1. Draw some stacked objects on a poster. 2. Put the poster on the whiteboard. Ask students what do the stacks look like. 3. Have students tell the names of the solid shapes that are in picture 1 on Student Book page 17. Place these solid shapes on the table. 4. Have students observe the figure in picture 1, and try to make the same figure with the solid shapes. Student Book Activities Guide students to complete the practice using the crayons.			
Extended Activities			
Little architects: 1. Prepare some different solid shapes. Have two students each build a castle with the solid shapes. 2. After finished, ask these two students what solid shapes are used for each castle. 3. Have the rest of the students vote for their favorite castle. The student who built the castle with more votes is awarded the "Little architect".			



Please complete the truck and the house by connecting the dots in numerical order of 5, 10, 15 ... 50.

ลากเส้นประกอบรูปเริ่มจาก 5, 10, 15, ..., 50 โดยเพิ่มจำนวนทีละ 5



19

Please count and fill in the numbers according to the order of 5, 10, 15, ... 50.

ให้น้องๆ เติมตัวเลขลงในช่องว่างว่าควรเป็นเลขอะไร โดยเพิ่มจำนวนทีละ 5



20

Class		Teacher	
Unit	F1-10	Topics	Counting by Fives

Manipulatives: None

Learning Activities

1. Prepare a poster of numbers from 1 to 50. Put the poster on the whiteboard. Circle the multiples of 5 with a red marker. Guide students to observe the numbers on the poster.
2. Demonstrate how to say out the numbers: First, softly say 1, 2, 3, 4, and then say 5 with a stress. Continue to softly say 6, 7, 8, 9, and then say 10 with a stress. Guide students to discover the rhyme of every five numbers. Have students say out the numbers together to 50.
3. Point out the circled numbers. Guide students to count by 5's.
4. Cover some of the circled numbers. Have students count by 5's to find out the covered numbers. Repeat practicing until students are familiar with counting numbers by 5's.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

The number train:

1. Prepare some number cards that are the multiples of 5. Put the cards into a mystery bag. Have each student draw a number card.
2. Have students line up according to the numbers on the cards.
3. After all students are lined up, tell students that the number train is leaving soon. Ask students to say out the numbers they have. When all students are done, lead the number train to go around the classroom.

There are 5 snacks on each plate. Please count by 5, and draw lines to match the pictures to the correct numbers.

ในแต่ละจานมีขนมอยู่ 5 ชิ้น ให้นักเรียนใช้วิธีเพิ่มจำนวนทีละ 5 ในการนับ แล้วดูว่าขนมแต่ละอย่างมีกี่ชิ้น จงลากเส้นโยงคำตอบให้ถูกต้อง

30

25

35



There are 5 meatballs on each stick. Please count by 5, and write down the number in the .

แต่ละไม้มีลูกชิ้นอยู่ 5 ลูก ให้นักเรียนใช้วิธีเพิ่มจำนวนทีละ 5 ในการนับ แล้วรวมว่าแต่ละข้อมีลูกชิ้นทั้งหมดเท่าไร เขียนคำตอบลงในช่อง

40 meatballs ลูกชิ้น

60 meatballs ลูกชิ้น

55 meatballs ลูกชิ้น

Class		Teacher	
Unit	F1-11	Topics	Counting by Fives, Counting up to 100

Manipulatives: None

Learning Activities

1. Prepare some picture cards of 5 meatballs on a stick. Line up the cards on the whiteboard.
2. Have students count the meatballs on the first card. Guide students to observe all the other cards and see if each stick has the same number of meatballs on it. Have students discover that all sticks have 5 meatballs.
3. Guide student to count the meatballs by 5's. After counting all cards, ask student which is faster? Counting one by one, or by 5's.
4. Repeat practicing with different numbers of meatballs until students are familiar with counting by 5's.

Student Book Activities

Guide students to complete the practice using the crayons.

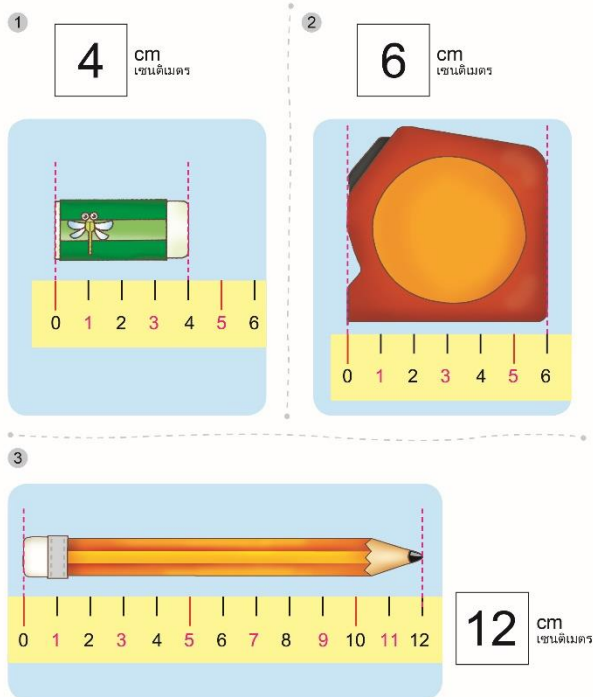
Extended Activities

The lucky one:

1. Place some beads on the tables.
2. Pair up students to play rock-paper-scissors. The winner can take 5 beads from the table.
3. Students continue playing until all beads are taken.
4. Have students line up their beads by 5's and count. The student with the most beads is the winner.

F1-12 Introduction to Rulers, Measuring with a Ruler

Please measure the objects with a ruler, and write down the length in the .
 ให้นำไม้บรรทัดวัดขนาดของสิ่งของ แล้วเขียนขนาดที่วัดได้ลงในช่อง

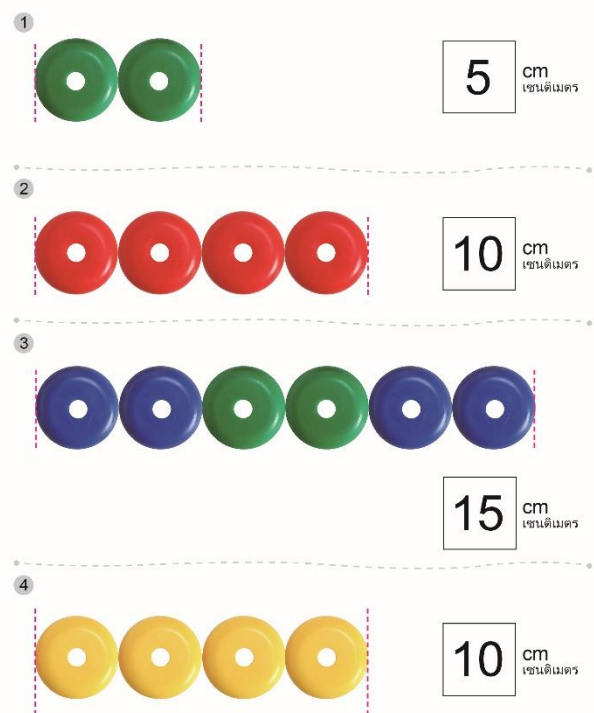


23

รู้จักการใช้ไม้บรรทัด



Please measure the beads with a ruler, and write down the length in the .
 ให้นำไม้บรรทัดวัดขนาดความยาวของวงกลมที่เรียงต่อกัน แล้วเขียนขนาดที่วัดได้ลงในช่อง



24

Class		Teacher	
Unit	F1-12	Topics	Introduction to Rulers, Measuring with a Ruler

Manipulatives: Ruler, beads

Learning Activities

1. Prepare some strips of ribbon in different lengths.
2. Take out a big ruler to teach students how to measure:
 - (1) Line up an object so that the zero mark is aligned with the left edge of the object.
 - (2) See how far it goes on a ruler to the right edge of the object.
 - (3) The number close to the right edge is the length of the object.
3. Show students a strip of ribbon and ask students how to measure it. Have students point out the edges of the ribbon. Demonstrate measuring the ribbon.
4. Have students take out their own rulers from the Math Box. All students practice measuring until they are familiar with measuring with a ruler.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Measuring ourselves:

1. Give each student a piece of paper. Ask students to trace their hands and feet with a marker.
2. Guide students to measure their hands and feet with a ruler.
3. After finished, color and decorate the drawing of the hands and the feet.



Please make the circle on the left with the quarter circle blocks. Then rotate the circle, and draw a ○ in the correct □.

นำอุปกรณ์จากกล่องมาประกอบเป็นรูปให้เหมือนรูปตัวอย่าง แล้วลองหมุนตามรูป ให้น้องๆ สังเกตดูว่าจะได้รูปไหน จากในวงกลมลงใน □ ของคำตอบ

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3

Please make the figure on the left with the quarter circle blocks. Then rotate the figure, and color the ◁ with correct colors.

