Mathematics Class 1

Term 1

Teacher's Guide

Ministry of Education, Youth & Sports
Bikenibeu, Tarawa, Republic of Kiribati

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UNIT 1: NUMERATION AND NOTATION

Lesson 1: The Meaning of 1

Outcome

Provide one object.
Name the objects.
Copy pictures.

Teaching Aids

Charts

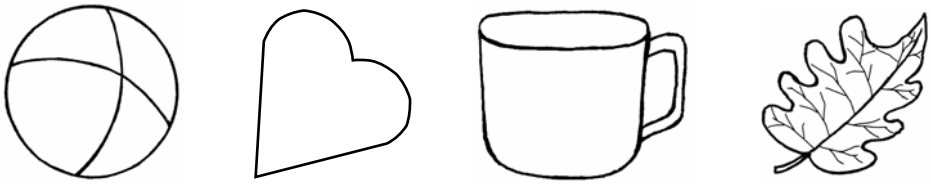
Teaching for Understanding

Collect five different objects, one of each kind, such as 1 tin, 1 cup, 1 plate, 1 ruler, 1 bottle.
Tell children to name each object. Ask, How many tins are there?
How many plates? How many rulers? and so on.

Invite five children to the front and tell them to bring to you any one object they like in the classroom. Ask, how many ____ has Jone? How many ____ has Bebe? Do the same with the other three children.

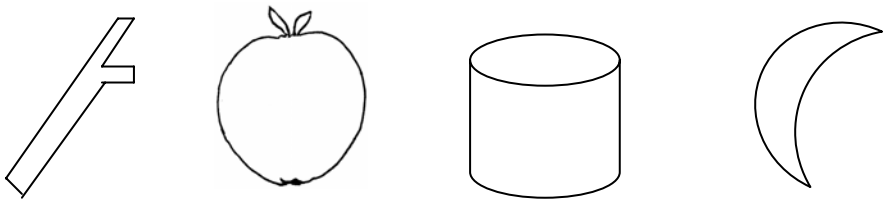
Group Work

Put children into groups of five or six.
Provide each group with a sheet of paper.
Copy the following pictures onto the chart.



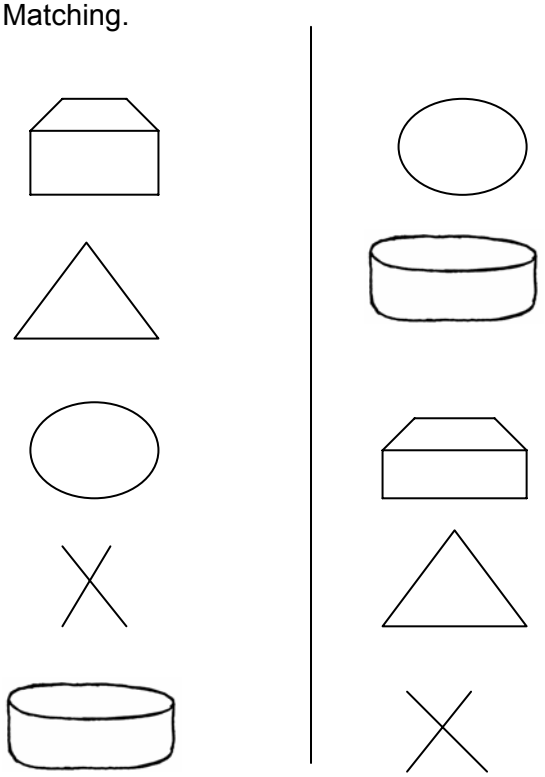
Individual Application

Copy these pictures into your exercise books.



Additional Exercise

Matching.



Lesson 2: The Meaning of 2

Outcome

Provide two objects.
Name objects.
Trace pictures.

Teaching Aids

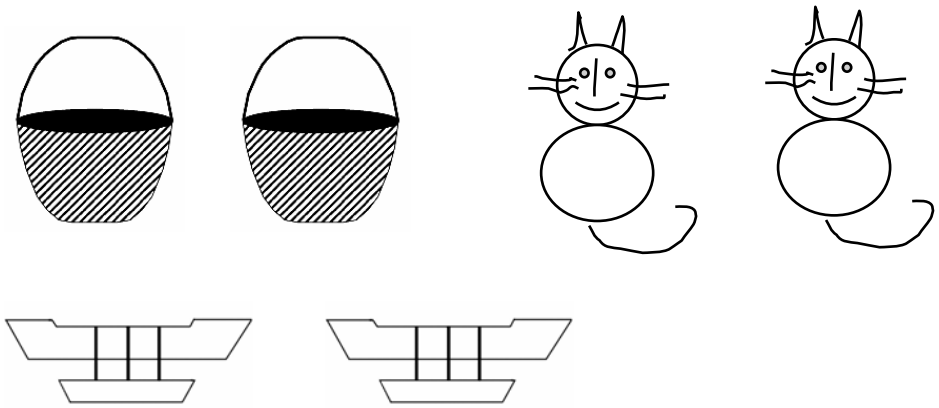
Charts, tracing paper, colours

Teaching for Understanding

Collect five different objects, two of each kind, such as two tins, two cups, two plates, two rulers and two bottles. Tell children to name each group of objects. Ask children to read out the number of objects in each group. Ask, How many tins are there? How many cups are there ? and so on.

Group Work

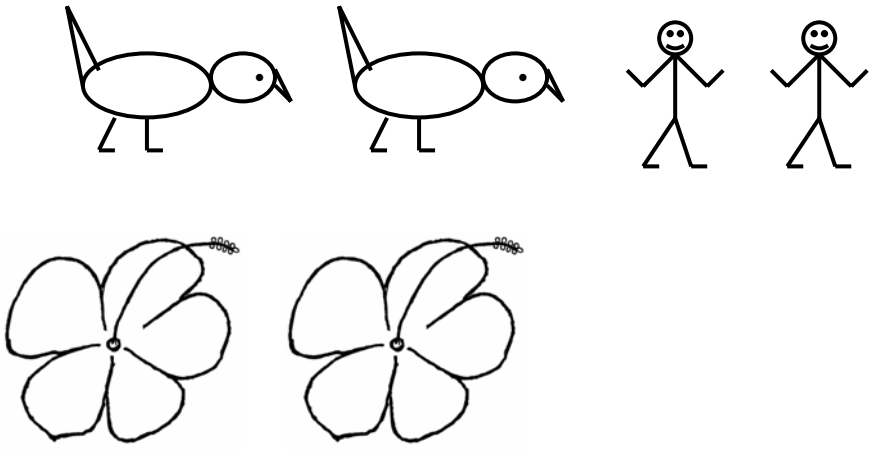
Trace these pictures then stick them on the chart. Colour them.



Display group work

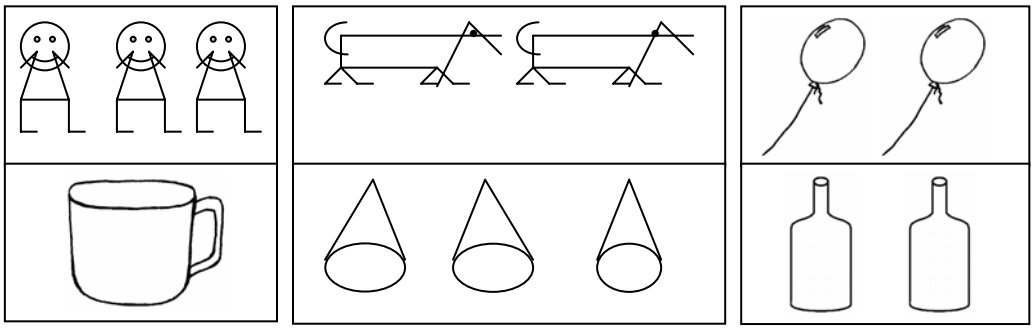
Individual Application

Trace these pictures into your book.



Additional Exercise

Circle the boxes with two pictures.



Lesson 3: The Meaning of 3

Outcome

Provide three objects.
Name the objects.
Identify the common usage of objects.

Teaching Aids

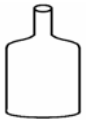
Things in the play corner

Teaching for Understanding

Pick up any three objects from the play corner that have the same use. Say the names and the common use. For example :

i) → 3 things for eating

plate spoon cup

ii)  → 3 things for storing water

tin cup bottle

Group Work

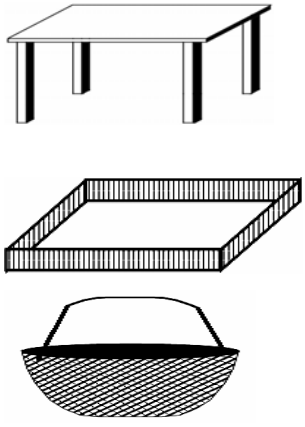
Put children into groups of five or six.
Each group collects three things with a common purpose.
Each group reports on its work to the class.

Individual Application

Draw a picture of any three objects that can be used as a vase for the table.
Colour the pictures.

Additional Exercise

Match the objects with the right place to keep them.



Lesson 4: The Meaning of 4

Outcome

Provide four objects of the same size.
Identify big objects and small objects.

Teaching Aids

1 big cup, 1 small cup, 1 big tin, 1 small tin, 1 big book, 1 small book,
1 big sheet of paper, 1 small sheet of paper, charts

Teaching for Understanding

Put the cups, tins, books and sheet of paper on the table where everyone can see. Ask a volunteer to come out and group the objects according to size (big or small). Ask the children, How many big things are there? How many small?

Group Work

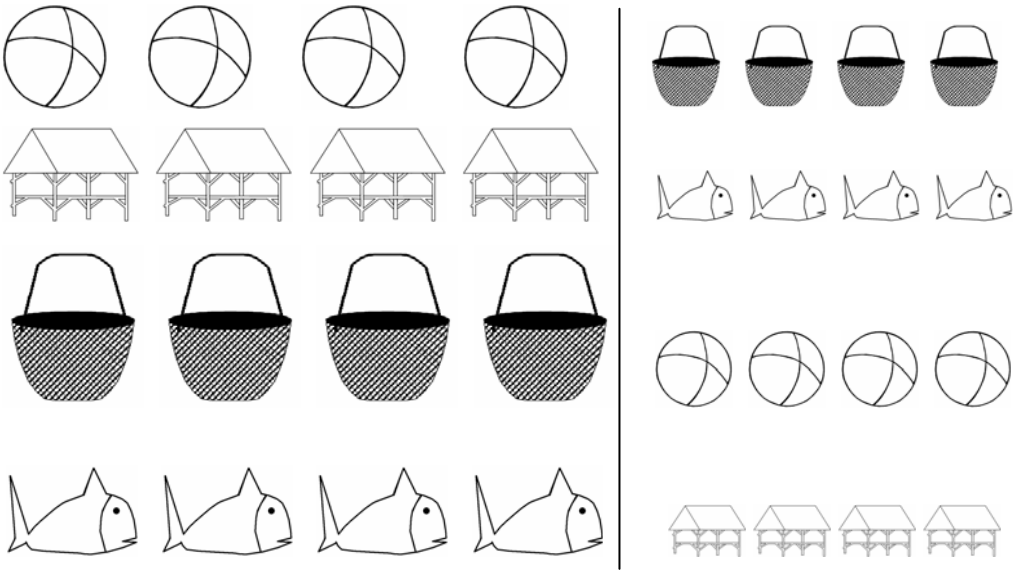
In groups of five or six, children choose any four objects of the same size (big or small).
They draw the pictures of the four objects on the charts. One group member reports on the group's work to the class.

Individual Application

Choose any four objects of any size.
Draw the pictures of the four objects in your book.

Additional Exercise

Match the big pictures with the small pictures.



Lesson 5: The Meaning of 5

Outcome

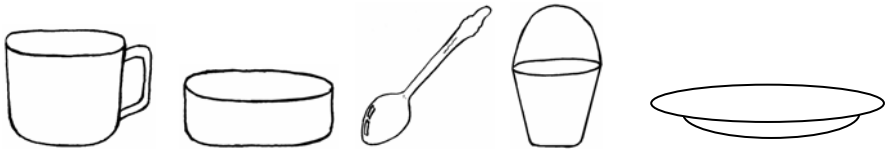
Provide five objects of the same colour.
Use the correct colour names.

Teaching Aids

Colours (red, blue, green, brown, yellow) : a red cup, a red bowl, a red spoon, a red jug, a red plate, charts

Teaching for Understanding

Collect five objects of the same colour. For example :



Count the objects (1 to 5) several times. Explain to the children that the five objects are all red. Allow children to point any other red objects in the classroom.

Group Work

Put children into five groups.
Each group collecs five objects of the same colour such as follows :

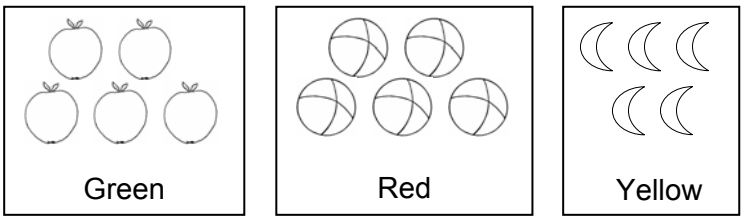
Group 1: ⟶ 5 blue things
Group 2: ⟶ 5 green things
Group 3: ⟶ 5 orange things
Group 4: ⟶ 5 pink things
Group 5: ⟶ 5 yellow things

Draw the pictures of the 5 objects on a chart and colour.

Display the work.

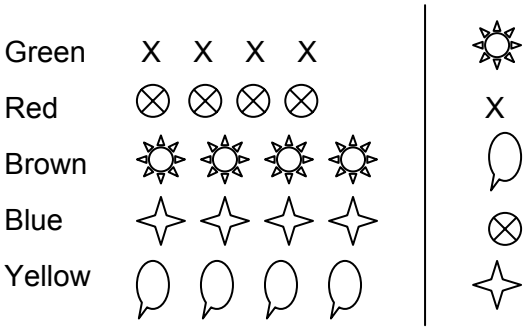
Individual Application

Copy the pictures and colour them with the colour shown below.



Additional Exercise

Match the pictures and complete the 5 elements.



Lesson 6: Identifying and Writing the Numbers 1 to 5

Outcome

Identify the numbers 1 to 5.
Write the numbers 1 to 5.
Draw pictures equivalent to a given number.

Teaching Aids

Number cards (1 to 5), charts, tins
Picture cards (1 to 5), glue

Teaching for Understanding

Put 1 tin on the table. Tell the children to count. Ask, How many tins are there on the table? Then show a figure on a flash card. Place the number card beside the tin.

Put 2 tins on the table. Tell the children to count. Ask, How many tins are there on the table? Then show a figure 2 on a flash card. Place the number card beside the tins.

Do the same with 3, 4 and 5.

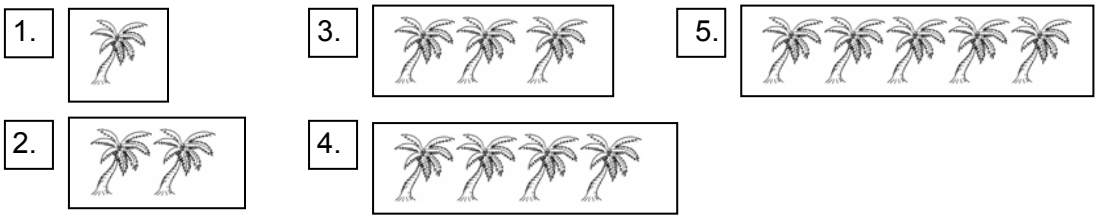
Write the numbers 1 to 5 on the blackboard and draw pictures beside each number such as follows :

1. ○
2. ○ ○
3. ○ ○ ○
4. ○ ○ ○ ○
5. ○ ○ ○ ○ ○

1. ☕
2. ☕ ☕
3. ☕ ☕ ☕
4. ☕ ☕ ☕ ☕
5. ☕ ☕ ☕ ☕ ☕

Group Work

Put children into groups of five or six.
Each group sticks the number cards and the correct picture cards (already made) beside them. The members of the group take it in turns. One child sticks a number card onto the chart and another child finds the correct picture card to match and stick beside it. For example :



Display work.

Individual Application

Copy this into your book.

1

2

3

4

5

Colour the pictures.

Additional Exercise

Draw a line from each number to the right number of pictures.

1	♡ ♡ ♡ ♡
2	♡ ♡ ♡
3	♡ ♡ ♡ ♡ ♡
4	♡
5	♡ ♡

Lesson 7: More Practice with Numbers 1 to 5

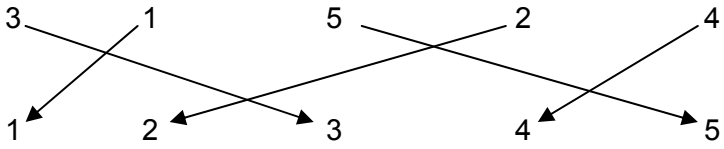
Outcome

Identify and write numbers 1 to 5 in a more confident manner.