นำอุปกรณ์จากกล่องมาประกอบเป็นรูปให้เหมือนรูปตัวอย่าง แล้วลองหมุนตามภาพ พร้อมระบายสีลงในช่องว่าง

1

2

3

Class		Teacher	
Unit	F1-13	Topics	Rotation

Manipulatives: Quarter circle blocks

Learning Activities

1. Draw a house with many circle windows. Each window has 4 quarters in different colors.
2. Put the house poster on the whiteboard. Point at one window, and guide students to tell the colors of the window starting from the upper left quarter.
3. Have students take out their quarter circle blocks to make the same color combination as this window.
4. Guide students to rotate their circle until it's the same as the window.
5. Continue practicing with the other windows of the house.

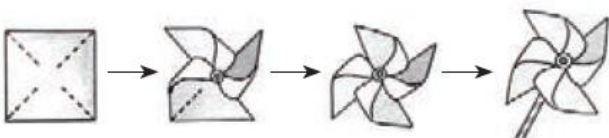
Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

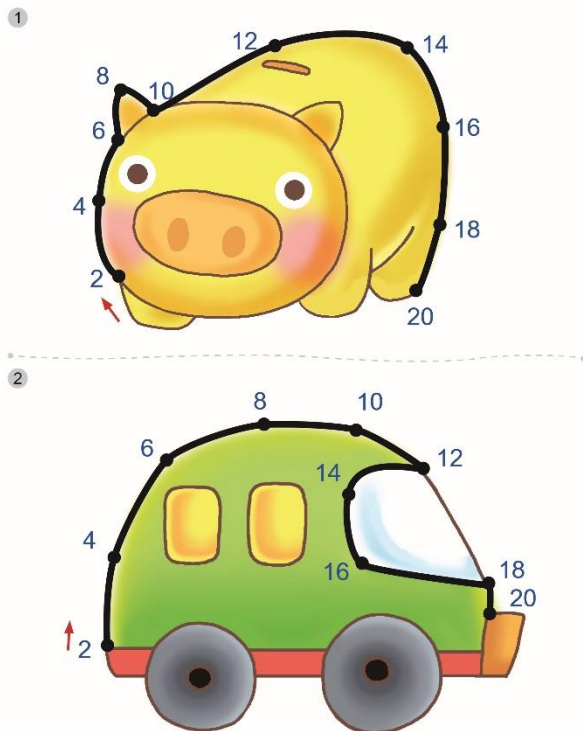
My windmill:

1. Give each student a drawing paper, some markers and a stick.
2. Guide students to make a paper windmill following the instructions below.



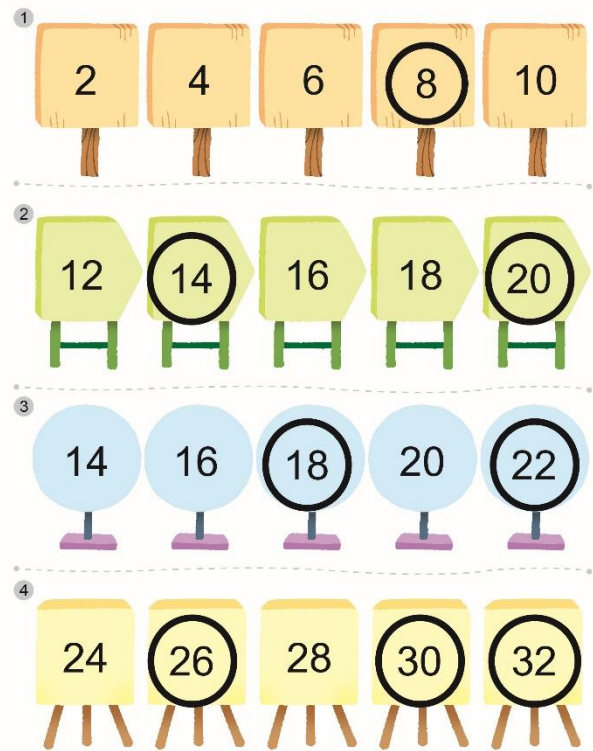


Please connect the dots in numerical order of 2, 4, 6..., and tell what the pictures are.
เริ่มลากเส้นจาก 2 → 4 → 6 → แล้วดูซิว่าจะได้รูปอะไร



27

Please count and fill in the numbers according to the order of 2, 4, 6
ให้นับจำนวนเลขเพิ่มขึ้นทีละสอง แล้วเติมตัวเลขที่ถูกต้องลงในช่องสี่เหลี่ยม



28

Class		Teacher	
Unit	F1-14	Topics	Counting by Twos

Manipulatives: None

Learning Activities

1. Write numbers from 1 to 30 on the whiteboard. Guide students to count from 1 to 30.
2. Circle the multiples of 2. Guide students to say the circled numbers.
3. Erase the odd numbers 1, 3, 5, 7, 9..., and then cover some of the circled numbers. Have students count by 2's to find out the covered numbers.
4. Repeat practicing until students are familiar with counting numbers by 2's.

Student Book Activities

Guide students to complete the practice using the crayons.

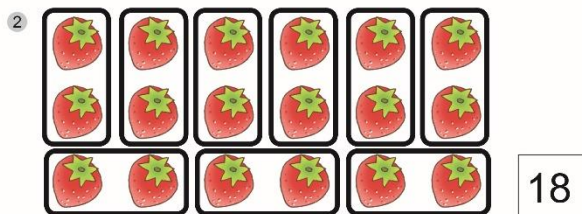
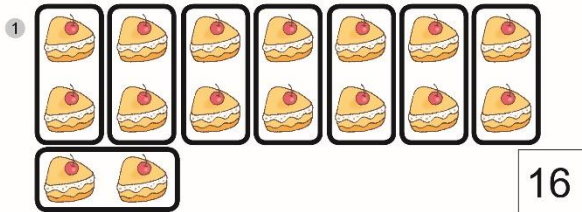
Extended Activities

Finding numbers:

1. Write numbers that are multiples of 2 (within 30) in a random order on a big piece of paper.
2. Place the paper on the floor.
3. Prepare a red marker. Have students take turns to come up and circle a multiple of 2 starting from the smallest number.

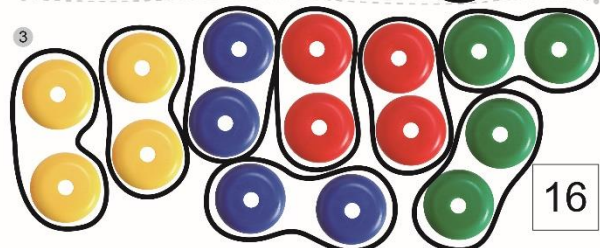
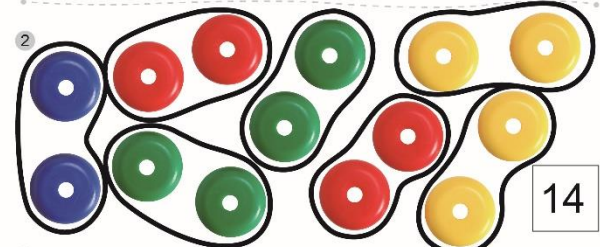
Please circle the objects in pairs of two. Count and write down the numbers of the pairs in the .

ให้นักเรียนวงกลมภาพของสิ่งของทีละ 2 ชิ้น และให้บันทึกจำนวนวงกลมทั้งหมดในแต่ละข้อ จากนั้นเขียนคำตอบที่ถูกต้องลงในช่องว่างให้เรียบร้อย



Please circle the beads in pairs of two. Count the pairs, and write down the numbers in the .

ให้นักเรียนวงกลมภาพของลูกอมทีละ 2 ชิ้น และให้บันทึกจำนวนวงกลมทั้งหมดในแต่ละข้อ จากนั้นเขียนคำตอบที่ถูกต้องลงในช่องว่างให้เรียบร้อย



Class		Teacher	
Unit	F1-15	Topics	Counting by Two, Counting up to 100

Manipulatives: Beads

Learning Activities

1. Draw 10 strawberries on the whiteboard.
2. Have students take turns to come up and circle two strawberries. After all strawberries are circled, guide students to count the strawberries by 2's.
3. Draw 20 beads on the whiteboard.
4. Repeat step 2 to practice counting by 2's.
5. Continue practicing with different numbers of objects. Students can also practice with their own beads.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

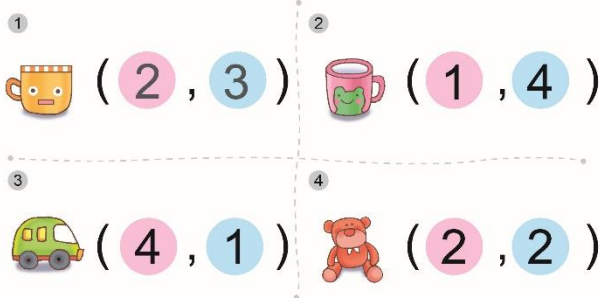
Extended Activities

Litter bakers:

1. Prepare some circle cards for students to design their own doughnuts.
2. Each student can draw one or two doughnuts. After done, students take turns to show and tell about their doughnuts.
3. Place all the doughnuts on the table. Guide students to count the doughnuts by 2's.