Teaching Aids

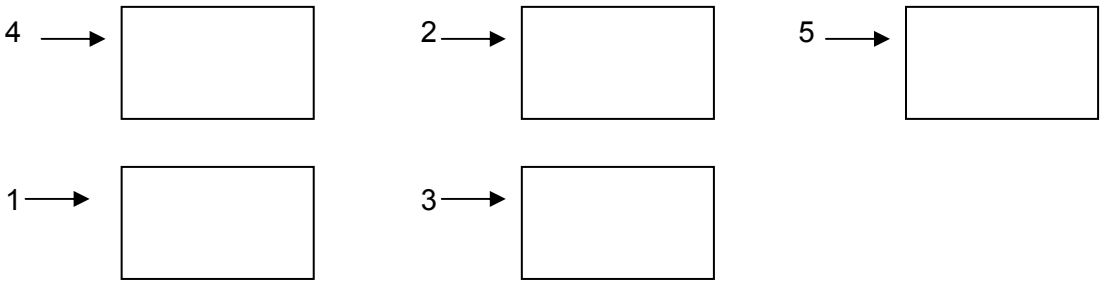
Teaching for Understanding

On the blackboard, write numbers 1 to 5 in any order.
The children rearrange them into order with your help.
For example :



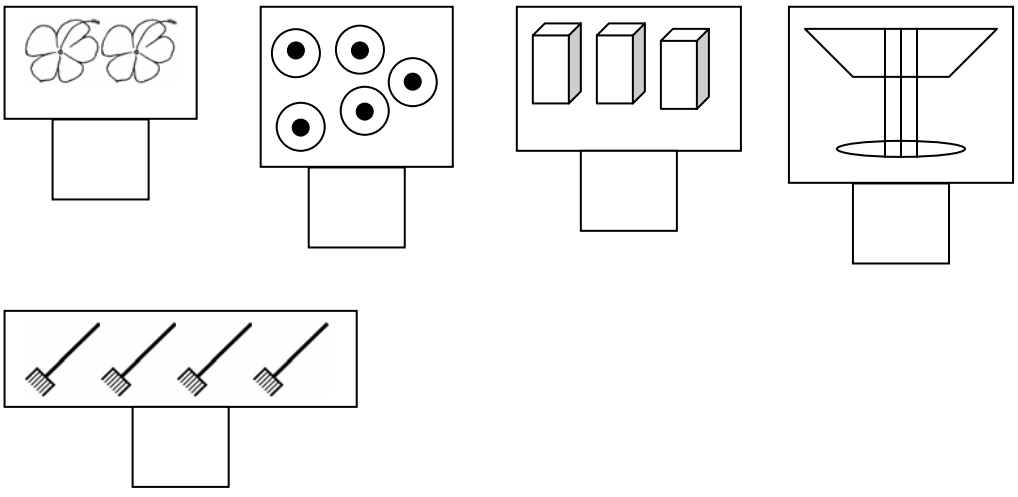
Group Work

Draw the correct number of objects in each box.



Individual Application

Write the number in the box.



Additional Exercise

Matching.

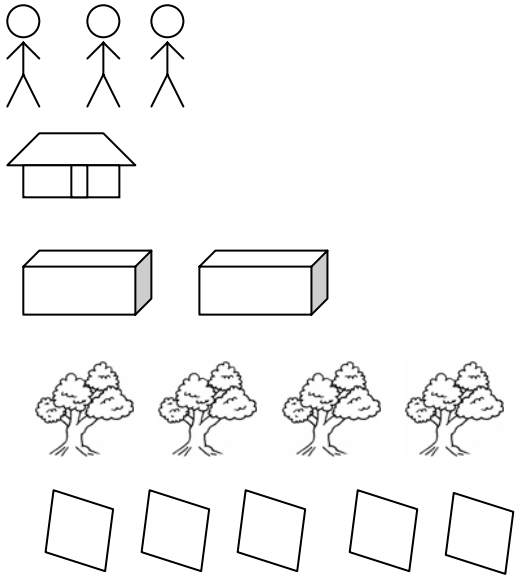
2

3

1

5

4



Lesson 8: The Meaning of 0 (Zero)

Outcome

Identify the number 0.
Write the number 0.
State that an empty container has 0 elements.

Teaching Aids

Charts, empty containers eg : boxes, tins, bottles etc.

Teaching for Understanding

Show some empty containers to the children. Ask, Are there any matchsticks in this box? Children will say, **No**. Since there is nothing in this box we will write 0 to indicate that the box is empty.
Write 0 on the board and tell the children how to say it. Ask the children to make the number 0 with their arms.
Write these on the blackboard.

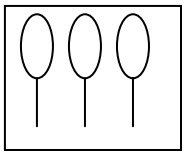
Ask a volunteer to come up and explain why 0 is written beside the pictures.

Group Work

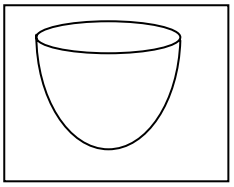
Put children into groups of five or six.
Each group member finds an empty container, draws a picture of it on the chart and writes 0 beside each picture.
Group members describe to each other the empty container they have collected.
Colour the pictures and display the work.

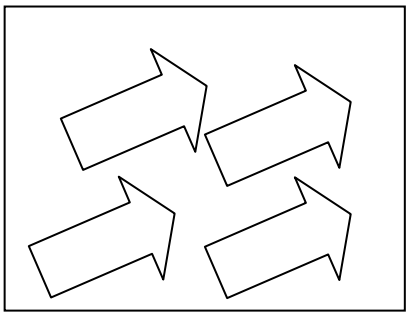
Individual Application

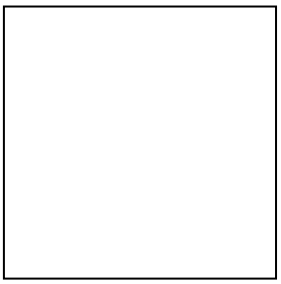
Circle the empty boxes.

1. 

2.

3. 

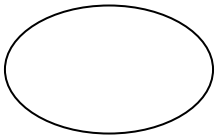
4. 

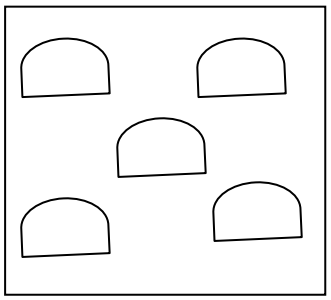
5. 

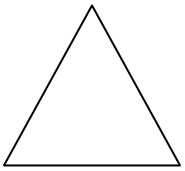
6.

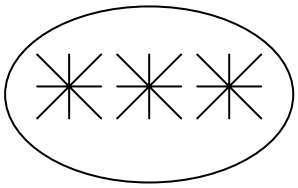
Additional Exercise

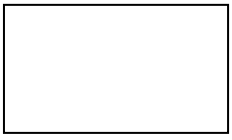
Write 0 under the right diagram.

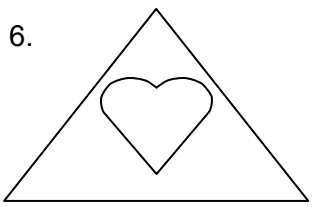
1. 

2. 

3. 

4. 

5. 

6. 

Lesson 9: Writing and Understanding the Numbers 6 to 10

Outcome

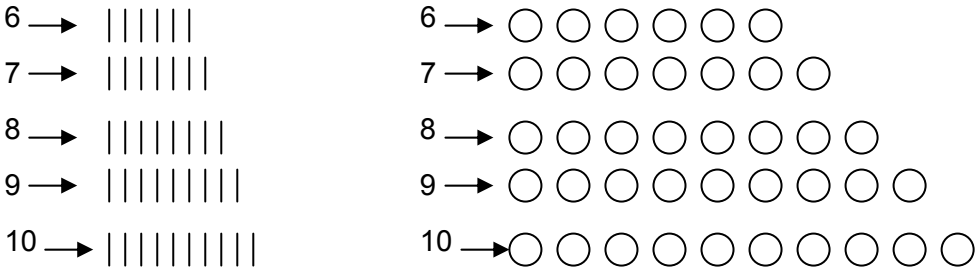
Identify numbers 6 to 10.
Write numbers 6 to 10.
Choose the correct number for a set of elements.

Teaching Aids

Flash card numbers, pictures on the chart

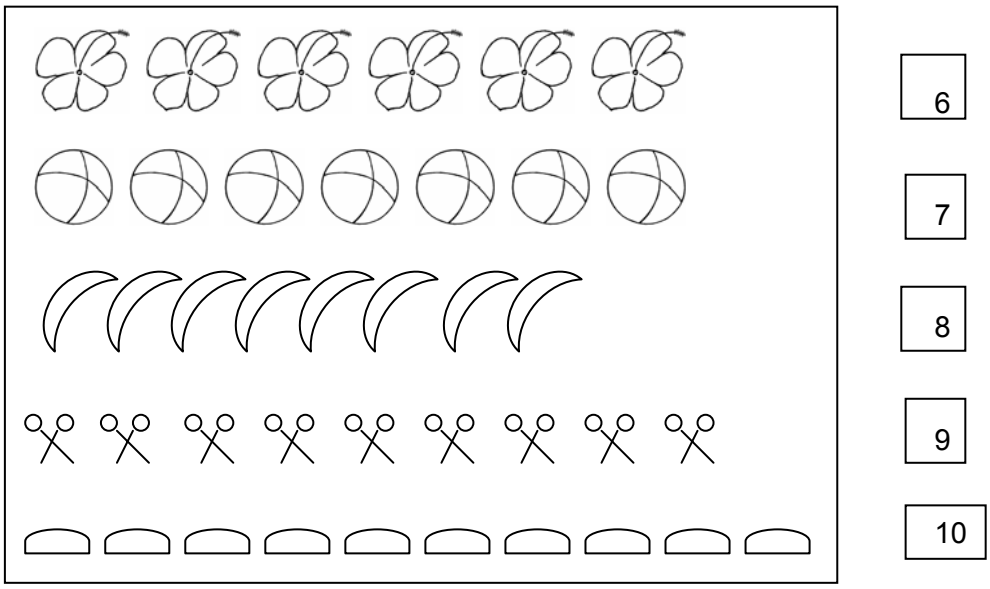
Teaching for Understanding

Write these numbers on the blackboard : 6, 7, 8, 9, 10.
Read out the numbers to the children and show the elements for each number.
For example :



Group Work

Divide the class into 2 teams.
Put the chart with pictures on the wall in front.
Put the number cards upside down on the table.
One child from each team runs to the table, picks up any number and places it beside the equivalent picture.
For example :



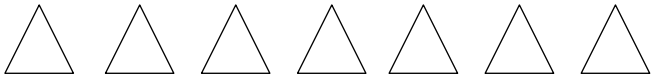
The first one to place a number card beside the right picture will get point for the team.

Repeat the game until everyone has had a turn.
The number card should be returned to the table.

Individual Application

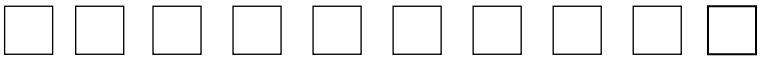
Copy these into your book.

6.

7. 

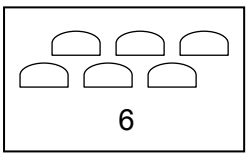
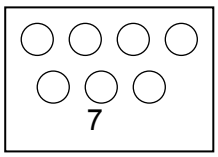
8.

9.

10. 

Additional Exercise

Make a book of figures 6 to 10.
Draw pictures to show the correct number of elements for each number. For example:

Cover	Page 1	Page 2
Te wareware 6 nakon 10	 6	 7

Lesson 10: More Work with Numbers 6 to 10

Outcome

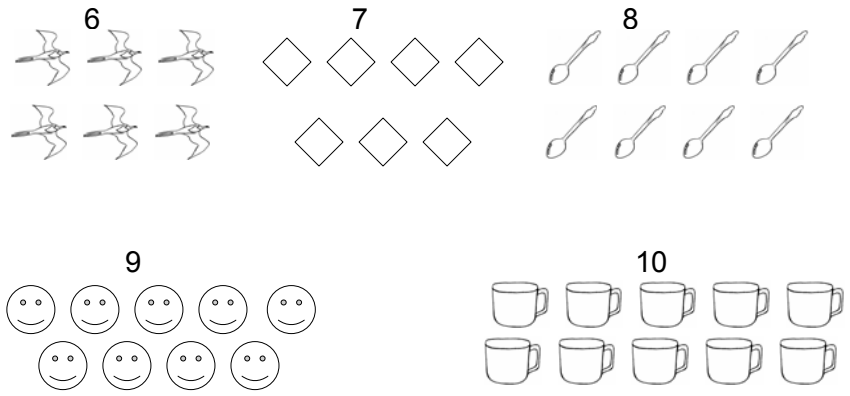
Identify and write numbers 6 to 10 more confidently.

Teaching Aids

Te non or *te bero* fruits, straws or string, flash cards

Teaching for Understanding

Write the numbers 6 to 10 in any order on the blackboard. Ask one child to write the first number in the order smallest to biggest. Ask another child to write the next number. Do the same with the other numbers. Then ask one child to draw pictures for the first number. Ask another child to draw pictures for the next number and so on. When completed it will look like this :

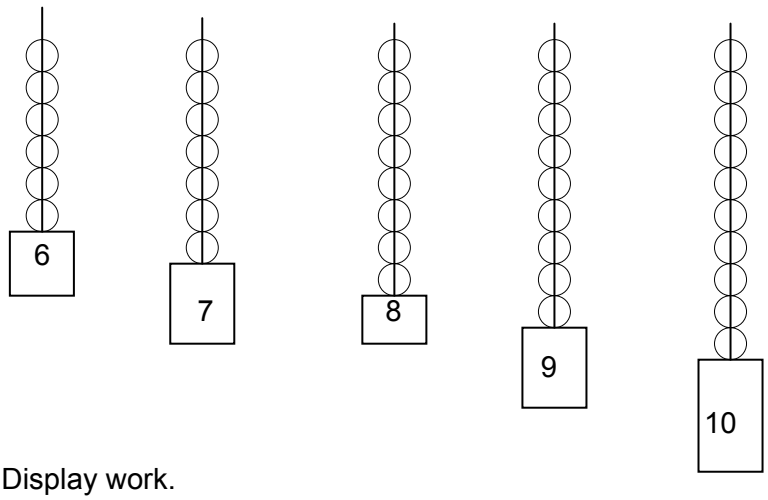


Group Work

Put children into groups of five.

One child threads 6 *non* or *bero* fruits with a straw or string. The other four group members thread 7, 8, 9 and 10.

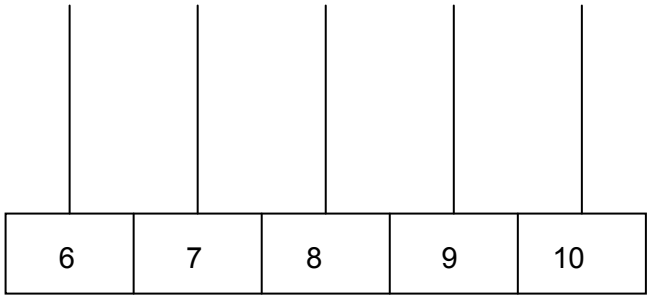
Write the number on a flash card and hang it with the fruits. It will look like this :



Display work.

Individual Application

Draw on the bars pictures of any objects that are equivalent to the numbers shown.



Additional Exercise

Make your own patterns for these numbers, 6, 7, 8, 9, 10.
For example :

Lesson 11: Writing and Understanding the Numbers 11 to 15

Outcome

Identify numbers 11 to 15.
Write numbers 11 to 15.
Draw pictures of elements for numbers 11 to 15.

Teaching Aids

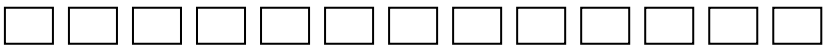
Objects around the classroom for counting.

Teaching for Understanding

Write 11 on the blackboard. Ask, How do you say this number? Ask one child to put 11 books on the table. Allow children to count aloud the number of books. Do the same with 12, 13, 14, and 15.
Write 11 again on the board and invite one child to draw pictures to show the elements of 11. Do the same with 12, 13, 14 and 15. For example :

11 -

12 -

13 - 

14 -

15 -

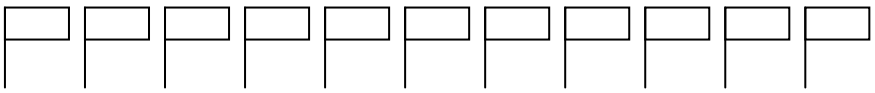
Group Work

Put the children in groups of five.
One group member collects 11 objects. The other four members collect 12, 13, 14 and 15 objects. Each one counts their objects to the others.
Make sure the counting of objects is done properly, with one to one correspondence.

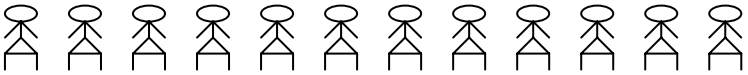
Individual Application

Copy these figures and pictures into your books.

11



12



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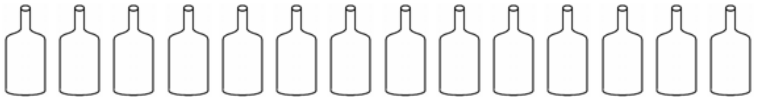


15

Additional Exercise

Match the numbers with the correct set.

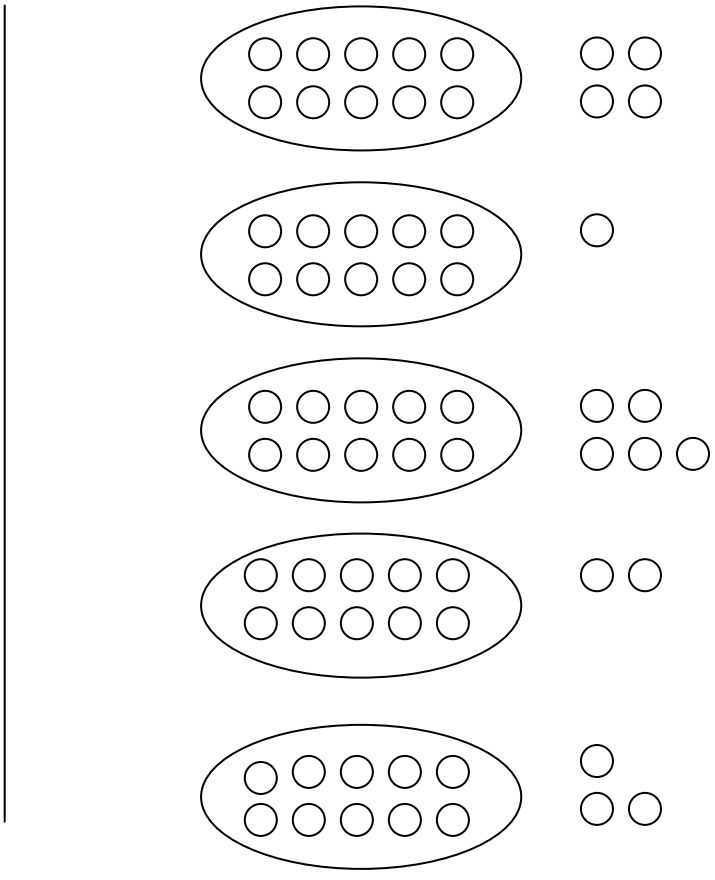
11

12

13

14

15



Lesson 12: More Work with Numbers 11 to 15

Outcome

Identify and write numbers 11 to 15 more confidently.

Teaching Aids

Pictures cards, number cards

Teaching for Understanding

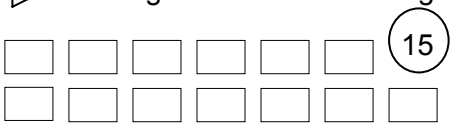
Draw a picture of 11 cups. Count the pictures with the children.
Invite one to go to the blackboard and write the numeral for the set. Repeat the procedure with numbers 12, 13, 14 and 15.

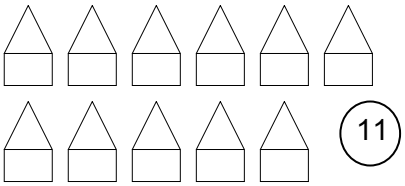
Group Work

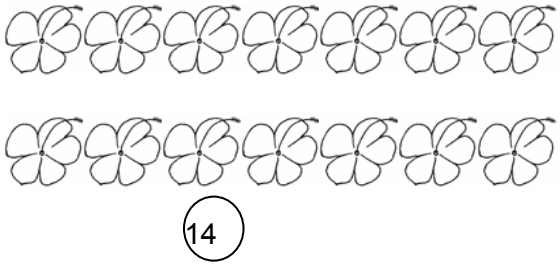
Put children into groups of five.
Each group makes a book with numbers 11 to 15 as in lesson 9 (Additional Exercise).
Each group member works with one number.
Compile the book and display it.

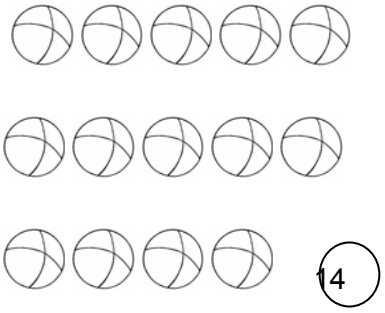
Individual Application

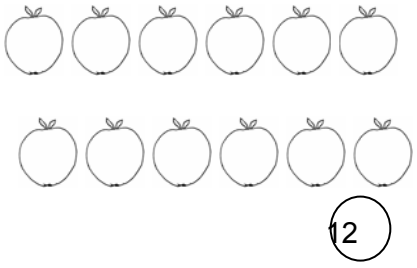
Write ✓ if it is right and X if it is wrong.

1. 

2. 

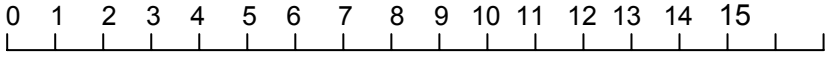
3. 

4. 

5. 

Additional Exercise

Draw a number line from 0 to 15.
Use a ruler to draw a straight line and to divide the line into equal parts, as in the example below.



Lesson 13: Writing and Understanding the Numbers 16 to 20

Outcome

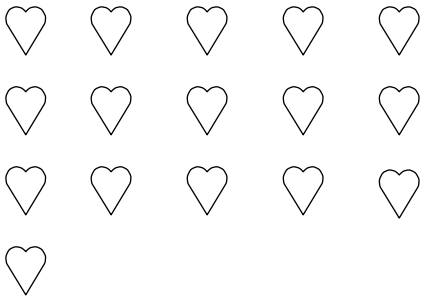
Identify numbers 16 to 20.
Write numbers 16 to 20.
Draw pictures of elements for numbers 11 to 15.

Teaching Aids

Paper for making group books

Teaching for Understanding

Write 16, 17, 18, 19, 20 on the blackboard. Read them with the children. Show the elements for each number, such as :

16 

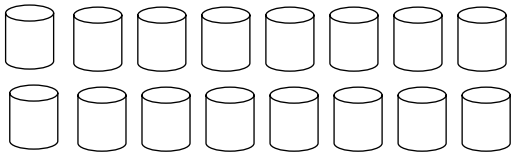
17

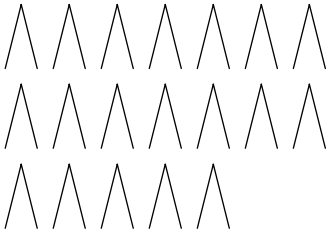
Group Work

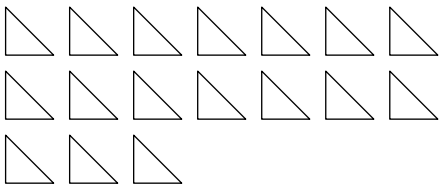
In groups of five, children produce a book about the numbers 16 to 20, as in Lesson 12. They may colour the pictures to make their books look attractive.

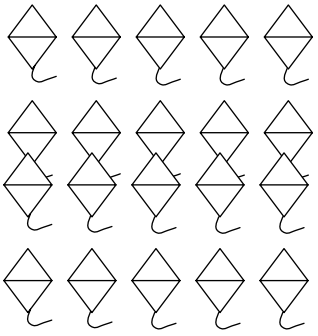
Individual Application

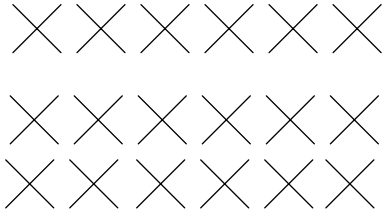
Copy these into your books.

16 

19 

17 

20 

18 

Additional Exercise

Matching.

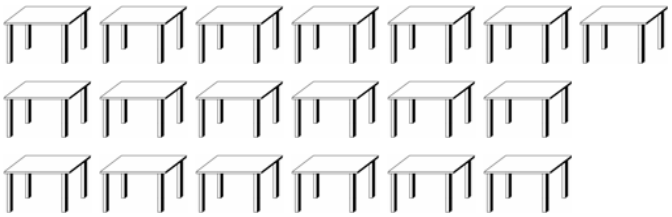
16

17

18

19

20



Lesson 14: More Work with Numbers 16 to 20

Outcome

Identify and write numbers more confidently.

Teaching Aids

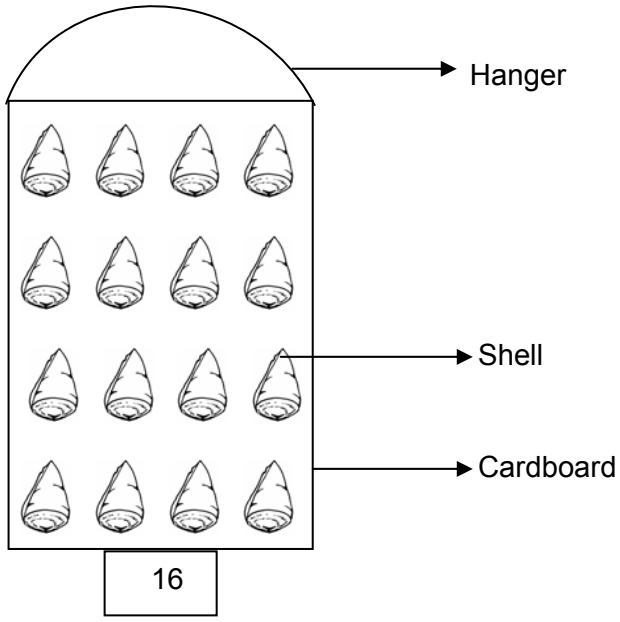
Shells, paste, cardboard

Teaching for Understanding

Write 16, 17, 18, 19, 20 on the blackboard or chart. Ask children where a number comes, to help them know which number comes before, after and between which other number. For example :
Which number comes before 17?
Which number comes after 17?
Which number comes between 18 and 20? and so on.

Group Work

In groups of five or six, children stick shells on pieces of cardboard for the various numbers. Write a number card for each piece of cardboard. For example :



Individual Application

Write the missing numbers.

1. ___, 17
2. ___, 18
3. 18, ___
4. 19, ___
5. 16, ___, 18
6. 18, ___, 20
7. 16, ___, ___, 19, ___
8. 17, 18, ___, 20
9. ___, 18, 19, 20
10. ___, 17, ___, ___, 20

Additional Exercise

Write True if the numbers are in the correct order, False if they are not in the correct order.

1. 17, 18, 19
2. 19, 18, 16
3. 16, 17, 18
4. 17, 19, 20
5. 19, 20, 18
6. 18, 19, 20

Lesson 15 : Assessment

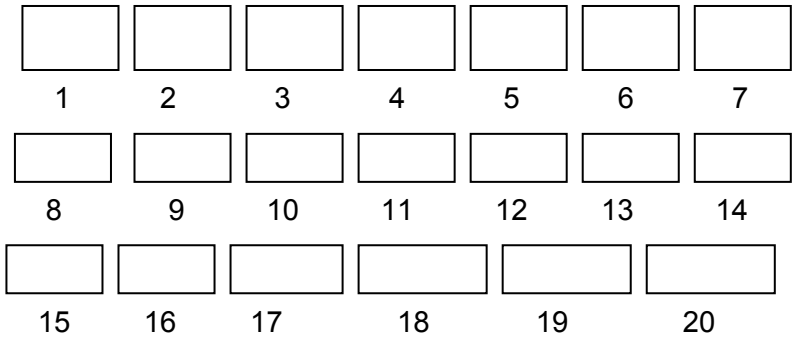
Gorup Work

In groups of five or six, children make a book about the numbers 1 to 20.

They draw and colour pictures for each number.

Individual Application

1. Draw pictures which show each of these numbers.



2. Fill in the missing number.

   a) 1, 2, ___, ___, 5, 6, 7, 8, ___, 10.

   b) 11, 12, 13, ___, 15, 16, ___, 18, 19, 20.

UNIT 2: SETS

Lesson 1: Identifying Sets and their Elements

Outcome

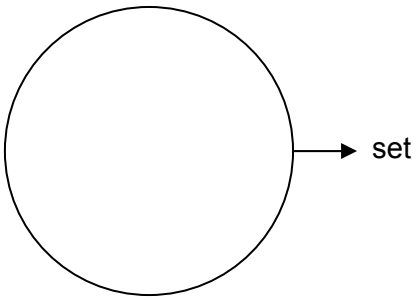
Identify a set.
Identify elements of a set.

Teaching Aids

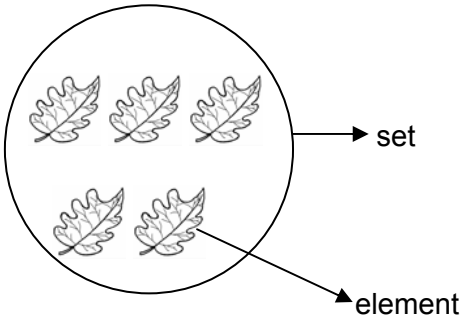
Objects (leaves, stones, tins, books, etc)

Teaching for Understanding

Write the word **set** on the board. Read it out to the children then allow children to read the word several times. Then explain the meaning, that it is a collection of things. In mathematical terms the word set is represented by a circle like this.



Do the same to the word **element** meaning things in a set. For example :



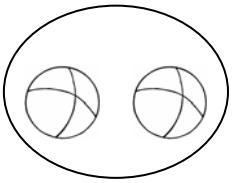
Since the leaves are in the above set, the set is called a set of leaves. The elements are the leaves.

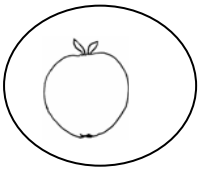
Group Work

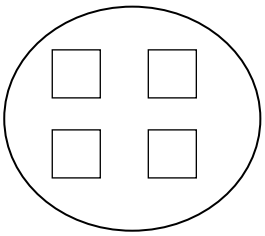
In group of five or six, the children make their own sets from any objects they can find. They may use string or *te taboa* to make the circle of their sets.
One group member reports to the other groups on what the group has done.

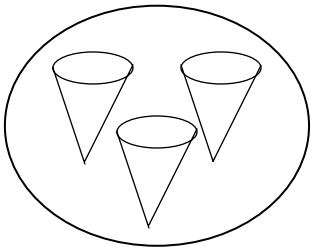
Individual Application

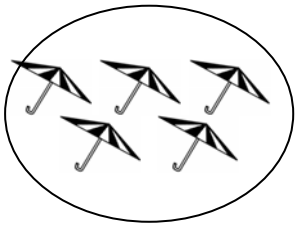
Copy these sets into your books.

1. 

2. 

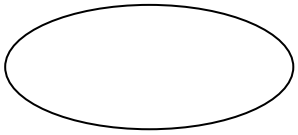
3. 

4. 

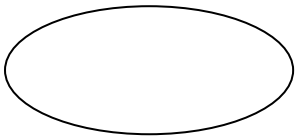
5. 

Additional Exercise

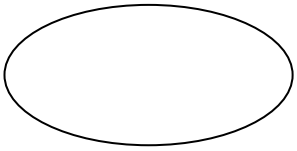
Draw the following sets.



Set of shells



Set of sticks



Set of flowers

Lesson 2: More Work on Sets and Elements

Outcome

Name a set.
Form a set.
State which is a set and which is an element.

Teaching Aids

Teaching for Understanding

Briefly review the two words **set** and **element** by inviting one or two children to draw a set and its elements on the blackboard. Ask questions such as :

What are the elements? What is the set called?

Group Work

Put children into four or more groups.
Each group forms a set as described below.
Each group member contributes at least one element for the set.

Group 1: Set of leaves
Group 2: Set of school materials
Group 3: Set of lids
Group 4: Set of containers

You may add more to the list if you have more groups.
Groups copy or draw their set onto the chart and display the work.

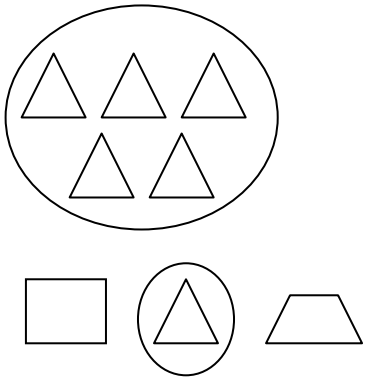
Individual Application

Draw these sets in your book.

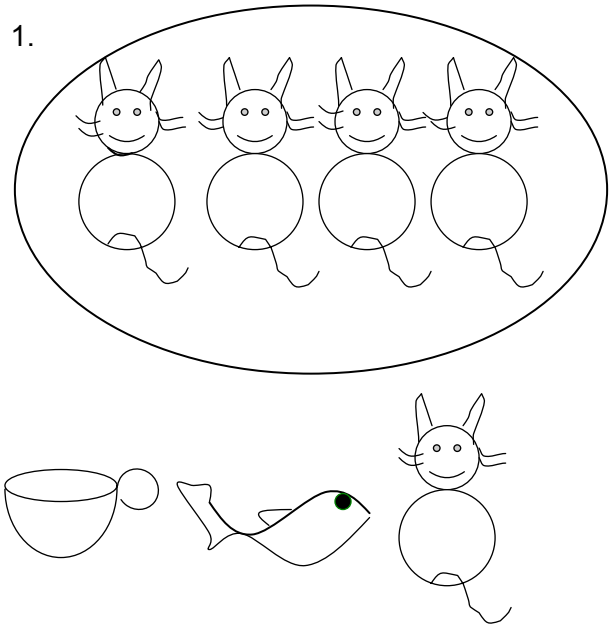
1. A set of leaves
2. A set of plants
3. A set of houses
4. A set of flowers
5. A set of tins

Additional Exercise

Circle the picture which is an element of the set.
An example is done for you.



1.