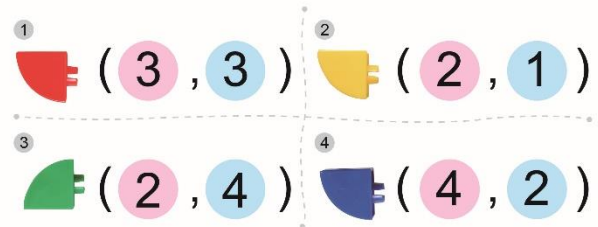
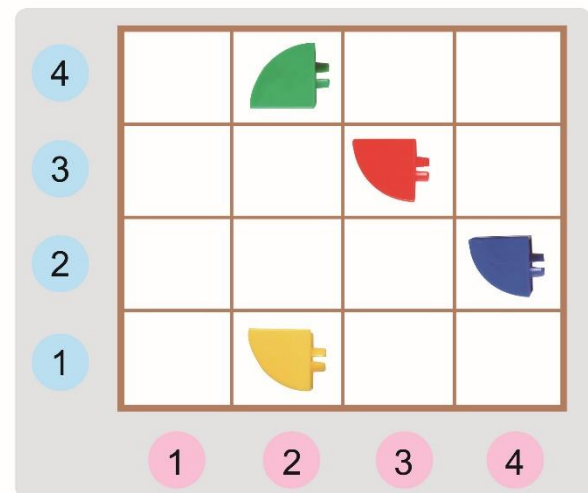


Please find the locations of the objects, and write down their placement.
 ง่ายๆ หาตัวสิ่งของในรูปวางไว้ตำแหน่งไหน เขียนคำตอบให้ถูกต้อง



Please place the quarter circle blocks on the grid below. Then write down the placement of each block.

นำตัวต่อจากกล่องอุปกรณ์แล้ววางตามดูง่ายๆ ดูซิว่าของในรูปวางไว้ตำแหน่งไหน เขียนคำตอบให้ถูกต้อง



Class		Teacher	
Unit	F1-16	Topics	4x4 Grid

Manipulatives: Quarter circle blocks

Learning Activities

1. Draw a 4 by 4 grid on the whiteboard. Explain the meaning of the two numbers in the brackets: the first number shows the distance along, and the second number shows the distance up.
2. Place a flag card in one of the 16 boxes. Guide students to find the two numbers that tells the position of the flag.
3. Place more flag cards in the grid. Have students practice telling the positions of the flags.
4. Have students take out their Math Box and observe the 4 by 4 grid on the cover.
5. Remove all the flags cards on the whiteboard. Draw a quarter circle in one of the boxes, and then ask students to place a quarter circle blocks at the identical position on their own grids.
6. Guide students to tell the position of the block. Continue practicing with different positions of the grid.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Little mailman:

1. Set up a grid with cartons or cabinets.
2. Prepare some envelopes. Each has a pair of number on it indicating a position of the grid. Have students take turns to be a mailman delivering the letters to the correct boxes.



Please circle the correct objects according to their locations.

ให้มองหาสิ่งของที่อยู่ในช่องว่างของแต่ละแถว และตอบคำถามด้านล่างว่าเป็นตำแหน่งของสิ่งของชิ้นไหน แล้ววงกลมคำตอบให้ถูกต้อง



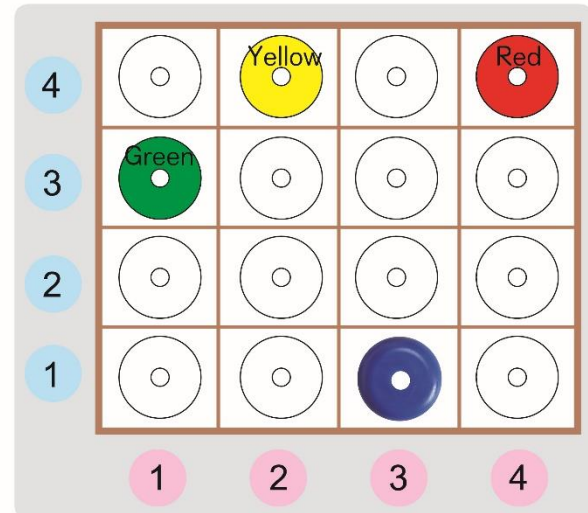
- 1 (1 , 3)   
- 2 (3 , 4)   
- 3 (4 , 2)   

33

Please place the beads on the grid according to the instructions below. Then color the beads with correct colors.

ให้มองหาสีของลูกบอลจากกล่องอุปกรณ์มาวางตามตำแหน่งของลูกบอลแต่ละสี แล้วระบายสีให้ถูกต้อง

- 1  (3 , 1)  (2 , 4)
- 3  (1 , 3)  (4 , 4)



34

Class		Teacher	
Unit	F1-17	Topics	4x4 Grid

Manipulatives: Beads

Learning Activities

1. Prepare a 4 by 4 grid poster.
2. Put the poster on the whiteboard. Draw a bead in a certain box of the grid. For example, draw a yellow bead at (2,4).
3. Have students take out their Math Box grid and place a yellow bead at the identical position.
4. Repeat step 2 and 3 with other colors of beads and positions until students are familiar with the positions of the grid.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Sticky ball:

1. Draw a grid on the whiteboard.
2. Have students take turns to throw a sticky ball to the grid and tell the position of the ball.



Please draw lines to match the questions to the days according to the calendar below.
ดูจากปฏิทินแล้ว ให้นักเรียนลากเส้นโยงคำถามที่ถูกต้องว่าแต่ละสัปดาห์เป็นวันอะไร



The day with a is คือ

The day with a is คือ

The day with a is คือ

The day with a is คือ

Monday วันจันทร์

Wednesday วันพุธ

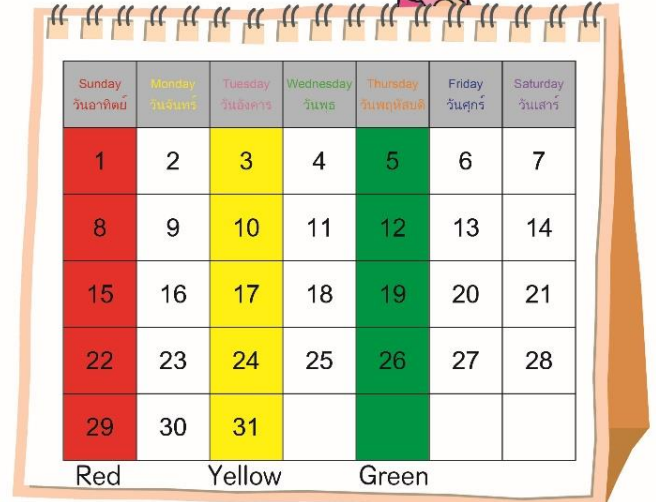
Friday วันศุกร์

Saturday วันเสาร์

1

Please color the calendar according to the instructions below.
ให้นักเรียนนำสีระบายลงปฏิทินตามวันที่กำหนดไว้

- Color Tuesdays with ระบายสีวันอังคารด้วย
- Color Thursdays with ระบายสีวันพฤหัสบดีด้วย
- Color Sundays with ระบายสีวันอาทิตย์ด้วย



2

Class		Teacher	
Unit	F2-1	Topics	Days of the Week

Manipulatives: Calendar card

Learning Activities

- Put the calendar poster on the whiteboard, guide students to observe the calendar. Tell students, "There are seven days in a week. A week starts on a Sunday, and then Monday, and so on." Point to the days when introducing them to the students.
- Teach a chant to help students remember the sequence of days of the week.
Sunday, Monday, clap, clap, clap.
Tuesday, Wednesday, snap, snap, snap.
Thursday hop. Friday stop.
Saturday spin around like a top.
There are seven days in a week.
There are seven days in a week.
- Have students observe the calendar. Tell students, "I'm going to hop on Thursdays. Please help me to find the Thursdays in the calendar, and then say out the dates of Thursdays."
- Repeat the practice with other days. (e.g., spin on Saturdays.) Make sure students are familiar with the days of the week.
- Instruct students to use the calendar card.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

My favorite day of the week:

Show students the class schedule. Have students take turns to share their favorite day of the week and explain why. For example, one likes Tuesday best because the PE class is on Tuesday.



Please circle the correct answers according to the calendar below.