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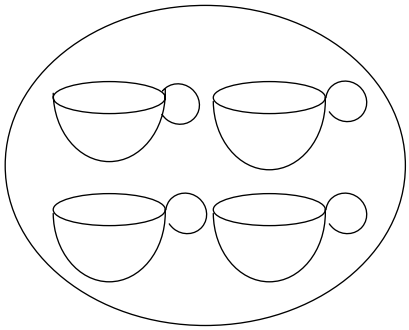

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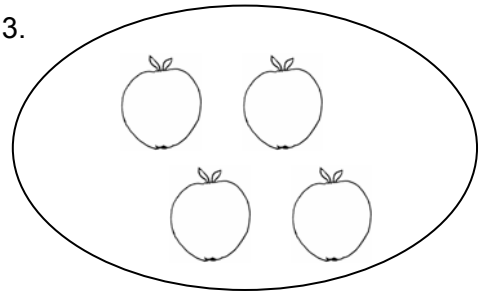

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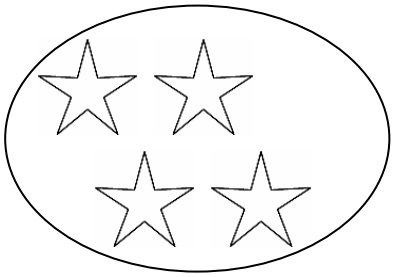


Lesson 3: Sets with Elements of 1 to 5

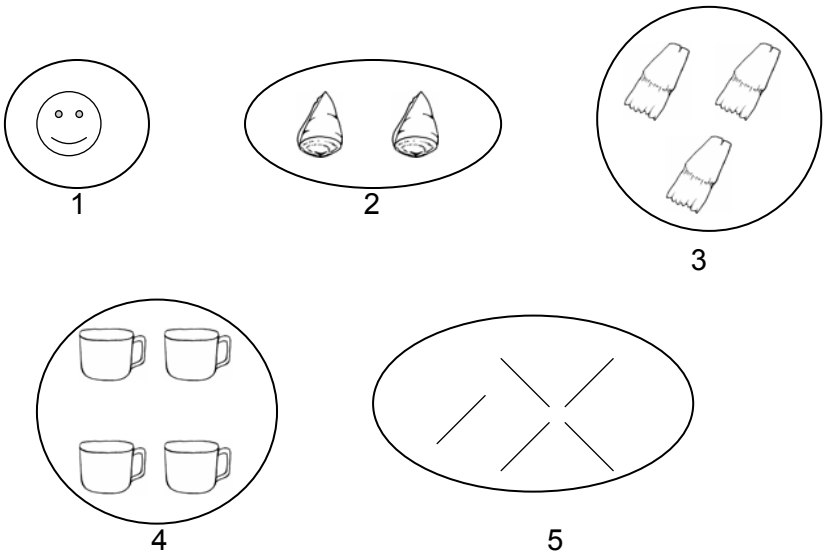
Outcome

Identify sets.
State how many elements in a set.
Draw sets from given numbers.

Teaching Aids

Teaching for Understanding

Draw a set on the blackboard with 1 element. Ask, how many element in this set? Then write numeral 1 beneath the set. Do the same with 2, 3, 4 and 5. For example :

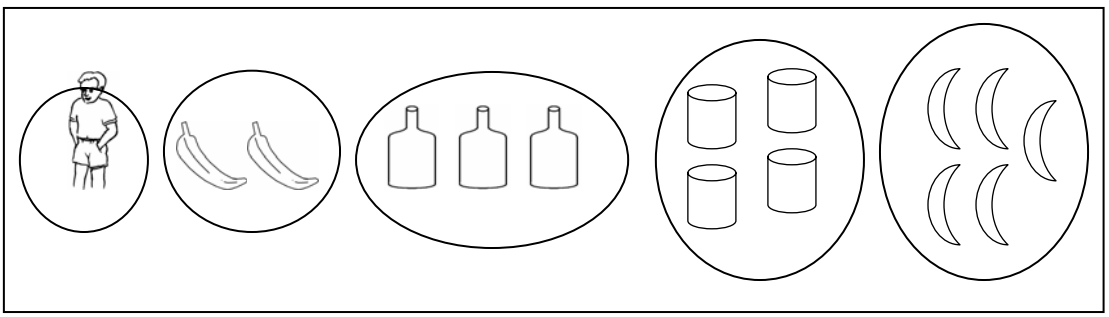


Point out clearly that the sets have different number of elements.

Group Work

Put children into groups of five to draw five sets of elements 1 to 5.
Provide each group with a chart.
Each group member draws one set on the chart.

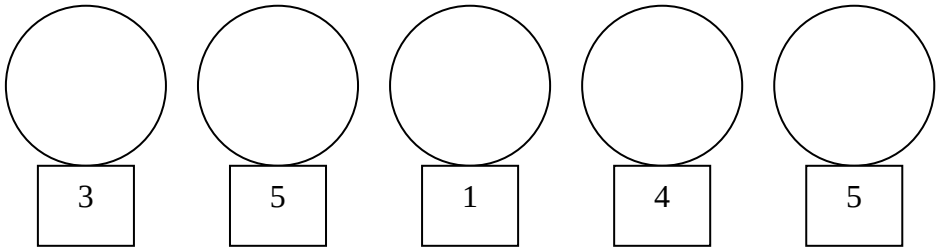
The chart will look like this :



Display group work.

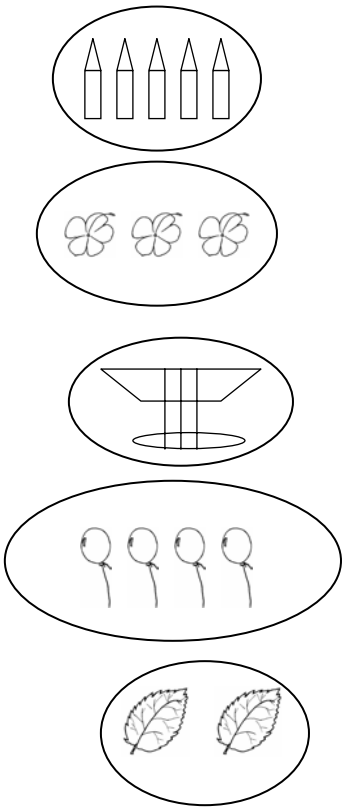
Individual Application

Put in the elements according to the number shown below each set.



Additional Exercise

Matching.



2

4

5

1

3

Lesson 4 : Sets with Elements of 6 to 10

Outcome

Identify sets with elements of 6 to 10.
Draw sets from given numbers and vice versa.

Teaching Aids

Sheet of A4 paper, cardboard, paste, string

Teaching for Understanding

Repeat the procedure in Lesson 3 but this time work with numerals 6, 7, 8, 9, and 10.

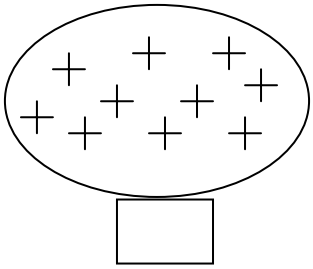
Group Work

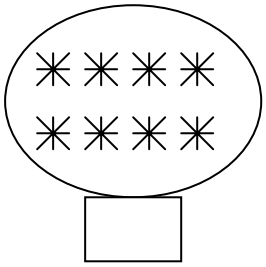
Put children into five groups.
Provide each group with a sheet of paper, cardboard, colour, paste and string.
Children draw a set with elements on a sheet of paper. Colour the pictures.
Then stick the sheet of paper on the cardboard. Tie the cardboard with a piece of string to hang it up. Display work.

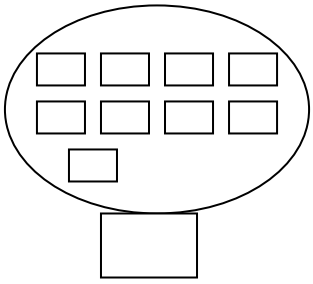
Group 1: A set with 6 elements
Group 2: A set with 7 elements
Group 3: A set with 8 elements
Group 4 : A set with 9 elements
Group 5 : A set with 10 elements

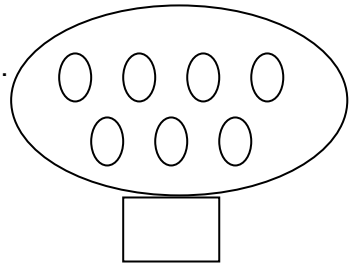
Individual Application

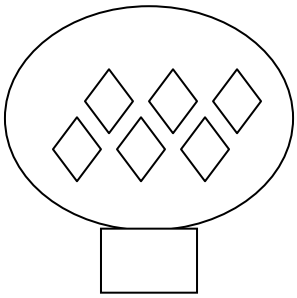
Write the correct number for each set.

1. 

2. 

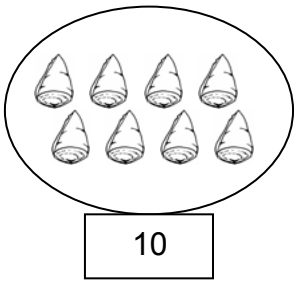
3. 

4. 

5. 

Additional Exercise

Write **True** or **False**.

1. 
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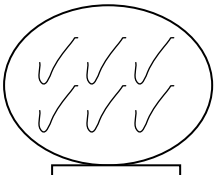
2. 
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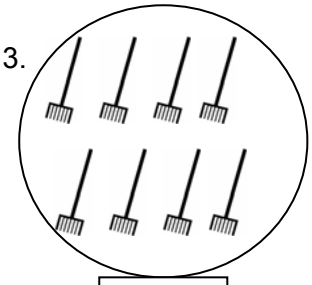
3. 
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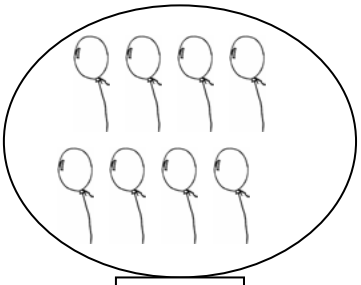
4. 
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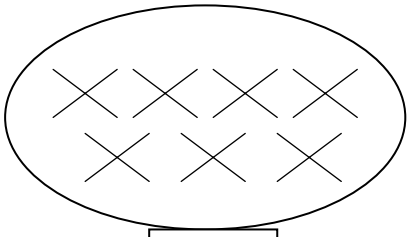
5. 
7

Lesson 5: Sets with Elements of 11 to 15

Outcome

Identify sets with elements of 11 to 15.
Draw sets from given numbers and vice versa.

Teaching Aids

Teaching for Understanding

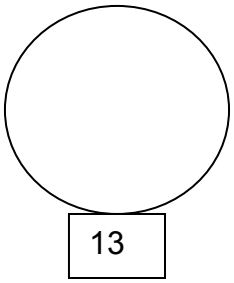
Briefly review sets and elements by playing this game. Draw sets with elements 11 to 15 on the board. Call two children to stand up and face the back. Tell them that, when the blackboard is hit, they will quickly look at the blackboard and call out the number for the set to which you point. The first one to call out the correct answer will get a point for the team.

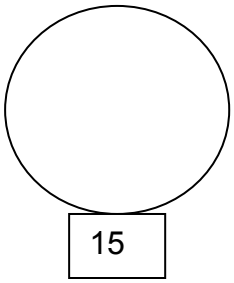
Group Work

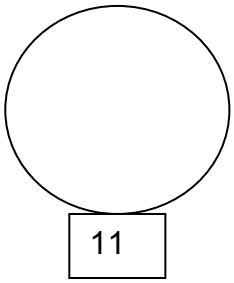
As in Lesson 4, but this time work with numbers 11 up to 15.

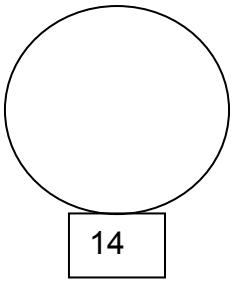
Individual Application

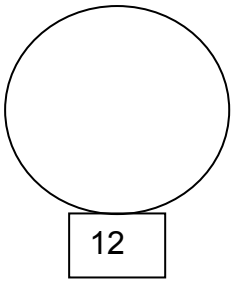
Draw the elements for each of these sets.

1. 

2. 

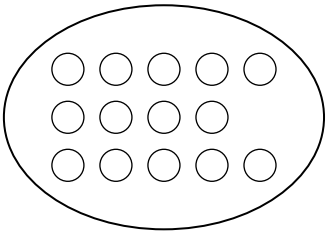
3. 

4. 

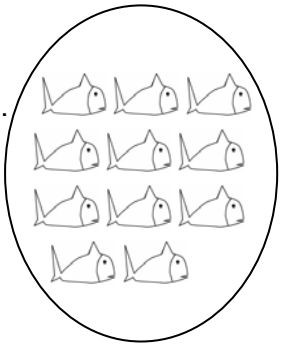
5. 

Additional Exercise

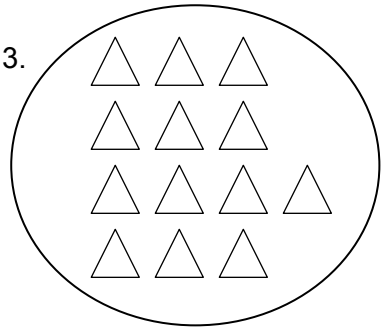
Circle the correct number.

1. 

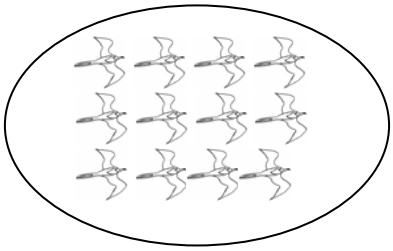
11, 12, 14

2. 

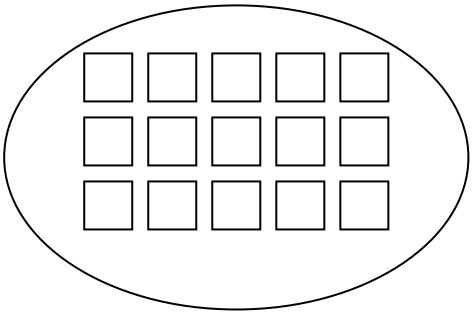
11, 13, 14

3. 

12, 15, 13

4. 

12, 13, 14

5. 

14, 15, 12

Lesson 6 : Sets with Elements of 16 to 20

Outcome

Identify sets with elements of 16 to 20.
Draw sets from given numbers and vice versa.

Teaching Aids

Flash card number, blackboard/chalk

Teaching for Understanding

Briefly review the same concept with a different game.
Divide the children into two teams.
Draw two circles on the blackboard.
Two children, one from each team, stand up and face the back.
When the blackboard is hit, a number card is shown, the two competitors quickly look at the card and fill in the set on the blackboard. For example, if **16** is shown, the set should be filled with 16 elements. The first one to get the work done correctly will get a point for the team.

Group Work

As in Lesson 5 but this time the groups will do the following:

Group 1: A set with 16 elements
Group 2: A set with 17 elements
Group 3: A set with 18 elements
Group 4: A set with 19 elements
Group 5: A set with 20 elements

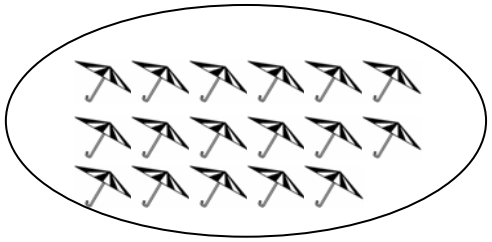
Individual Application

Draw sets for these numerals.

1.	17	3.	16	5.	18
2.	19	4.	20		

Additional Exercise

Matching.



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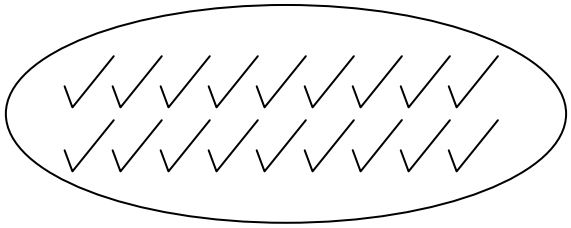

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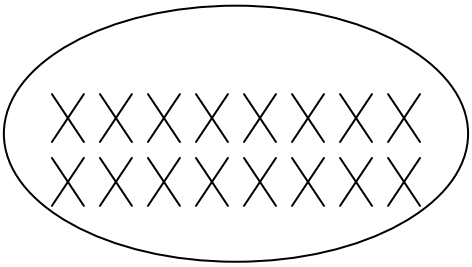
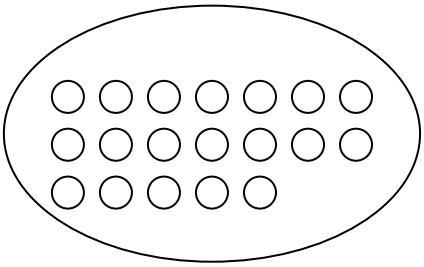
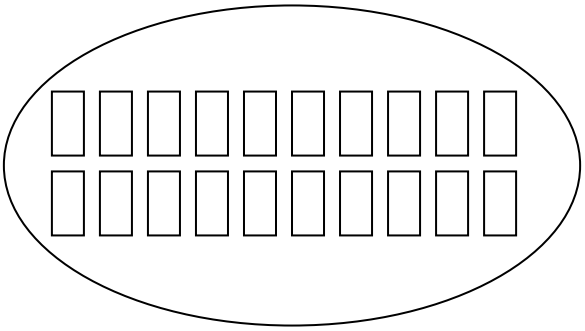


17



16



18

Lesson 7: Subsets

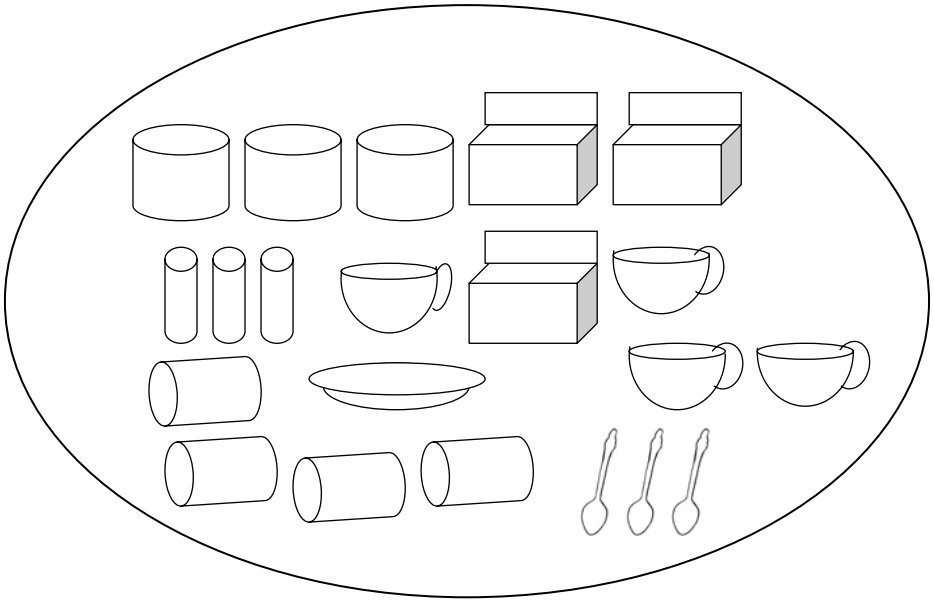
Outcome

Identify a subset.
Form subsets from the main set and vice versa.
Name the subsets.

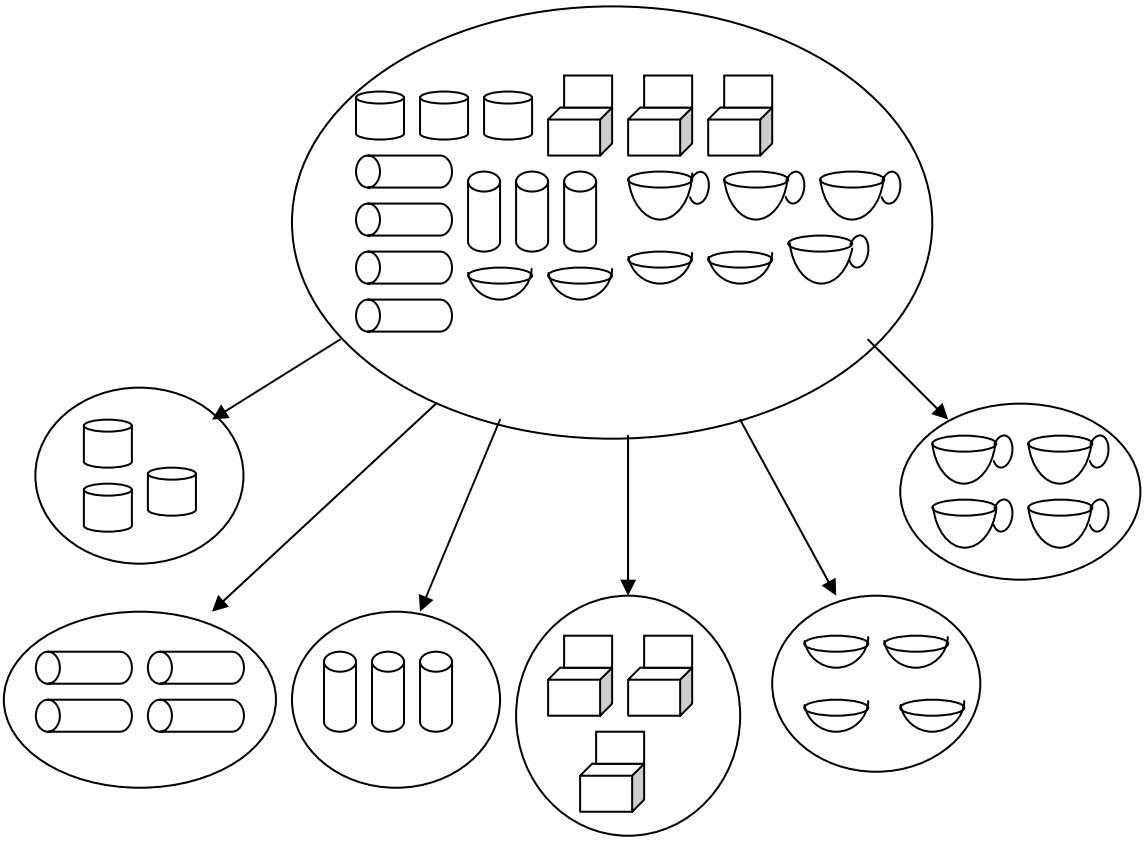
Teaching Aids

Teaching for Understanding

Draw a set with different kinds of elements such as this:



Explain that the set contains different kinds of objects. From the big set, small sets can be made, such as a set of cups, a set of bottles etc. These small sets are called subsets. See the example on the next page.



Allow children to name each subset and to state how many elements each subset has.

Group Work

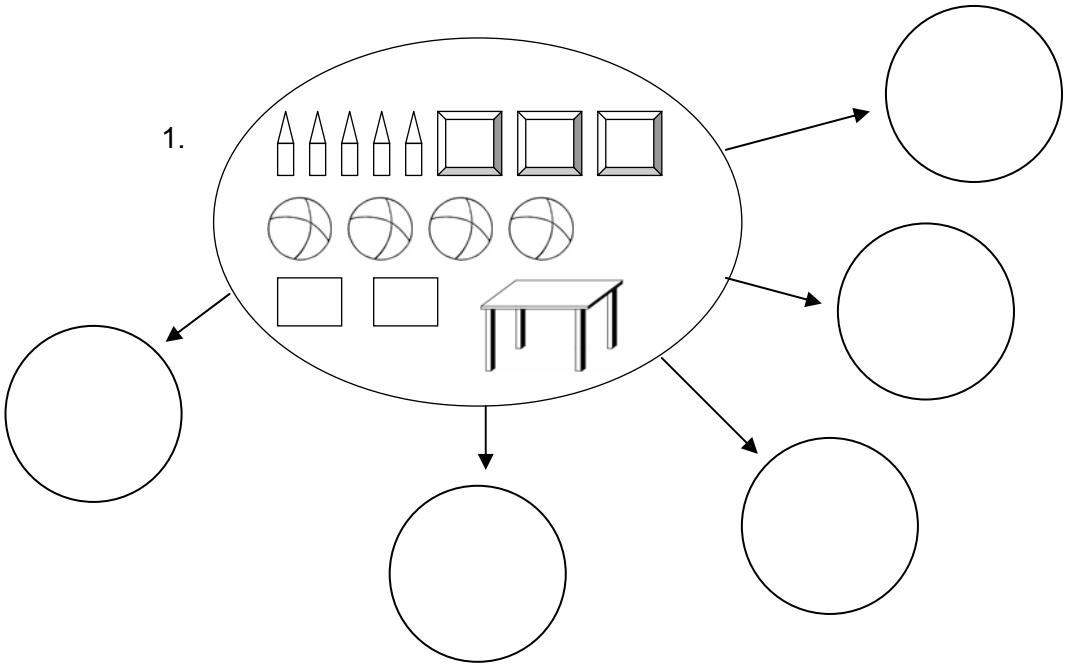
Put children into groups of five or six.
Each group forms a big set from the things they can find in the classroom.

Then they make subsets from the main set.
Move around to see that each group is doing the right thing.

Individual Application

Draw subsets from the main set.

1.



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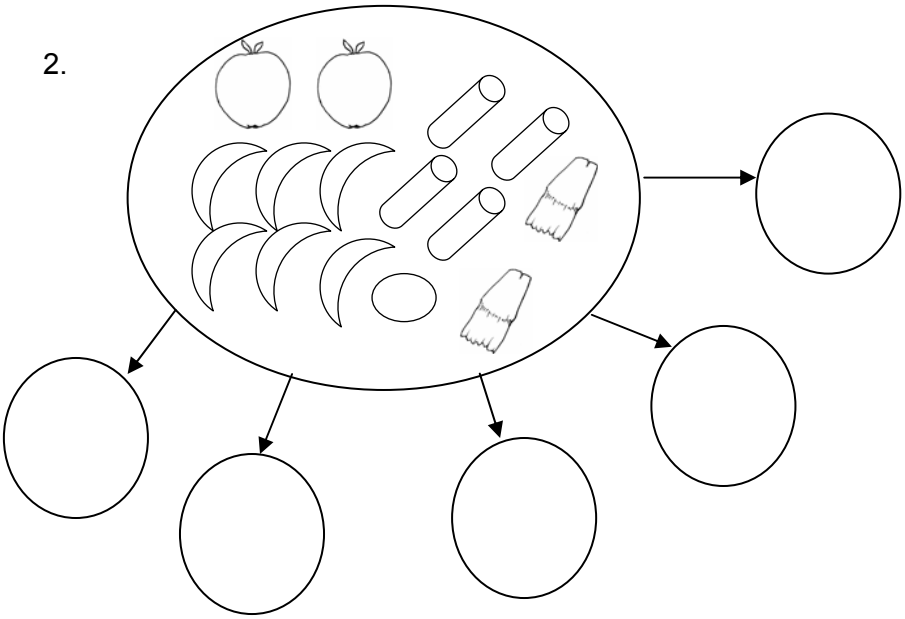
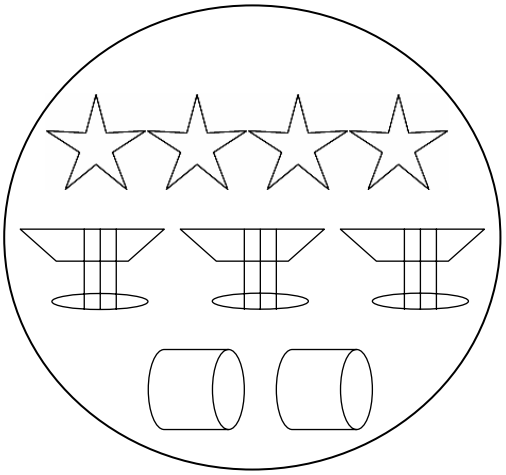
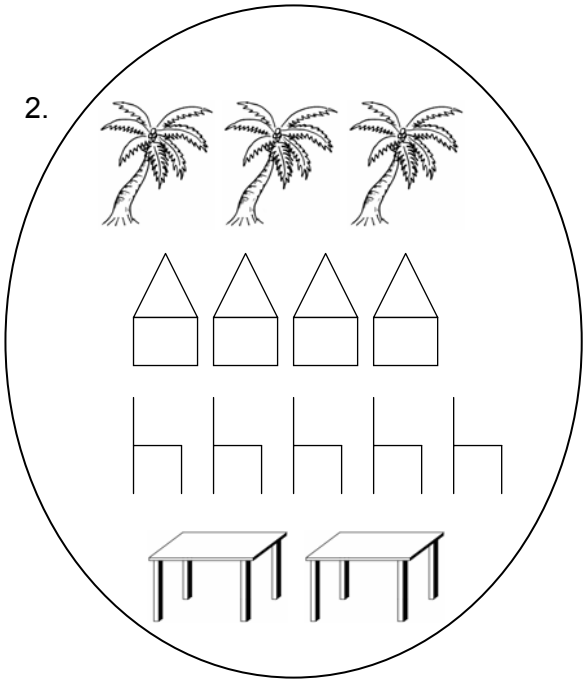


How many subsets can be made from these main sets?

1.



2.



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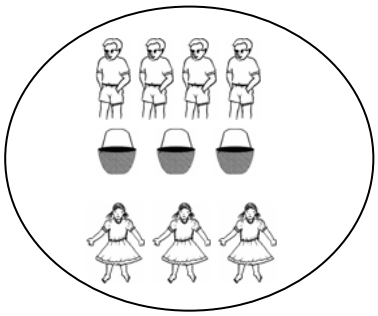


Lesson 8: More Work on a Subset

Outcome

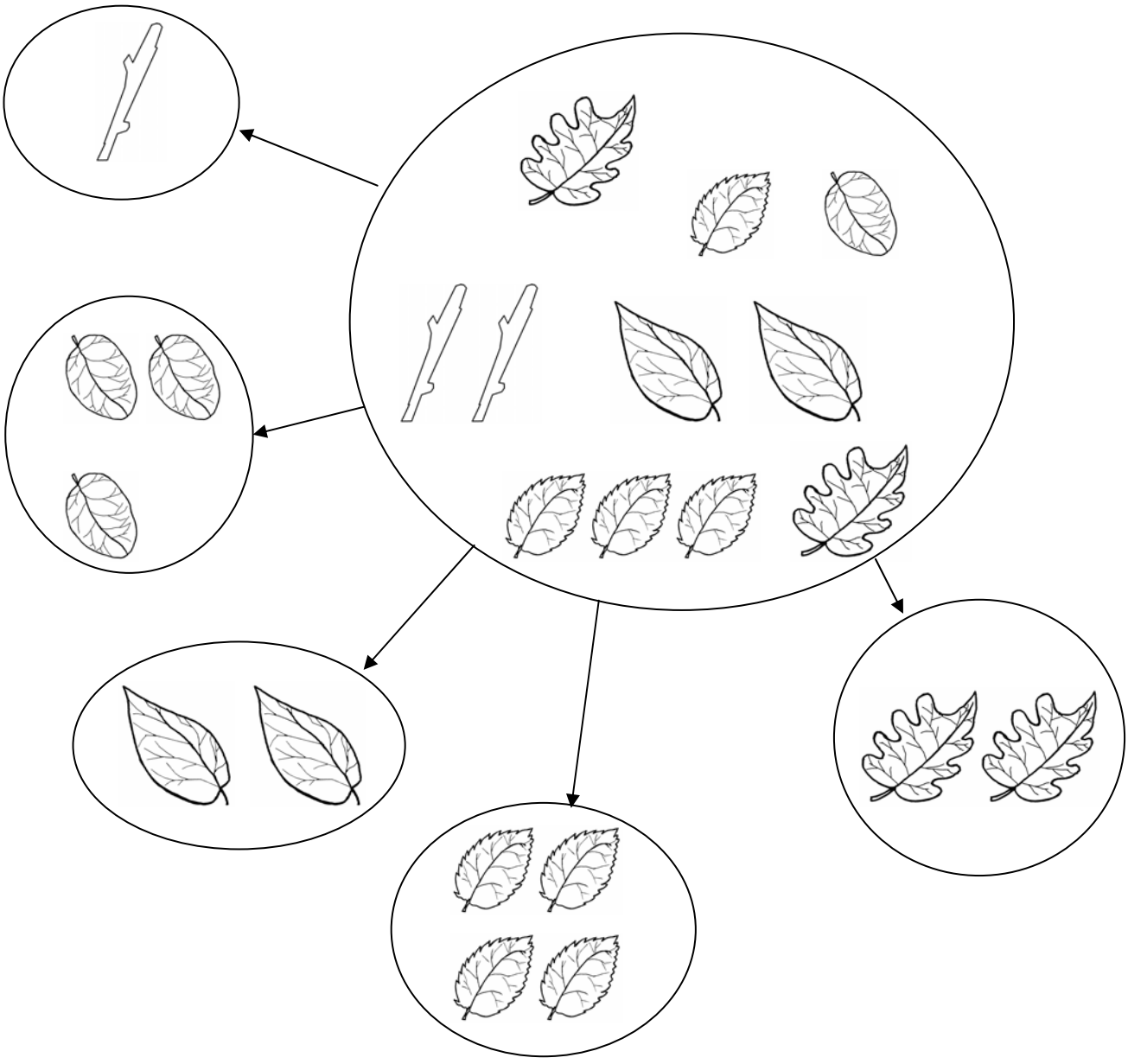
Identify a subset.
Form subsets from the main set and vice versa.
Name subsets.

Teaching Aids

Leaves, string

Teaching for Understanding

Ask five children to go outside and each collect some different kinds of leaves. Put the leaves together on the table and put string around them to make a set. Ask children to go to the table and make a subset each from the main set. Ask, How many subsets are there altogether ? Name each subset. For example:



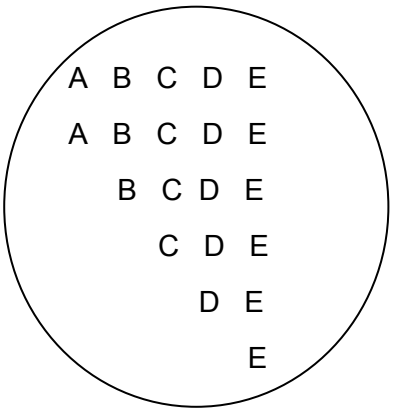
Group Work

Put children in groups of five or six.
Each group makes one main set and its subsets on a chart.

One group member presents the group work.
Display work.

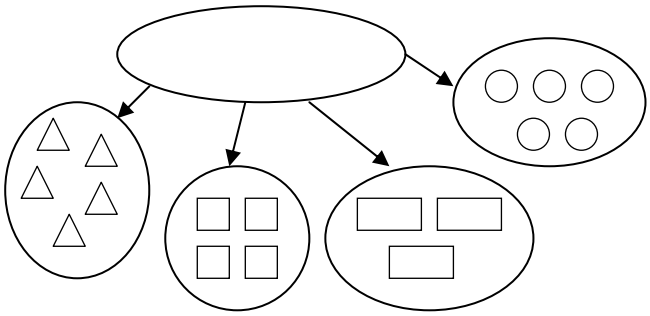
Individual Application

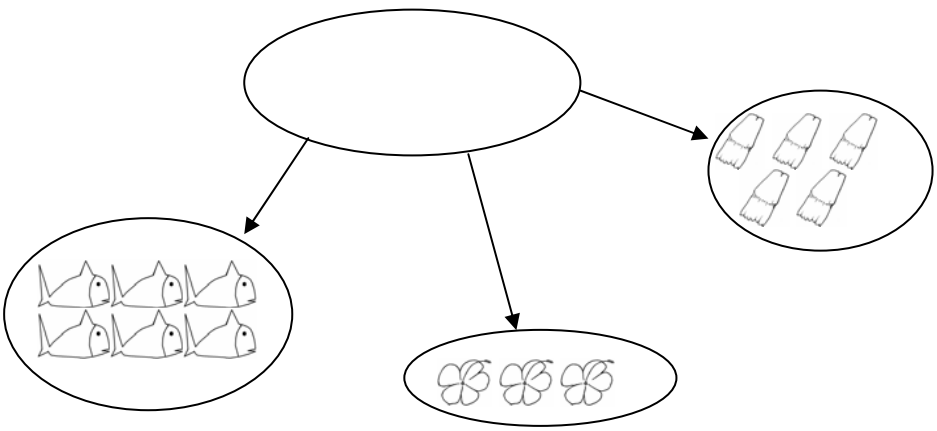
1. Draw subsets from this main set.