ดูจากปฏิทิน จงหาคำตอบที่ถูกต้อง

June เดือนมิถุนายน						
Sunday วันอาทิตย์	Monday วันจันทร์	Tuesday วันอังคาร	Wednesday วันพุธ	Thursday วันพฤหัสบดี	Friday วันศุกร์	Saturday วันเสาร์
	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				

- 

June 4 is
วันที่ 4 เดือนมิถุนายน คือ

Thursday วันพฤหัสบดี Saturday วันเสาร์
- 

June 16 is
วันที่ 16 เดือนมิถุนายน คือ

Sunday วันอาทิตย์ Tuesday วันอังคาร
- 

June 21 is
วันที่ 21 เดือนมิถุนายน คือ

Sunday วันอาทิตย์ Monday วันจันทร์

3

Please follow the instruction below and color the calendar.

ดูวัน เดือนและสีที่กำหนดไว้ แล้วระบายสีลงปฏิทินให้ถูกต้อง

- Feb 8:  วันที่ 8 เดือนกุมภาพันธ์
- Sep 3:  วันที่ 3 เดือนกันยายน
- Jul 15:  วันที่ 15 เดือนกรกฎาคม
- Dec 25:  วันที่ 25 เดือนธันวาคม

February เดือนกุมภาพันธ์						
Sunday วันอาทิตย์	Monday วันจันทร์	Tuesday วันอังคาร	Wednesday วันพุธ	Thursday วันพฤหัสบดี	Friday วันศุกร์	Saturday วันเสาร์
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

July เดือนกรกฎาคม						
Sunday วันอาทิตย์	Monday วันจันทร์	Tuesday วันอังคาร	Wednesday วันพุธ	Thursday วันพฤหัสบดี	Friday วันศุกร์	Saturday วันเสาร์
			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	

September เดือนกันยายน						
Sunday วันอาทิตย์	Monday วันจันทร์	Tuesday วันอังคาร	Wednesday วันพุธ	Thursday วันพฤหัสบดี	Friday วันศุกร์	Saturday วันเสาร์
		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			

December เดือนธันวาคม						
Sunday วันอาทิตย์	Monday วันจันทร์	Tuesday วันอังคาร	Wednesday วันพุธ	Thursday วันพฤหัสบดี	Friday วันศุกร์	Saturday วันเสาร์
		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		

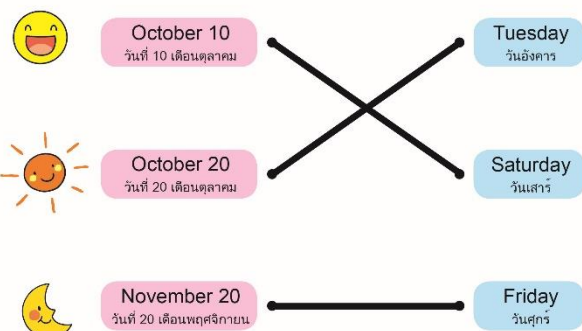
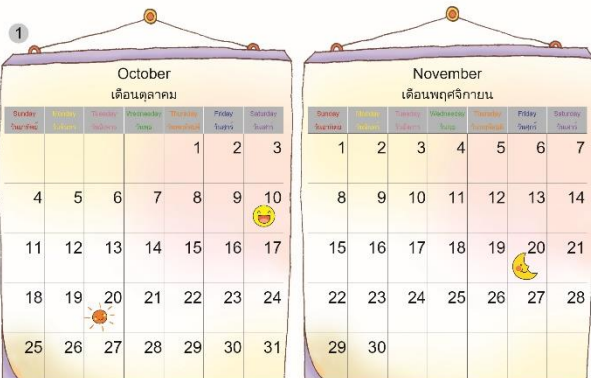
4

Class		Teacher	
Unit	F2-2	Topics	Monthly Calendar
Manipulatives: Calendar card			
Learning Activities - Flip calendar through the months. Introduce the 12 months to students. - Say the name of a month (e.g., June), and ask one student to flip the calendar to that month. - Say one date (e.g., June the third), Have a student come up and circle this date on the calendar with a marker. The whole class then say the day of this date. - Guide students to use their calendar cards. Have students practice finding days and dates with the calendar cards.			
Student Book Activities Guide students to complete the practice using the manipulatives and crayons.			
Extended Activities			
Making a calendar - Prepare dome drawing paper and markers. - Each student picks his/her favorite month, and then draw a calendar of that month.			

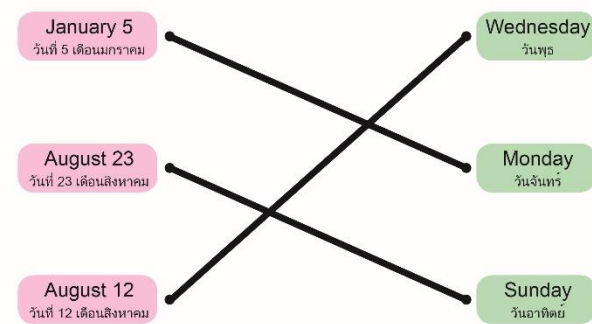
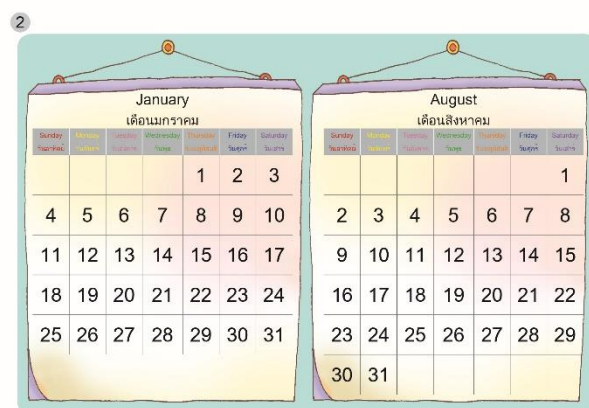


Please draw lines to match the dates to the days.

ดูจากปฏิทินรายเดือน แล้วลากเส้นโยงคำตอบที่ถูกต้อง



5



6

Class		Teacher	
Unit	F2-3	Topics	Month, Week, and Day

Manipulatives: Calendar card

Learning Activities

- Put a calendar on the wall or on the whiteboard. Say one date (e.g., October eleventh). Have a student come up and circle this date on the calendar with a marker. Ask the student what day it is.
- Show students how to adjust the calendar card to October eleventh. All students follow the instruction and practice with their own calendar card.
- After all students find October eleventh, guide students to practice with other dates.
- Continue practicing until all students can find dates and days on the calendar cards.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

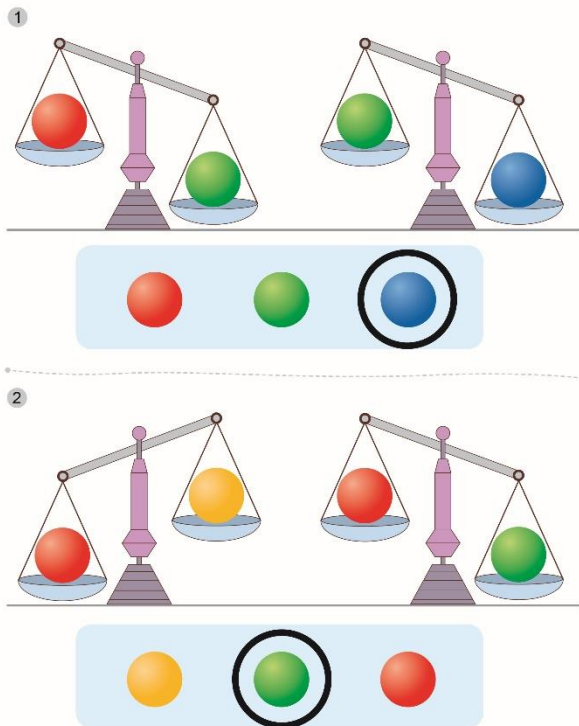
Extended Activities

Happy birthday:

- Guide the class to find everyone's birthday on the calendar.
- Discuss with students about holding a monthly birthday party. Ask students how they would like to celebrate their birthdays.



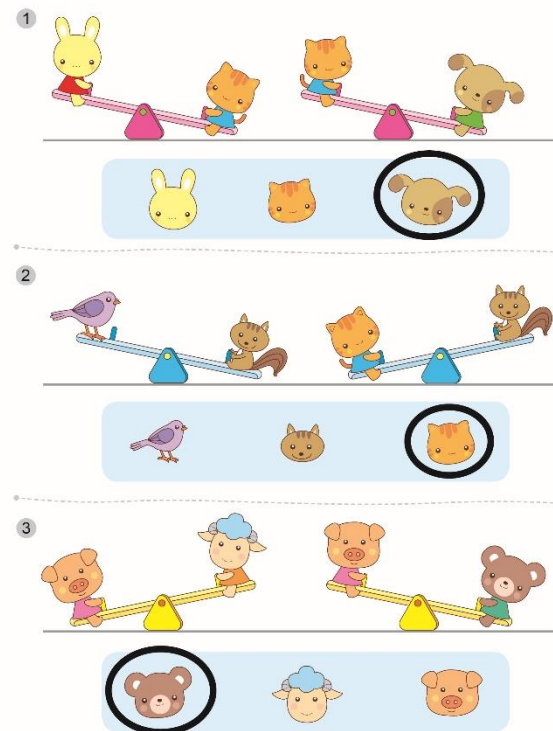
Please compare the weight of the balls. Then circle the heaviest ball.
เปรียบเทียบลูกบอลแต่ละลูก จงวงกลมลูกบอลที่มีน้ำหนักมากที่สุด



7

The animals are playing on the seesaws. Please take out the transitive property cards to compare their weight, and then circle the heaviest animal.

สัตว์น่ารักแต่ละตัวกำลังเล่นไม่กระตือรือร้น น่ารักจากกล่องมาเปรียบเทียบดู แล้วว่าใครหนักที่สุด วงกลมคำตอบที่ถูกต้อง



8

Class		Teacher	
Unit	F2-4	Topics	Transitive Property

Manipulatives: Transitive property cards

Learning Activities

1. Draw two unbalanced scales on the whiteboard. Show students two animal cards (dog, cat). Tell students that the dog is heavier than the cat. Have one student come up to place these two cards on one of the scales. (Remind students their own experiences playing on a seesaw. The heavier object goes down while the lighter object goes up.)
2. Show students two animal cards (cat, rabbit). Tell students that the cat is heavier than the rabbit. Have one student come up to place these two cards on the other scale.
3. Ask students which of the three animals is the heaviest? Which is the lightest? Guide students to look back at the scales. The dog is heavier than the cat, and the cat is heavier than the rabbit. Therefore, the dog is the heaviest.
4. Have students look for the lightest animal. Continue practice with other cards.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Playing on the seesaw

1. Take the class to a seesaw nearby.
2. Randomly pick 3 students. Have the class guess the lightest student.
3. Check the answer by having 2 students get on the seesaw. The lighter one remains his/her place.
4. Continue comparing the lighter student with the third student.



Please compare the weight of the balls. Then write down 1, 2, 3 from the heaviest to the lightest in the .

เปรียบเทียบลูกบอลแต่ละลูก เรียงลำดับจากหนักไปหาเบา โดยเขียนเลข 1, 2, 3 ตามลำดับ

1

2

3

3
2
1

2
1
3

3
1
2

9

The people are comparing their height. Please take out the transitive property cards to compare their height. Then write down 1, 2, 3 from the tallest to the shortest in the .

ทุกคนกำลังเปรียบเทียบความสูงกันอยู่ นำการ์ดจากกล่องมาเปรียบเทียบดู เรียงลำดับจากสูงไปหาเตี้ย โดยใช้เลข 1, 2, 3 ตามลำดับ

1

2

1
3
2

3
1
2

10

Class		Teacher	
Unit	F2-5	Topics	Transitive Property

Manipulatives: Transitive property cards

Learning Activities

1. Prepare some figure cards.
2. Put two figure cards on the table (a father, a son). Ask students how to tell who's taller? Remind students that to compare the length of two objects, first we have to align the objects.
3. Align the two cards to a line. Have students compare the heights of the two figures. Remove the father card, show students the daughter card. Ask students, "Which is taller? The son or the daughter?" Guide students to compare their heights using the same method.
4. Tell students that the father is taller than the son, and the son is taller than the daughter. Ask students who is the tallest among the three. Align the three cards, and check if their answer is correct.
5. Continue practicing with other figure cards until students are familiar with the concept of transitive property.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Tall or short

1. Divide students into groups of three.
2. Each group finds out the tallest and the shortest students by comparing their heights in pairs.



Please circle the flowers into pairs of two. An even number of things can be circled in pairs. An odd number of things cannot be circled in pairs. Please draw a ✓ in the ○ for an even number, and an X for an odd number.

ให้น้องๆ วงกลมดอกไม้ทีละ 2 ดอกไว้ด้วยกัน ให้ใส่ ✓ ใน ○ ที่เป็นเลขคู่ และใส่ X ใน ○ ที่เป็นเลขคี่

1		☐
2		☒
3		☐
4		☒
5		☐
6		☒
7		☐
8		☒
9		☐
10		☒

1 Even numbers: 2, 4, **6**, 8, 10
เลขคู่

2 Odd numbers: 1, **3**, 5, 7, 9
เลขคี่

11

Please circle the animals into groups of two. Check the ☐ of the even numbers.

ให้น้องๆ วงกลมสัตว์แต่ละชนิดทีละ 2 ตัวไว้ด้วยกัน และให้ใส่ ✓ ใน ☐ ที่เป็นเลขคู่

☒

☒

☒

☐

12

Class		Teacher	
Unit	F2-6	Topics	Odd or Even

Manipulatives: Beads

Learning Activities

- Write numbers 1 to 20 (or use number cards, number poster) on the whiteboard. Guide students to count from 1 to 20, and then circle the multiples of 2. Guide students to count by 2's.
- Erase the numbers. Write down 1 to 10, and then draw corresponding number of flowers next by each number.
- Have students come up to circle the flowers by 2's. Ask students what are the numbers that have no flowers left.
- Explain to students that the numbers with no flowers left are even numbers, while the others are odd numbers. Ask students to find the even numbers and the odd numbers.
- Place some beads on the table. Have students line up the beads two by two. Ask students if the total number of the beads is an even number or an odd number. Guide students to count the beads by 2's.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

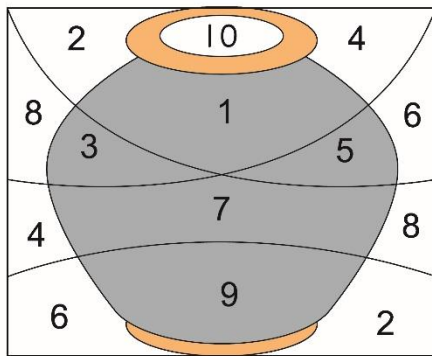
Counting beans:

- Prepare two boxes. One is empty, and the other one has some kidney beans in it.
- Have students take turns to move two beans to the other box. The whole class counts the beans by 2's when two beans are moved each time.
- Ask students if the total number of the beans is an odd or even number.

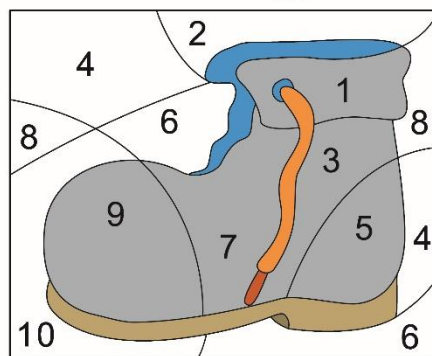


Please color the odd numbers. Then find out what the objects are.
ให้เด็กๆ ระบายสีลงในช่องที่เป็นเลขคี่ แล้วดูว่าเป็นรูปอะไร

1



2

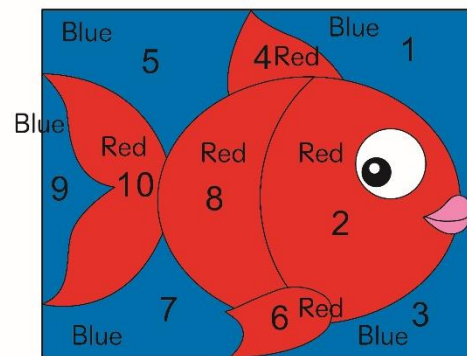


13

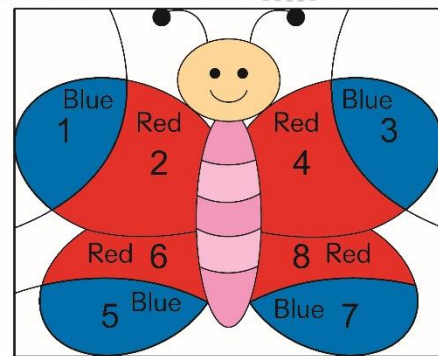
Please color the odd numbers blue, and the even numbers red. Then find out what the objects are.