Additional Exercise

2. Draw the main set from the following subsets.





Lesson 9: Equivalent Sets

Outcome

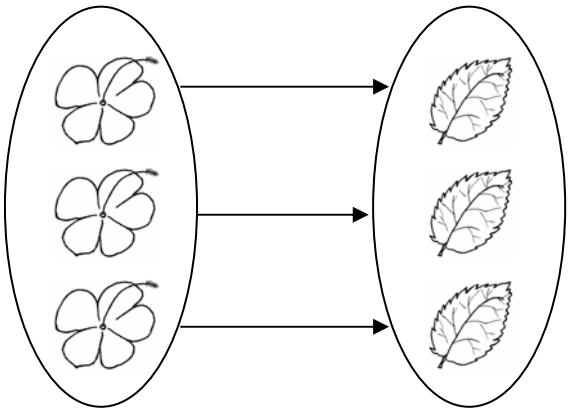
Define equivalent sets.
State whether the sets are equivalent or not.
Produce equivalent sets.

Teaching Aids

Objects in the classroom

Teaching for Understanding

Draw two sets on the board with the same elements.
Draw lines from one element to another to prove that the two sets have the same elements. They are equivalent sets. For example:



Group Work

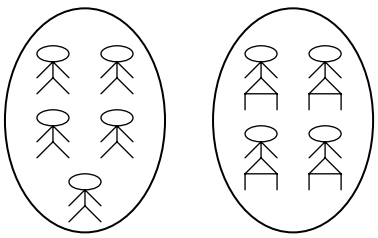
Put children into groups of five.
Each group collects objects from the classroom and forms two sets which are equivalent. They will be able to explain why the sets are equivalent.

Draw the pictures of the two sets on a chart.
Display the work.

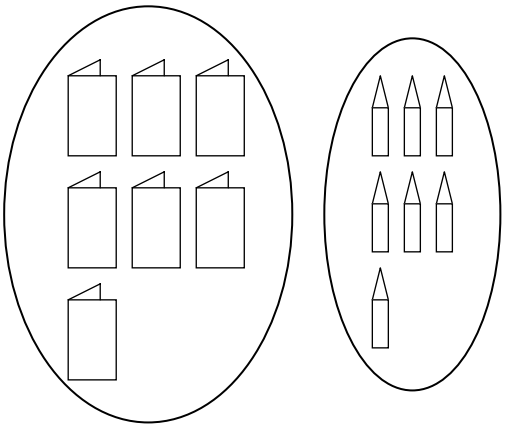
Individual Application

Match the elements of the two sets by drawing a line to see whether they are equivalent or not.

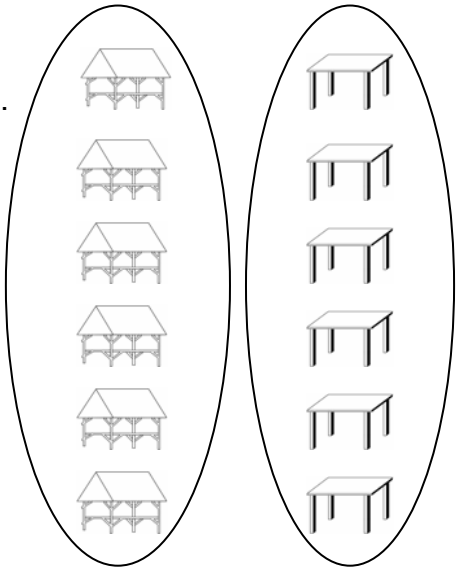
1.



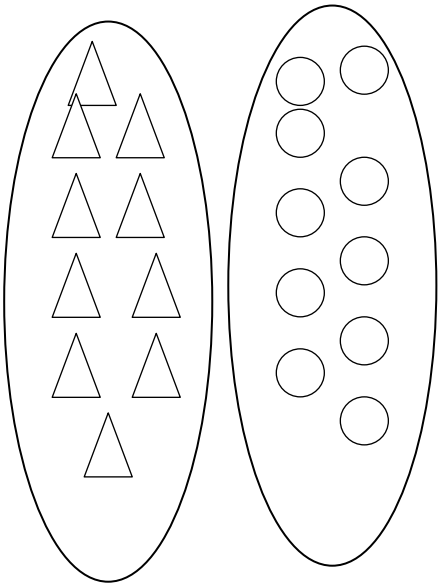
2



3.



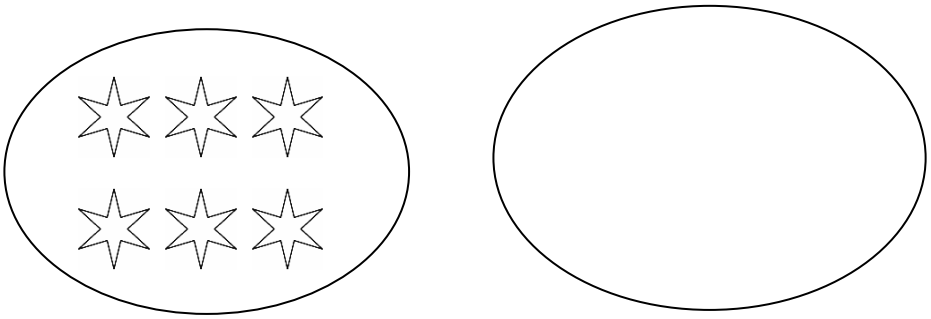
4.



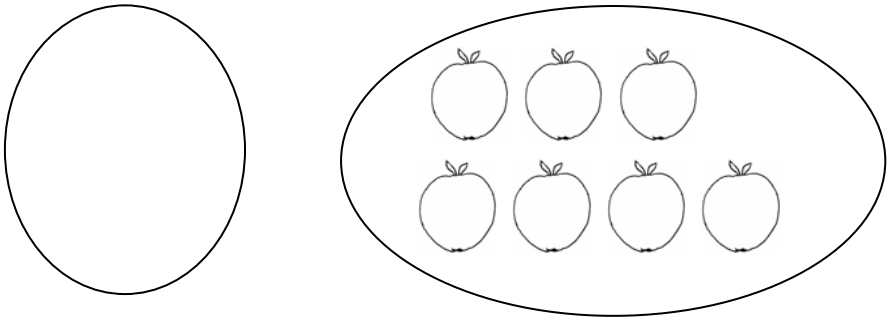
Additional Exercise

Fill in the second set to make them equivalent.

1.



2.



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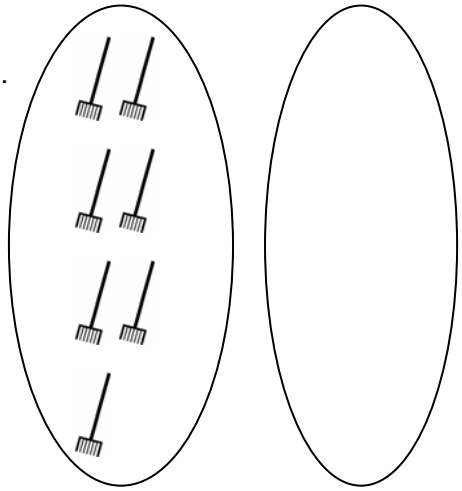

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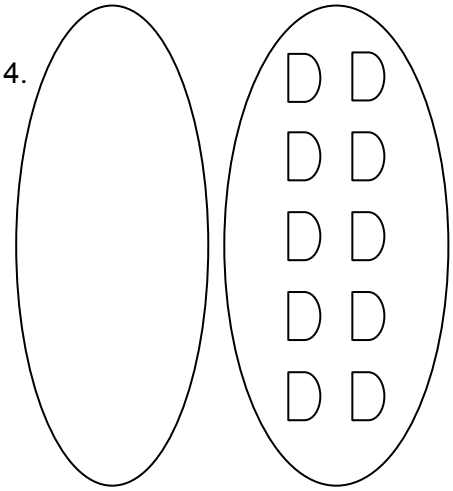


Lesson 10: More Work on Equivalent Sets

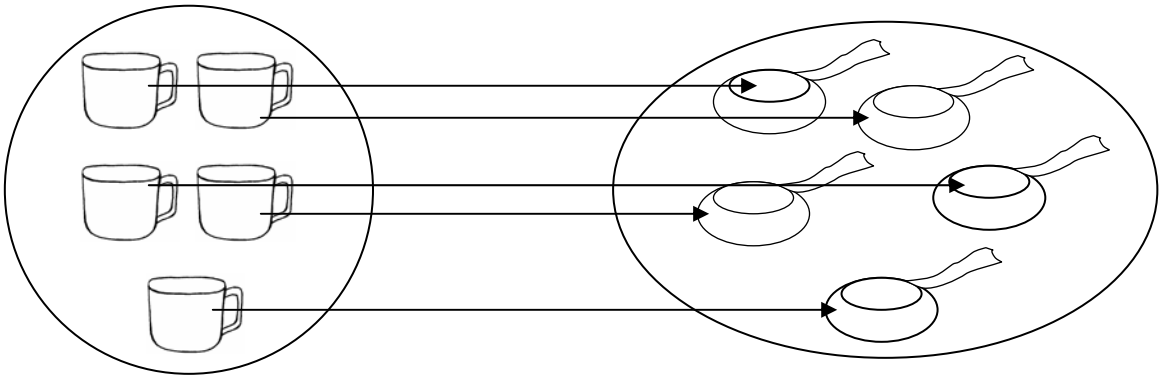
Outcome

Define and make equivalent sets more confidently.

Teaching Aids

Teaching for Understanding

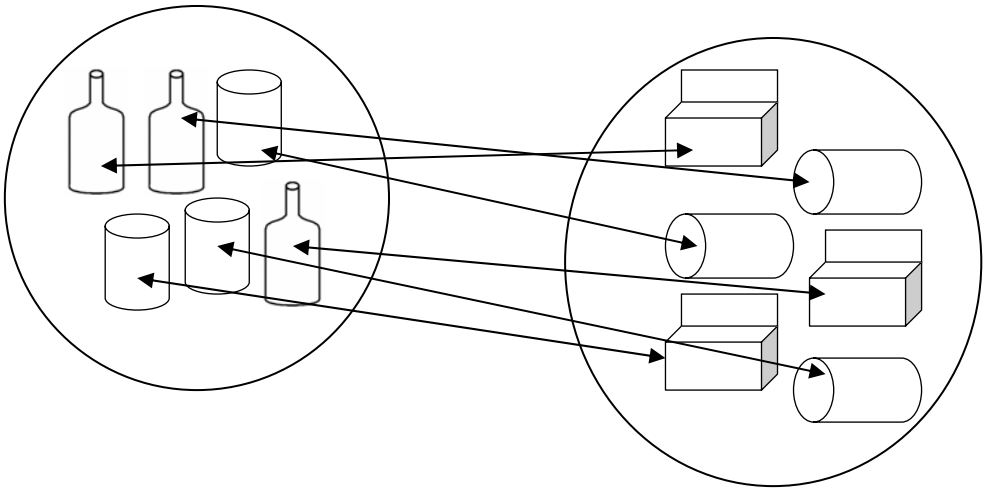
Draw two sets on the blackboard with equal elements as in the example below.



Explain that the two sets are equivalent because they have equal numbers of elements.

Group Work

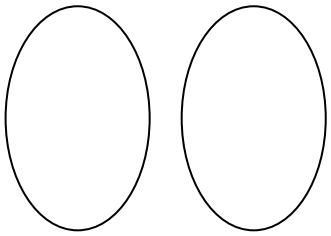
In groups of five or six, children make two sets with equal numbers of elements using objects inside and outside the classroom.
Then they draw the sets on the chart and display the work. For example :

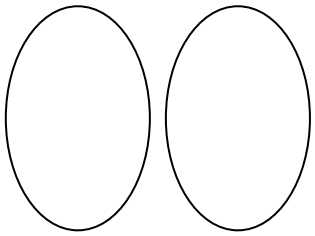


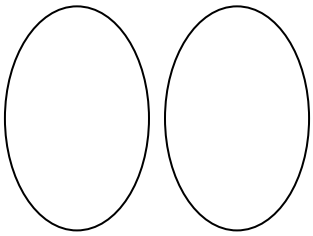
Children match the elements of the two sets to ensure that the sets are equivalent.

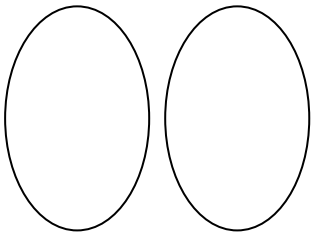
Individual Application

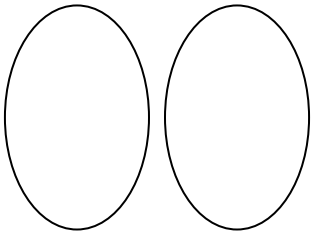
Fill in the following sets to show that they are equivalent.

1. 

2. 

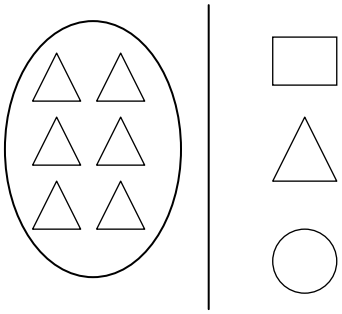
3. 

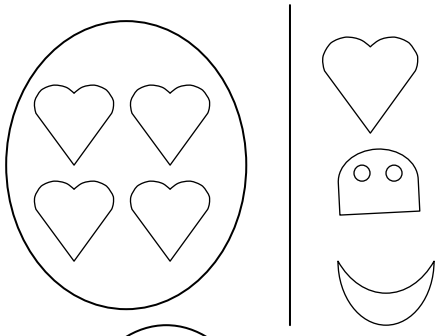
4. 

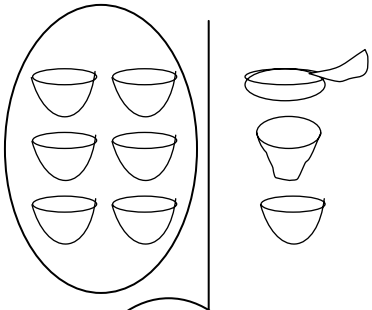
5. 

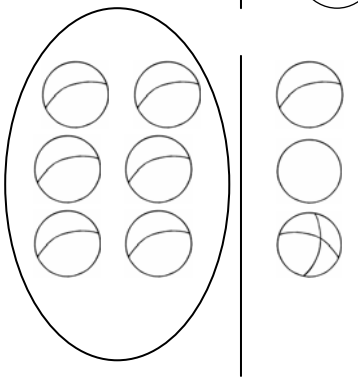
Additional Exercise

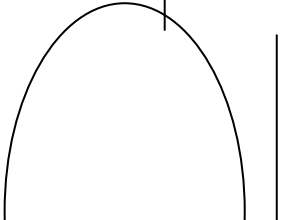
Circle the picture which is equivalent to the elements.

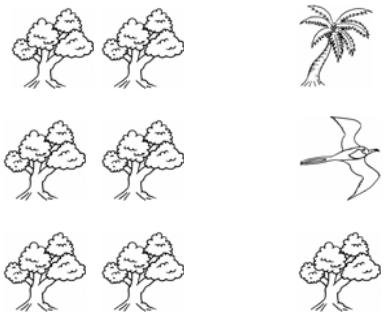
1. 

2. 

3. 

4. 

5. 



Lesson 11: Number of Elements in a Set

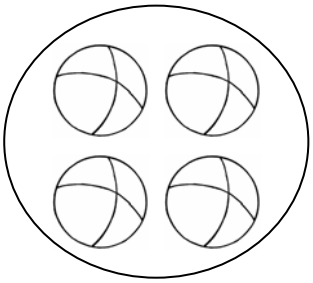
Outcome

Identify elements of a set.
Write the correct number of the elements in a set.

Teaching Aids

Teaching for Understanding

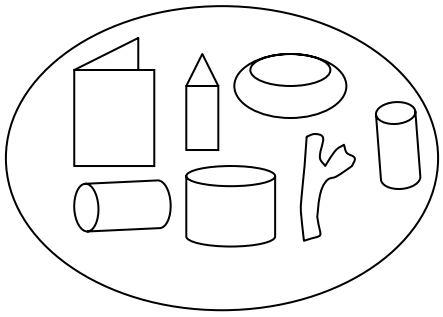
Draw this set on the blackboard.



Ask, What are the elements of this set? How many elements are there? Write the figure 4 below the set. Explain that 4 is the number of elements in the set. Do two or more sets together with the children.

Group Work

In groups of five or six, children form a set with whatever things they can find in the classroom. They draw their set on the chart and write the number of elements. For example :

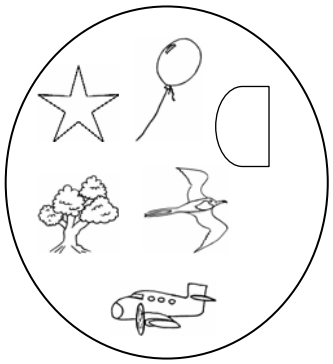


7

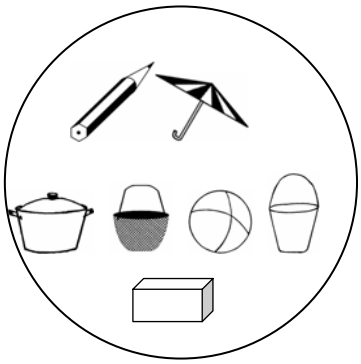
Individual Application

Write the number of elements in each of the following sets.