ให้เด็กๆ ระบายสีน้ำเงินลงในช่องเลขคี่ และระบายสีแดงลงในช่องเลขคู่ แล้วดูว่าเป็นรูปอะไร

1



2



14

Class		Teacher	
Unit	F2-7	Topics	Odd or Even

Manipulatives: None

Learning Activities

1. Line up number cards 1 to 20 on the whiteboard. Guide students to count the numbers from 1 to 20.
2. Ask students to find the even numbers. Have students say out loud all the even numbers.
3. Ask students to find the odd numbers. Have students say out loud all the odd numbers.
4. Give the number cards to students. Have students follow the instructions, for example, whoever gets an odd number stands up, and whoever gets an even number hops twice.
5. Repeat the practice with different activities until students are familiar with the concept of odd and even numbers.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

Flip and find

1. Put the number cards face-down on the whiteboard.
2. Divide students into two teams. One team looks for odd numbers, the other team looks for even numbers.
3. Each team sends one student to come flip a number card. If that student finds the cards that matches the team, he/she can take down that card.
4. The first team finds all the odd/even number cards wins the game.



There are three teams of different colors. Each team had two tries. Please record the game results by drawing a ○ for each ball.

ด้านล่างเป็นตารางการแข่งขันของทีม 3 ทีม ให้น้องๆ จดบันทึกโดย ○ ลงในช่องว่างว่าแต่ละทีมทำคะแนนไว้เท่าไร

1st try ครั้งที่ 1			
2nd try ครั้งที่ 2			

1st try ครั้งที่ 1	○○○	○○○	○○○ ○○
2nd try ครั้งที่ 2	○○	○○○	○○○

15

Todd's family played a water balloon game at the night market. Please record the game results by drawing a ○ for each balloon.

พ่อแม่ลูกไปเล่นเกมสไลเดอร์น้ำโป่ง ที่หน้าจตุจักร จดบันทึกโดย ○ ลงในช่องว่างว่าแต่ละคนได้คะแนนเท่าไร

1st try ครั้งที่ 1			
2nd try ครั้งที่ 2			

1st try ครั้งที่ 1	○○○ ○	○○○ ○○○ ○	○○○ ○○
2nd try ครั้งที่ 2	○○○ ○○	○○○ ○	○○

16

Class		Teacher	
Unit	F2-8	Topics	Keeping a Record

Manipulatives: None

Learning Activities

1. Draw a scoreboard on the whiteboard (same as Student Book page 15). Fill the scoreboard with numbers.
2. Have students observe the scoreboard, and then explain to them how to read it. For example, the first row is the score each team gets at the first round. The second row is the scores of the second round.
3. Have student find out the final score of each team. Which team has the highest score, and which has the lowest?
4. Draw a new scoreboard on the whiteboard. Divide students into three teams. Each team takes turns to throw a ball through a hula hoop.
5. Keep the scores on the scoreboard.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

What's popular?

1. Draw a score board on the whiteboard.
2. Have students vote for their favorite cartoon, food, or other items. Rank the items according to the votes.



Please look at the game results, and write down the points for each team. Then circle the team with the highest score, and the team with the lowest score.

ดูผลคะแนนของแต่ละทีม ให้น้องๆ จดบันทึกลงในตารางด้านล่าง แล้ววงกลมคะแนนที่สูงที่สุดและต่ำที่สุด

1st try ครั้งที่ 1			
2nd try ครั้งที่ 2			
sum รวม	7	5	9

- 1 Highest scores:
- 2 Lowest scores:

17

Please take out the beads, and line them up according to the picture below. Draw a ○ for each bead, and write down the number of the total beads of each color. Then circle the color that has the most beads, and the color that has the least beads.

ให้นำวงกลมจากกล่องอุปกรณ์และวางเรียงลำดับตามภาพตัวอย่างทั้งสองแถว แล้วให้วาดวงกลมลงในช่องสี่เหลี่ยมแต่ละแถว จากนั้นนับรวมกันเป็นเท่าไร แล้ววงกลมค่าตอบให้ถูกต้องที่จำนวนมากที่สุดและน้อยที่สุดของคำถามด้านล่าง

sum รวม	3	3	4	2

- 1 Most:
- 2 Least:

18

Class		Teacher	
Unit	F2-9	Topics	Keeping a Record
Manipulatives: Beads			
Learning Activities 1. Prepare beads of 3 different colors. 2. Divide students into 3 groups, and then give each group some different color beads. 3. Draw a scoreboard on the whiteboard. One column for each color of the beads. 4. Each team counts its red beads, and then comes up to draw circles in the corresponding boxes. 5. Repeat step 4 with yellow, and blue bead. 6. Have each team count the circles of each color, and then write down the numbers in corresponding boxes. 7. Continue practicing with different amount of color beads, until students are able to keep and read records correctly.			
Student Book Activities Guide students to complete the practice using the manipulatives and crayons.			
Extended Activities			
My pretty necklace 1. Give each student a string of yarn and some beads. Guide students to make a necklace with the beads. 2. After finished, have students count and record the numbers of each color of the beads on the whiteboard.			



Please take out the beads and do the math by lining them up as shown below. Then circle the correct addition sentences.

ให้นำเม็ดลูกอมออกมาจากกล่องอุปกรณ์มาเรียงตามจำนวนในภาพตัวอย่างแต่ละภาพ และวงกลมคำตอบที่ถูกต้อง

1 $11 + 9 = 19$

2 $12 + 5 = 17$

3 $14 + 6 = 20$

4 $13 + 4 = 16$

19

Please take out the beads and use them for counting. Draw ○ to record the numbers of the beads in each group. Then write down the correct number.

ให้นำเม็ดลูกอมจากกล่องอุปกรณ์มาช่วยในการนับ แล้วนำสองภาพรวมกันว่าได้วงกลมกี่วง จากนั้นวาดวงกลมลงในช่องว่างเพื่อช่วยจดบันทึก แล้วเขียนคำตอบให้ถูกต้อง

1

$8 + 7 = 15$

2

$8 + 9 = 17$

3

$10 + 9 = 19$

20

Class		Teacher	
Unit	F2-10	Topics	Adding up to 20

Manipulatives: Beads

Learning Activities

1. Prepare some bead cards. Each card shows one bead.
2. Draw three boxes on the whiteboard (same as Student Book page 20). Write down " $12+6=\square$ ". Have one student put 12 bead cards in the first box, and then another student put 6 bead cards in the second box.
3. Ask one student to come up and move all the bead cards into the big box on the right, and then count and write down the number in the $\square$.
4. Repeat the practice with different numbers of bead cards. Help students to be familiar with the addition equations.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Rolling the dice

1. Pair up students. Give each team a piece of paper that has a chart with 11 boxes.
2. Have students fill the boxes with numbers from 2 to 12.
3. Students take turns to roll the two dice. Add up the dice, and then cross out that number.
4. The first team crossing out all the numbers wins.



What is the total number of the objects in both groups? Please take out the beads and count. Then complete the addition sentence.

สิ่งของสองสักรวมกันแล้วมีจำนวนเท่าไร นำวงกลมจากกล่องอุปกรณ์มาช่วยในการนับ แล้วเขียนตัวเลขที่ถูกต้อง

1  

$$\boxed{8} + \boxed{6} = \boxed{14}$$

2  

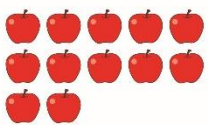
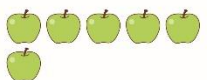
$$\boxed{9} + \boxed{10} = \boxed{19}$$

3  

$$\boxed{7} + \boxed{9} = \boxed{16}$$

What is the total number of the fruit in both groups? Please take out the beads and count. Then complete the addition sentence.

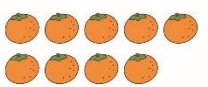
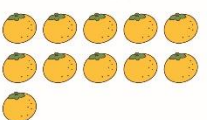
ผลไม้สองสักรวมกันแล้วมีจำนวนเท่าไร นำวงกลมจากกล่องอุปกรณ์มาช่วยในการนับ แล้วเขียนตัวเลขที่ถูกต้อง

1  

$$\boxed{12} + \boxed{6} = \boxed{18}$$

2  

$$\boxed{8} + \boxed{9} = \boxed{17}$$

3  

$$\boxed{9} + \boxed{11} = \boxed{20}$$

Class		Teacher	
Unit	F2-11	Topics	Adding up to 20

Manipulatives: Beads

Learning Activities

1. Prepare some bead cards. Each card shows one bead.
2. Draw two smaller boxes and one bigger box on the whiteboard. Each box has a above it. Tell students, "A girl has 5 cookies, and a boy has 13 cookies. How many cookies do they have?"
3. Have one student place 5 bead cards in the first box and write 5 in the . Have another student put 13 bead cards in the second box and write 13 in the .
4. Ask one student to come up and move all the bead cards into the bigger box, and then count and write down the number in the .
5. Repeat the practice with different numbers of bead cards. Help students to be familiar with the addition equations.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Finger game

1. Pair up students.
2. Each student says a number smaller than 20, and then both students show their hands with a number of fingers up. Count all fingers. The student who guesses the number right is the winner.



Todd and Owl are going to the fair. Please try each route by following the directions of the arrows. Then color the ☐ of the correct route.

ดูจากภาพตารางด้านล่าง ใช้ลูกศรที่กำหนดให้แล้วดูว่า พวกเขาจะต้องใช้เส้นทางไหนเพื่อจะไปซื้อของ แล้วระบายสีลงใน ☐ ของคำตอบที่ถูกต้อง

1 ☐  → ↓ ↓ 

2 ☐  ↓ → ↓ → 

3 ☐  ↓ → → 



Please try each route by following the directions of the arrows. Then color the ☐ of the correct route.

ดูจากภาพตารางด้านล่าง และดูว่าลูกศรของภาพไหนพาไปยังจุดหมายที่ถูกต้อง แล้วระบายสีลงใน ☐ ของคำตอบที่ถูกต้อง

1 ☐  ↑ ↑ ← ↓ 

2 ☐  ↓ ↓ ← ← 

3 ☐  → ↓ ↓ → 



Class		Teacher	
Unit	F2-12	Topics	Direction Questions

Manipulatives: None

Learning Activities

1. Photocopy or draw the map of Student Book page 23.
2. Introduce directions and arrows to students.
3. Have students observe and tell the places on the map. For example, the Ferris wheel, the swimming pool.
4. Ask students how to get to the swimming pool from the Ferris wheel. Guide students to find these two places, and then trace the route with finger.
5. Place the arrow cards on the route.
6. Continue practicing with routes between different places until students are familiar with directions.

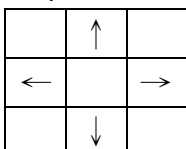
Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

Dancing mat:

1. Prepare 9 EVA foam mats. Put them together into a 3 by 3 square. Paste arrows on the mat.

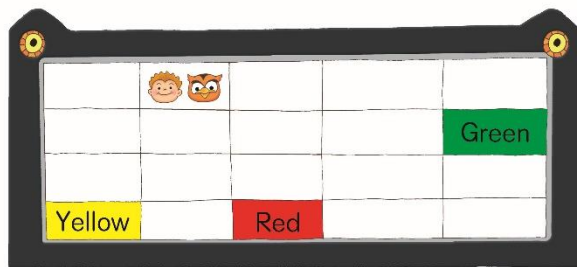
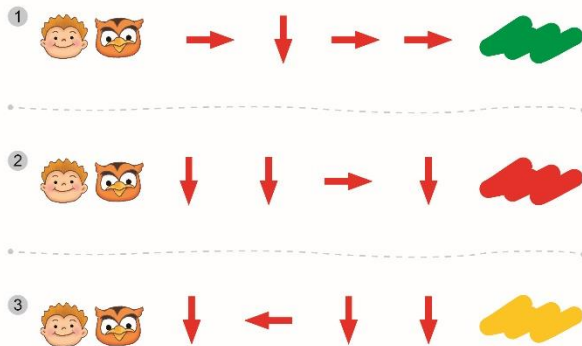


2. Have one student come up and dance on the mat according to the arrow cards that the teacher shows.



Where will Todd and Owl get to if they follow the directions of the arrows? Please color the spots with the assigned colors.

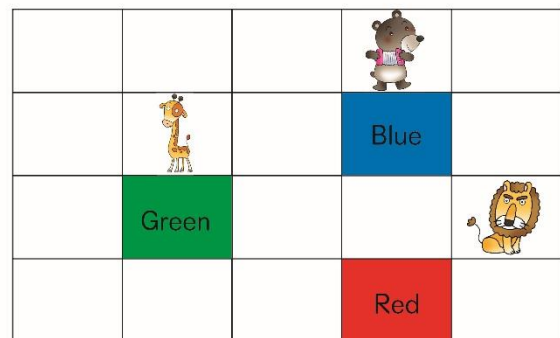
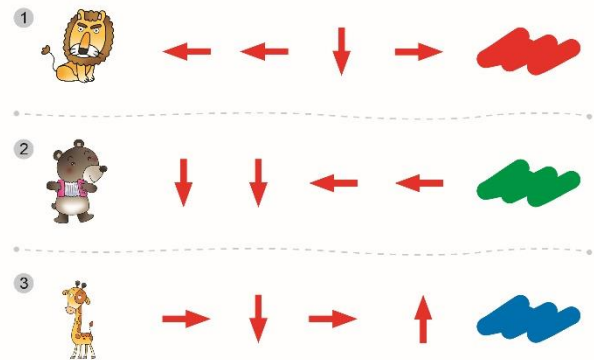
ไหน่องๆ ทอดและฮูกจะลงคนเดินตามเส้นทางลูกศร แล้วระบายสีที่กำหนดไว้ลงในช่องจดหมายปลายทาง



25

Where will the animals get to if they follow the directions of the arrows? Please color the spots with the assigned colors.

ไหน่องๆ ดจากภาพ แล้วหาแต่ละคนเดินตามเส้นทางลูกศร จากนั้นระบายสีที่กำหนดไว้ลงในช่องจดหมายปลายทาง



26

Class		Teacher	
Unit	F2-13	Topics	Direction Questions

Manipulatives: None

Learning Activities

1. Prepare some flag cards and arrow cards.
2. Draw a 4 by 4 grid on the whiteboard. Draw a boy in of the boxes, and then place some flag cards in different boxes.
3. Tell students, "The boy is going up first ↑ , and then move left ← , and then goes up ↑ again." Ask students which color flag will this boy get.
4. Have a student come up to place the arrow cards according to the directions.
5. Continue practicing with different routes until students are familiar with directions.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

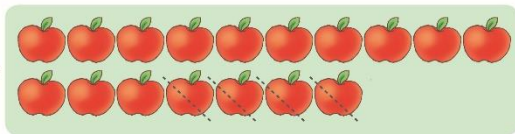
Hop like a rabbit:

1. Have students practice hopping like a rabbit. Guide student to hop in 4 different directions: left, right, forwards, and backwards.
2. Students complete the challenge by correctly hopping to the given directions.



Everyone ate some fruit. Please subtract the fruit that is crossed out, and then complete the subtraction sentences.

พวกเขาต่างกินผลไม้กัน ผลไม้ที่ถูกขีดฆ่าคือผลไม้ที่กินไปแล้ว ให้นักเรียนเขียนประโยคสัญลักษณ์ให้ถูกต้อง



$$17 - 4 = 13$$



$$18 - 6 = 12$$

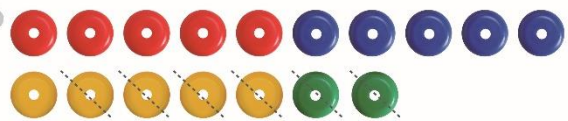


$$20 - 4 = 16$$

How many beads are left after some are crossed out? Please count them with the beads, and complete the subtraction sentences.

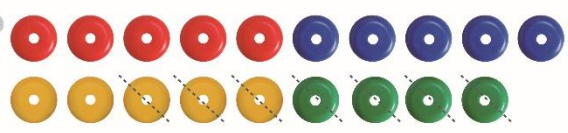
หลังจากขีดฆ่าไปแล้ว ยังมีวงกลมเหลืออยู่กี่วง ให้นักเรียนนำวงกลมจากกล่องอุปกรณ์มาช่วยในการนับ และเขียนคำตอบลงในช่องว่างให้ถูกต้อง

1



$$17 - 6 = 11$$

2



$$19 - 7 = 12$$

3

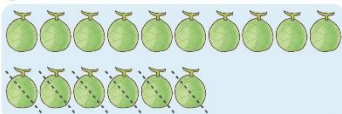


$$20 - 2 = 18$$

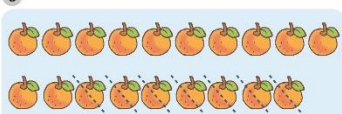
Class		Teacher	
Unit	F2-14	Topics	Subtracting Within 20
Manipulatives: Beads			
Learning Activities			
1. Prepare some bead cards.			
2. Tell students, "The boy has 17 apples in his bag. He wants to give 4 to his sister. How many apples will be left in the bag?"			
3. Write down "17-4=□" on the whiteboard, and then draw a big circle.			
4. Have students place 17 bead cards in the circle, and then take away 4 bead cards. Guide students to count and tell how many are left. Write down the number in the □.			
5. Continue practicing with different numbers of bead cards until students are familiar with the subtraction equations.			
Student Book Activities			
Guide students to complete the practice using the manipulatives and crayons.			
Extended Activities			
Guessing game:			
1. Place some beads in a small box (less than 20). Guide students to count the beads.			
2. Have a student grab some beads and count the beads in his hand. Guide the class to guess how many beads are left in the box.			