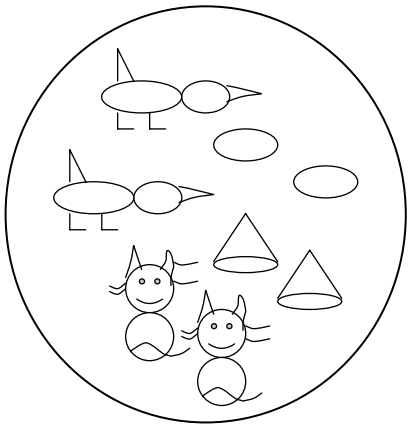
1.



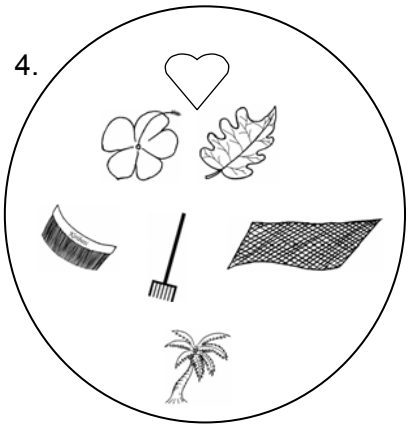
2.



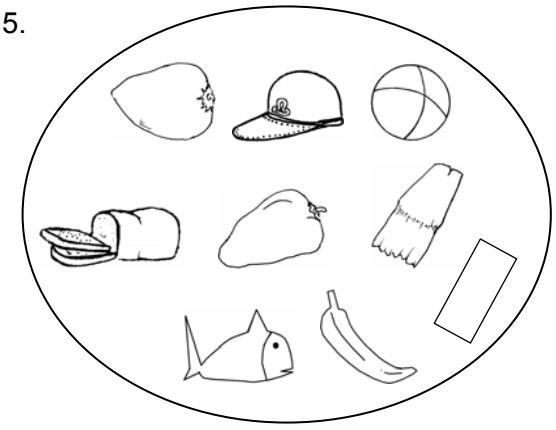
3.



4.

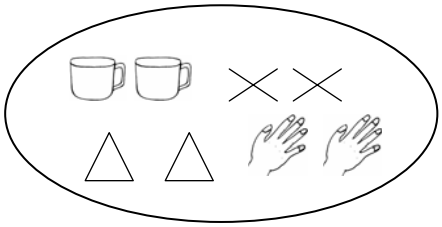


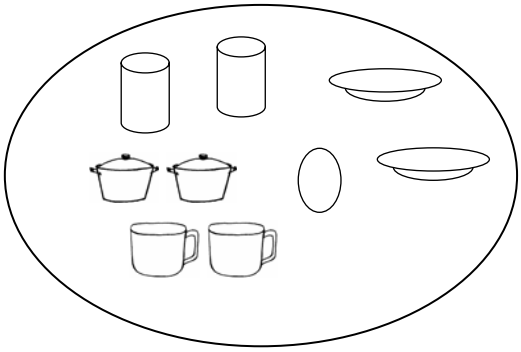
5.



Additional Exercise

Match the set with a correct number of elements.





Ane, Ata, Ene,
Eram, Ioio, Ieie.

Auti, aia, ika,
kie, oi, ie, kai.

6

8

7

9

Lesson 12: More Work on the Number of Elements in a Set

Outcome

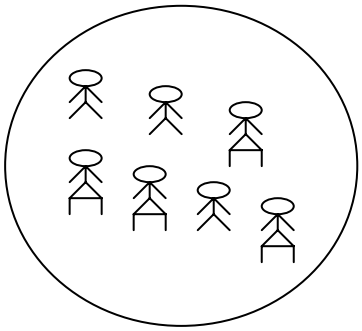
State the number of elements of a set.
Write a correct number.

Teaching Aids

Sheet of paper

Teaching for Understanding

Draw a big circle with a piece of chalk on the floor. Ask for volunteers to come to the front and stand in the circle. What name can we give this set? How many elements are there in the set? Count the number of children in the set. Write the number on the blackboard. Draw the set beside the number. It will look like this :



7

Group Work

Put children into groups of five or six.
Provide each group with a sheet of paper.
Groups draw one big set with elements of between 10 and 20.
They write the number of the elements below the set.
Display the work.

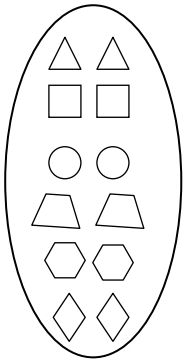
Individual Application

Draw the following sets.

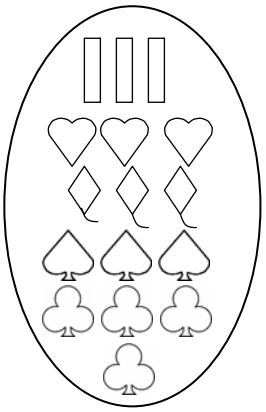
1. Set K = 16
2. Set R = 19
3. Set W = 18
4. Set O = 20
5. Set T = 15

Additional Exercise

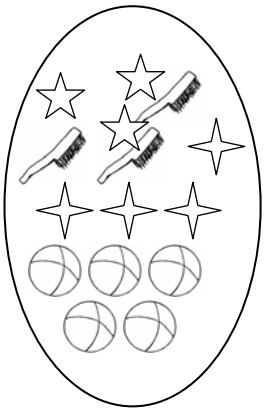
Arrange these sets according to the number of elements (smallest to biggest).

1. 

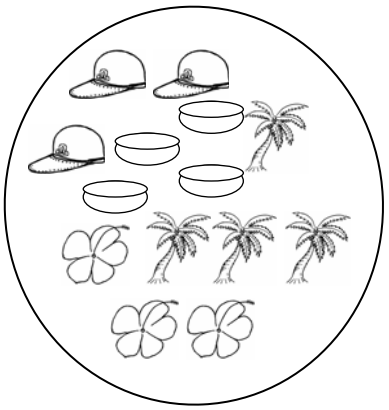
Set A = 12

2. 

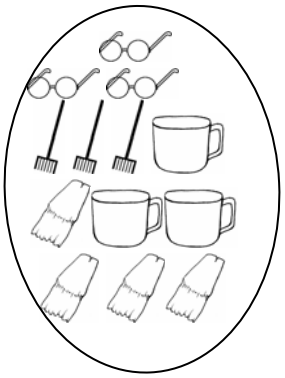
Set U = 16

3. 

Set A = 15

4. 

Set M = 14

5. 

Set E = 13

Lesson 13: Empty Sets

Outcome

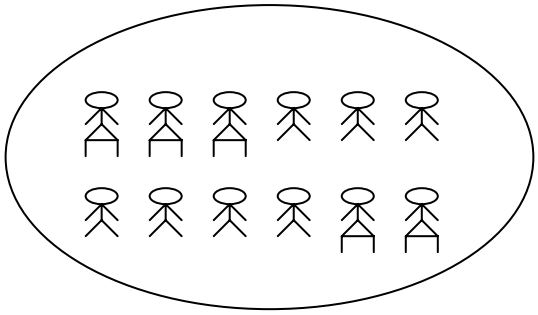
Identify an empty set.
Form subsets leaving the main set as an empty set.
Fill up the main set (empty set) from the subsets leaving the subsets empty.

Teaching Aids

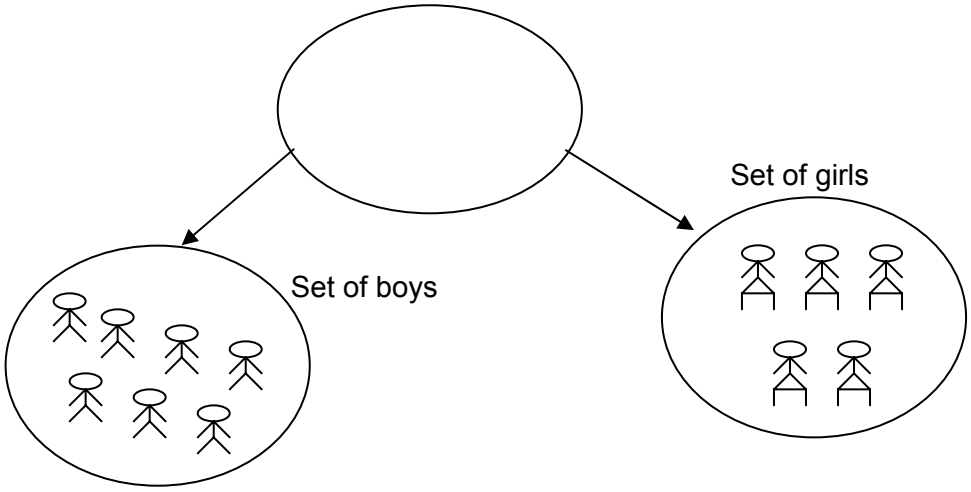
Charts, crayons/colour pencils

Teaching for Understanding

Draw a big circle on the blackboard with no elements. Ask, How many elements has the set? Emphasise the point of an empty set, that is, it is a set with nothing in it. Then, draw a picture of twelve children in the empty set. For example :



Ask children to form subsets from the main set above, as below.



Point out that the main set has now become an empty set.

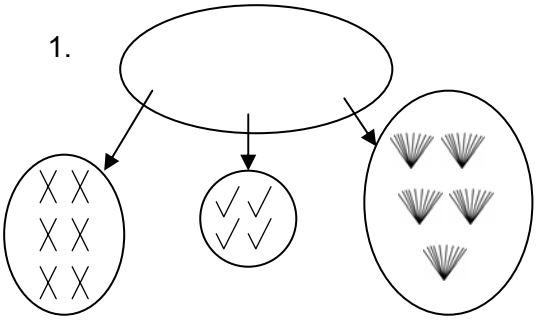
Group Work

Put the children in groups of five or six to do the following.
Draw a main set or big set on a chart
Break the main set into subsets, as demonstrated above.
Colour the empty set.
Display the group work.

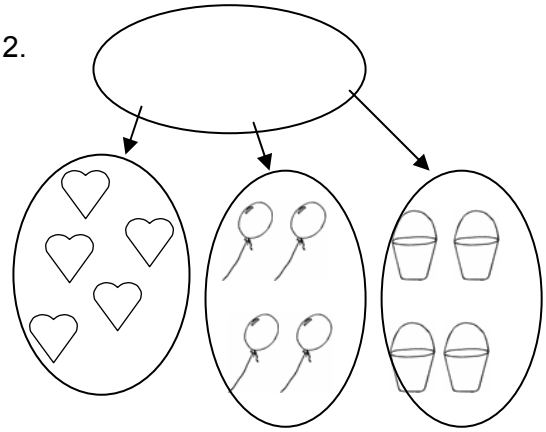
Individual Application

Fill up the main set from the subsets.

1.



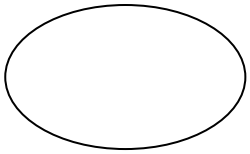
2.



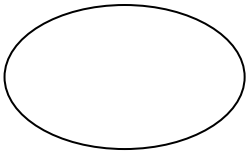
Additional Exercise

Fill these empty sets with the objects written beside them.

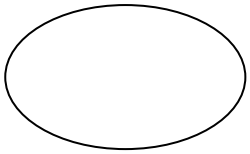
12 leaves



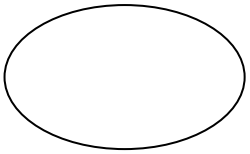
8 bottles



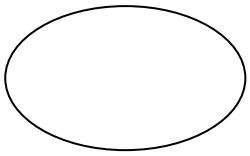
10 fruits



17 buns



9 balls



Lesson 14: More Work on Empty Sets

Outcome

State what is meant by an empty set.
Draw an empty set.

Teaching Aids

Teaching for Understanding

Draw an empty set on the board. Ask children, What is this? Then ask volunteers one at a time to draw a picture of school material. Explain that an empty set has become now a set of school materials.

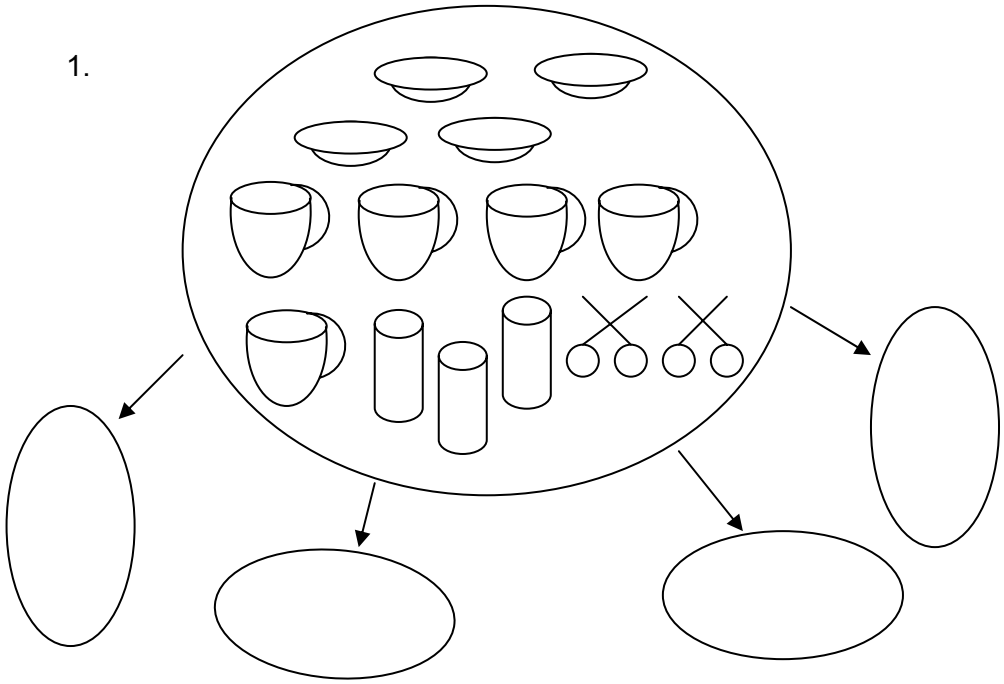
Group Work

In groups of five or six, children draw an empty set on a chart.
Each group member draws whatever elements he/she would like to include.
Colour the elements and display the work.

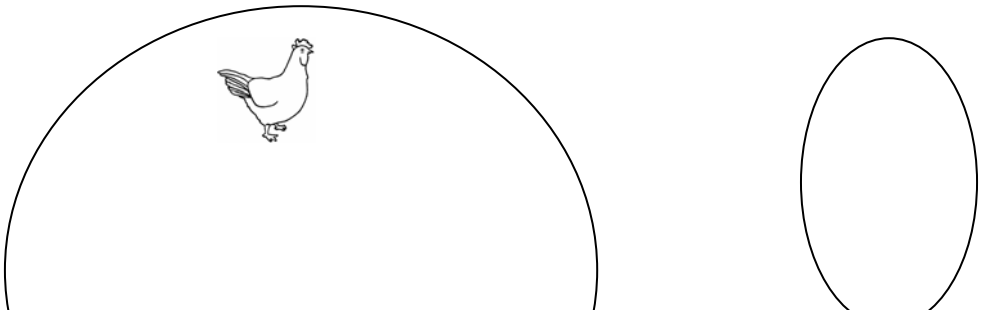
Individual Application

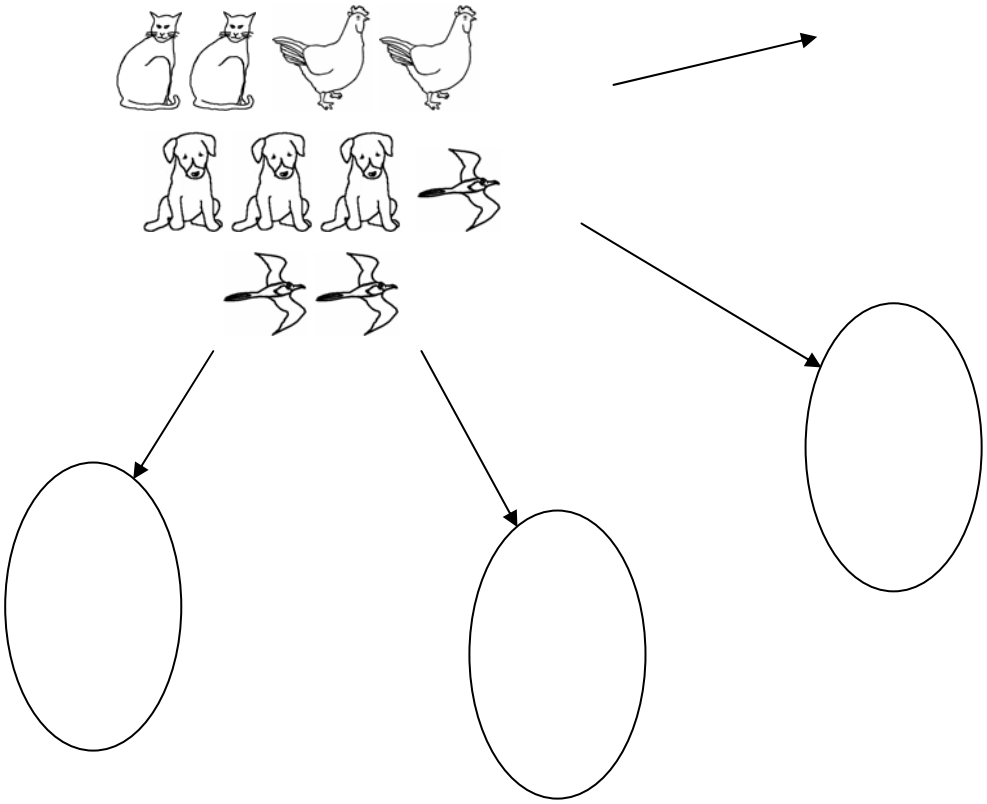
Fill the subsets (empty sets) from the elements of the main set.