How much fruit is left after some was sold? Please complete the subtraction sentences.
ผลไม้บางชนิดได้ถูกขายไปแล้ว ให้นักเรียนนับผลไม้ที่ยังเหลืออยู่ว่ามีกี่ลูก แล้วเขียนคำตอบลงในช่องว่างให้ถูกต้อง

1  $16 - 6 = \boxed{10}$

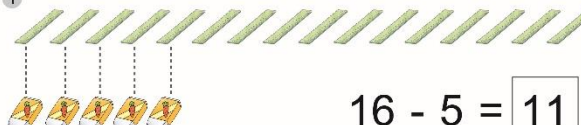
2  $18 - \boxed{3} = \boxed{15}$

3  $19 - \boxed{7} = \boxed{12}$

4  $20 - \boxed{10} = \boxed{10}$

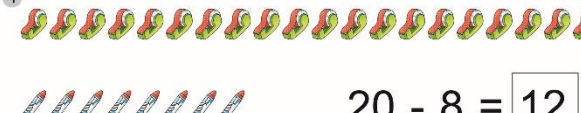
Which has more, and how many? Please draw lines between the objects, and find the answer.

อุปกรณ์การเรียนชนิดใดมีมากกว่ากันและมากกว่าเท่าไร ใช้วิธีการลากเส้นเปรียบเทียบ แล้วเขียนคำตอบลงในช่องว่างให้ถูกต้อง

1  $16 - 5 = \boxed{11}$

2  $19 - 6 = \boxed{13}$

3  $17 - 4 = \boxed{13}$

4  $20 - 8 = \boxed{12}$

Class		Teacher	
Unit	F2-15	Topics	Subtracting Within 20

Manipulatives: None

Learning Activities

1. Prepare bead cards of two different colors (red, blue).
2. Line up 12 red bead cards in a row on the whiteboard, and then line up 7 blue bead cards in a row below the red one.
3. Guide students to align the two rows. Draw a line from the first red bead to the first blue bead, and then the second red bead to the second blue bead, and so on.
4. Explain to students, "The red beads that are not connected to the blue beads are the difference". Have students count these unconnected red beads, and then write down the equation "12-7=5" on the whiteboard.
5. Continue practicing with different numbers of bead cards until students are familiar with the subtraction equations.

Student Book Activities

Guide students to complete the practice using the crayons.

Extended Activities

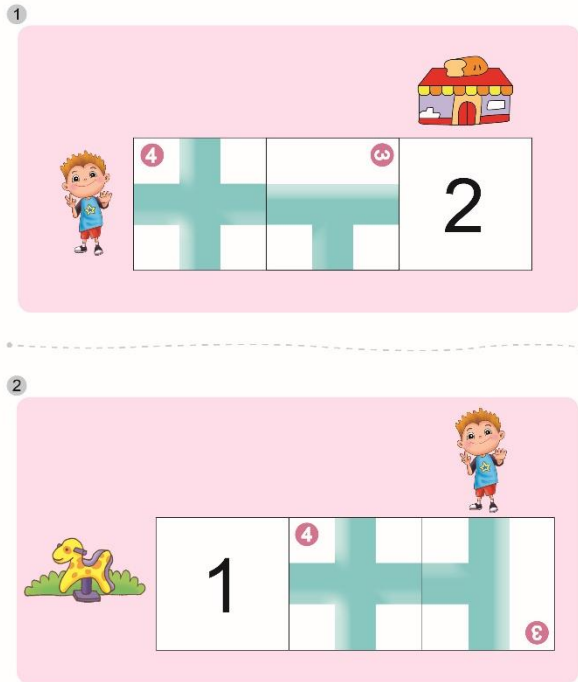
More or less?

1. Prepare a bag of marbles. Have two students each grab a handful of marbles.
2. Students count their marbles, and tell who has less, who has more, and the difference.
3. Encourage students to write down the equation.



Please take out the path cards, and help Todd find his way to each place. Then write down the number of the path card in the □.

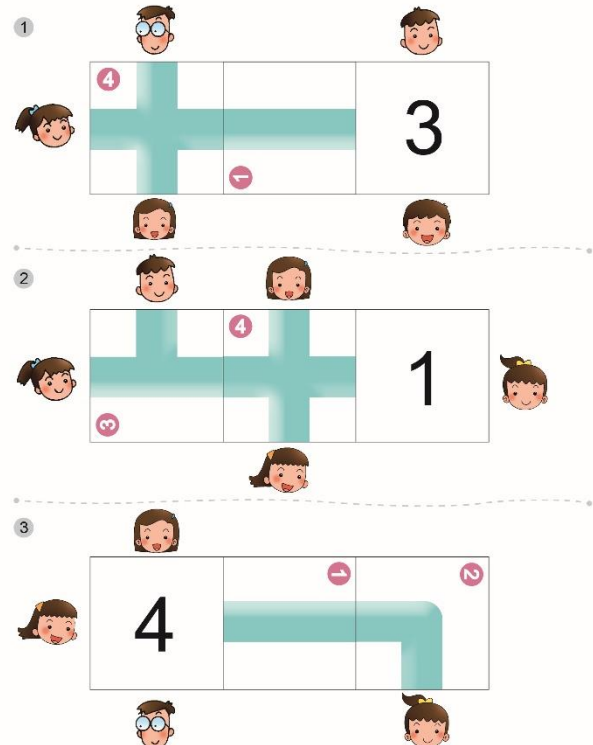
นำการ์ดเส้นทางจากกล่องอุปกรณ์มาวางเทียบ ช่วยกันหาเด็กชาย ไปให้ถึงจุดหมาย แล้วเขียนหมายเลขของการลงลงในช่องว่าง



31

Please take out the path cards, and build a connecting path for everyone. Then write down the number of the path card in the □.

นำการ์ดเส้นทางจากกล่องอุปกรณ์มาวางเทียบ ช่วยกันหาพวกเขาไปหาเพื่อนๆ แล้วเขียนหมายเลขของการลงลงในช่องว่าง



32

Class		Teacher	
Unit	F2-16	Topics	Paths

Manipulatives: Path cards

Learning Activities

1. Photocopy the first map on Student Book page 31.
2. Introduce the four path cards to students, and have students observe the difference between the cards.
3. Pick two cards. Rotate the cards and put them together to make different combinations.
4. Have students take out their path cards and practice making routes with the cards.
5. Put the map on the whiteboard. Ask students to look at the map and point out the bakery. Have one student come up to trace the route with finger.
6. Show students how to find the correct path card to complete the route.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Which way?

1. Ask students how to get to the office from the classroom? Have students walk the route.
2. Guide students to discuss if this route is closed, what other routes can they take.



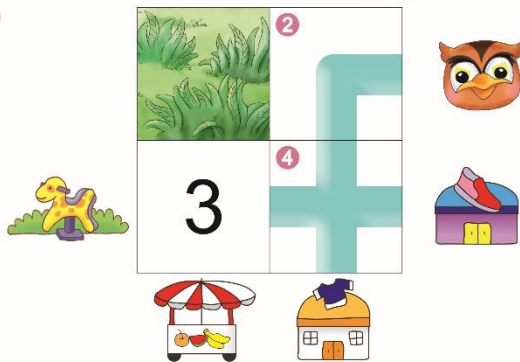
Please take out the path cards, and help Owl get to each place except the green grass. Then write down the number of the path card in the ☐.

นำการ์ดเส้นทางจากกล่องอุปกรณ์มาวางเทียบ ช่วยหาเลขน้อยไปยังสถานที่ต่างๆ แล้วเขียนหมายเลขของการลงลงในช่องว่าง (จะวิ่งอย่าเดินไปทางสนามหญ้า)

1



2



33

Please take out the path cards, and help the kids to see all the animals in the zoo. Then write down the numbers of the path card in the ☐. Avoid getting into the green grass.

นำการ์ดเส้นทางจากกล่องอุปกรณ์มาวางเทียบ ช่วยหาเด็กๆ ไปดูสัตว์ต่างๆ ในสวนสัตว์ให้ครบ แล้วเขียนหมายเลขของการลงลงในช่องว่าง (จะวิ่งอย่าเดินไปทางสนามหญ้า)

1



2



34

Class		Teacher	
Unit	F2-17	Topics	Paths

Manipulatives: Path Cards

Learning Activities

1. Photocopy the first map on Student Book page 33.
2. Show student the map and explain that they should avoid the green grass.
3. Place the four path cards on the whiteboard. Have students take turns to come up and pick one card to complete the route. Guide students to rotate the card and check if the path card is correct.
4. After students are familiar with the path cards, practice with bigger maps (2 by 3 grid) to make longer routes.

Student Book Activities

Guide students to complete the practice using the manipulatives and crayons.

Extended Activities

Map

1. Divide students into 3 or 4 groups. Give each group a simple map of some nearby places.
2. Assign two places. Have students discuss about the possible routes between A and B.
3. Advance the activity by assigning three places.