1.



2.

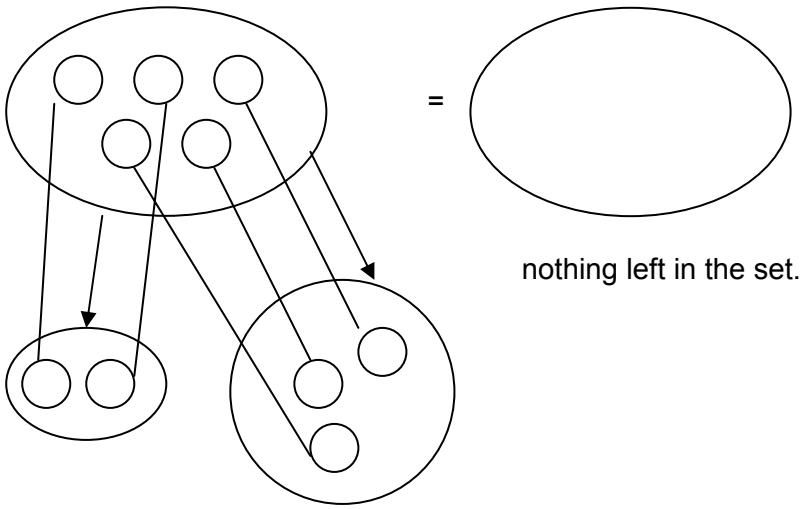




Additional Exercise

Illustrate these problems involving sets. For example :

There were five marbles in a set. Three were lost and two were borrowed by a little girl. How many marbles were left in the set ?



nothing left in the set.

1. There were 8 pencils in a set. The teacher gave 5 to the children and 3 were lost. How many pencils were left in the set ?

2. There were 6 eggs in a set. The cat ate 4 and 2 were broken. How many eggs were left in a set ?

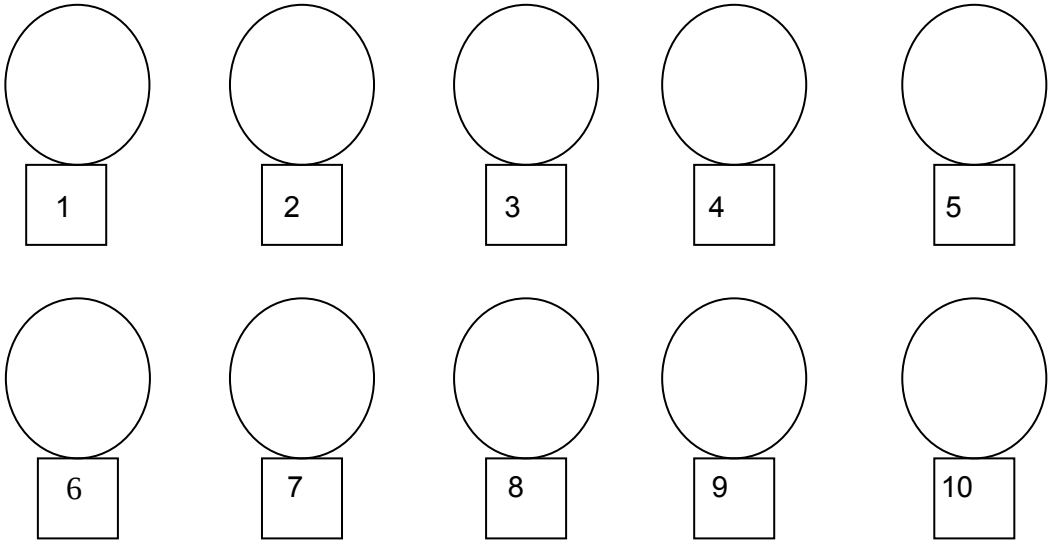
Lesson 15 : Assessment

Group Work

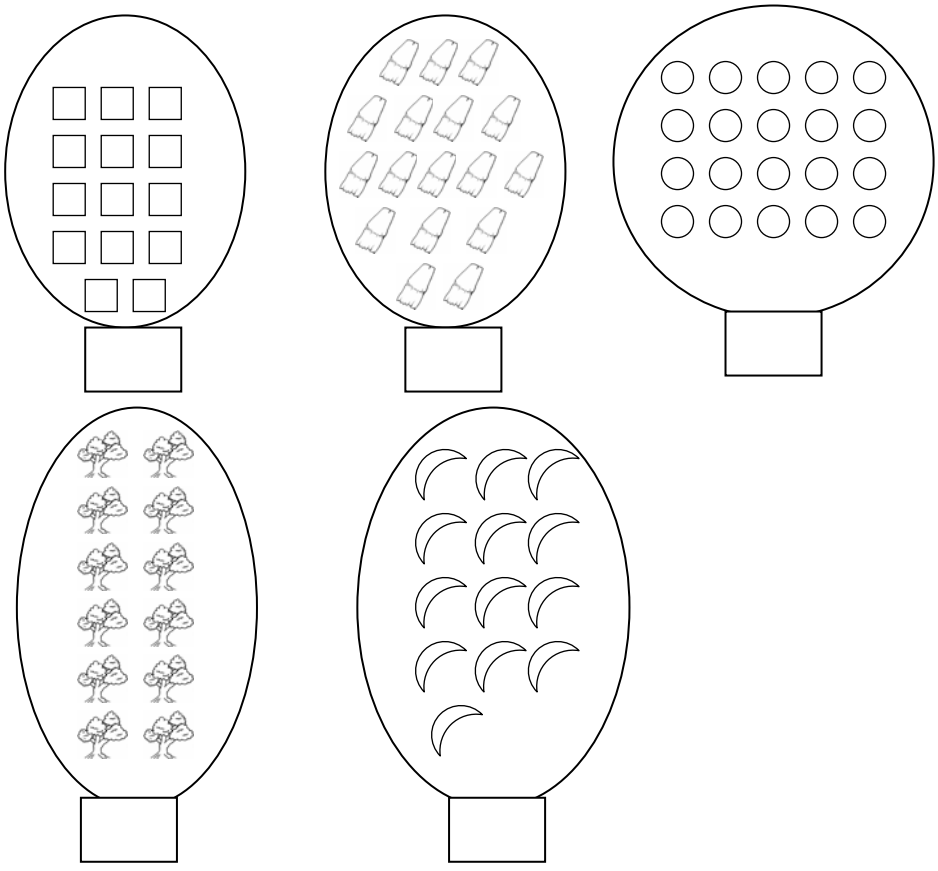
In groups of five or six, children draw two equivalent sets. Draw lines from one element to another to show the two equal elements.

Individual Application

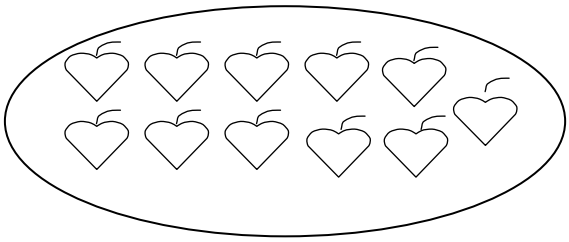
1. Draw pictures for the following sets.



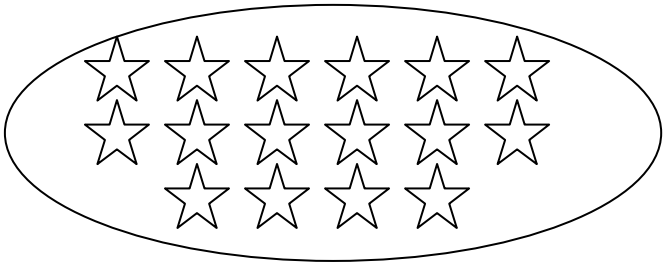
2. Write a number in the box.



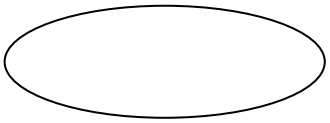
2. Match a set with the number of its elements.



18



19



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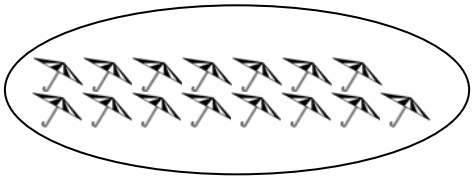
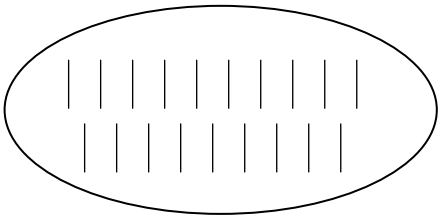
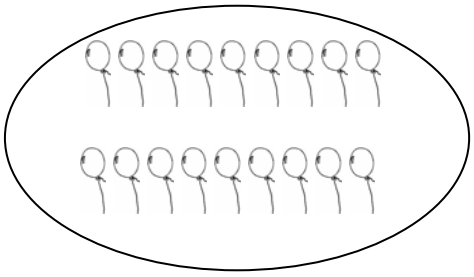


16



11



15

UNIT 3: SHAPES

Lesson 1: Same and Different Patterns

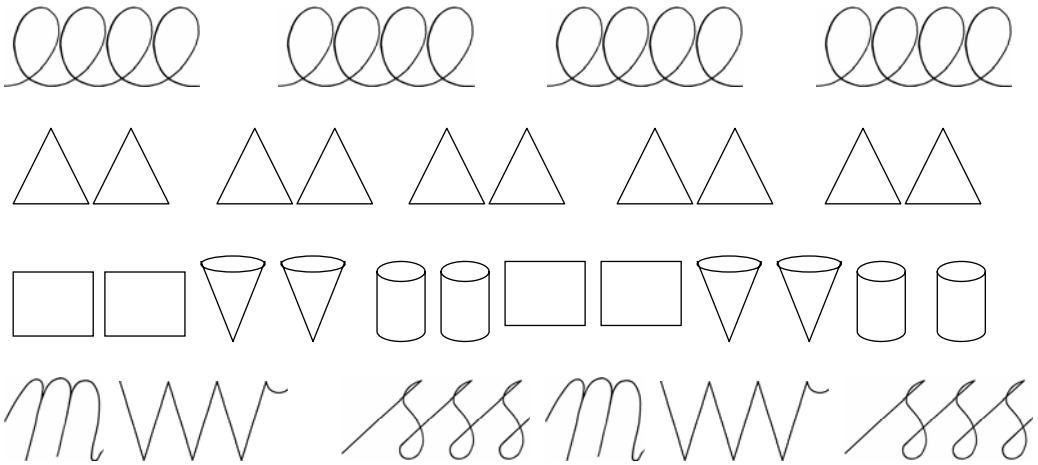
Outcome

Identify patterns that are the same.
Identify patterns that are different.
Make patterns of their own.

Teaching Aids

Teaching for Understanding

Draw these patterns on the blackboard.



Children study the patterns then state which ones are the same and which ones are different. Children explain their findings.

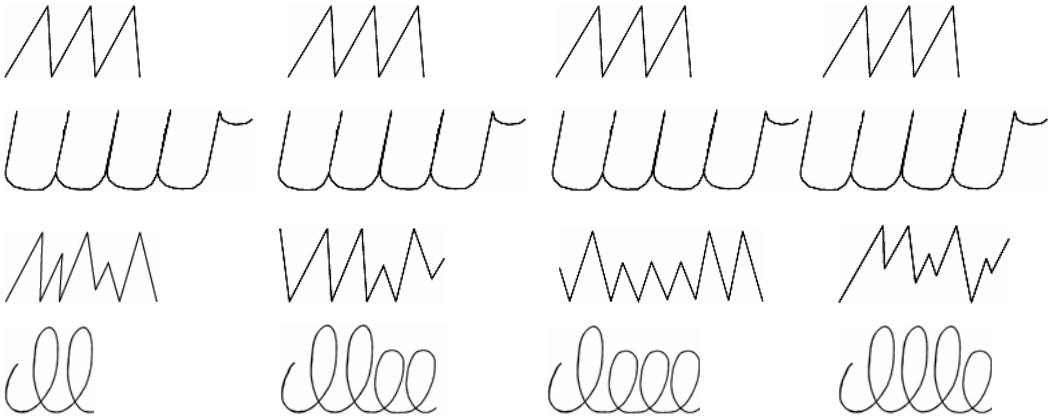
Group Work

In groups of five or six, children prepare two patterns that are the same and two which are different. One group member presents the group's work to the class.

Display group work.

Individual Application

Copy these patterns into your book.



Additional Exercise

Make 2 patterns of your own, one which is the same and one which is different.

Lesson 2: Free Activities with Solids

Outcome

Handle various kinds of solids of different sizes.
Talk about objects and their shapes.
Arrange pictures small to big.

Teaching Aids

Blocks, store corner, toys

Teaching for Understanding

Tell children that today they are going to play with blocks, toys in the toy corner, and things in the store corner. Explain that they are going to construct whatever they like from what they can find.

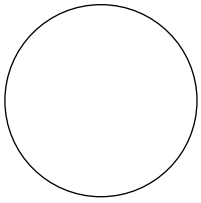
Group Work

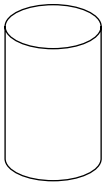
Put children into four groups to do the following activities.

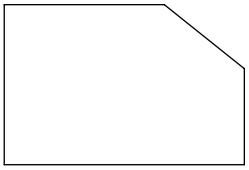
Group 1: Play in the store corner.
Group 2: Play with the building blocks.
Group 3: Play in the toy corner.
Group 4: Play in the sandpit with water, sand and containers.

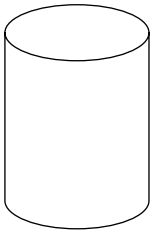
Individual Application

Copy these into your book.

1. 

2. 

3. 

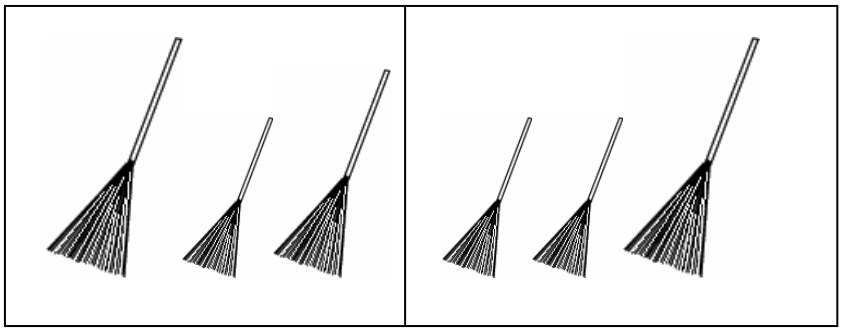
4. 

5.

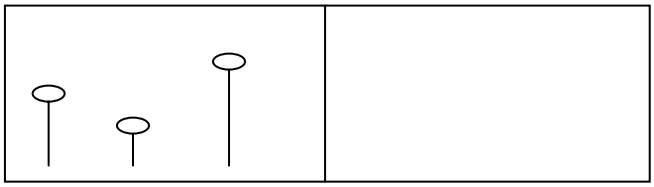
When marking, ask a child to explain what each picture looks like. For example, round, square, long, big.

Additional Exercise

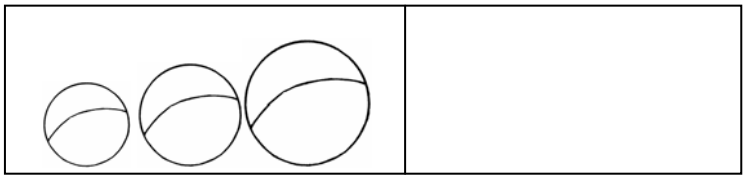
1. Arrange these pictures from smallest to biggest.
   For example:



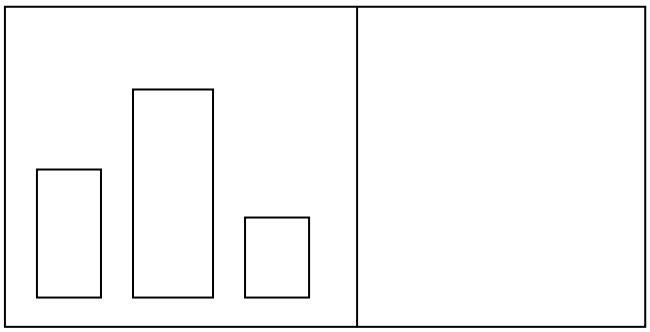
a.



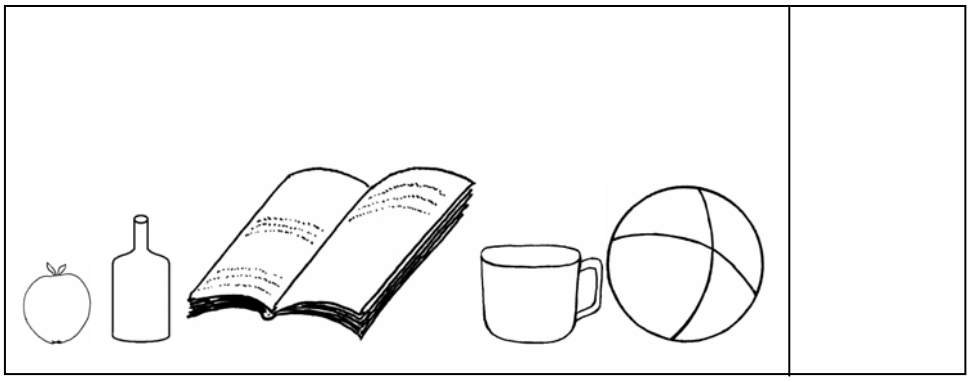
b.



c.



d.



Lesson 3: Inside and Outside an Object

Outcome

Identify the inside and the outside of an object.

Teaching Aids

Boxes, empty tins, lid, pencil, ruler, leaf

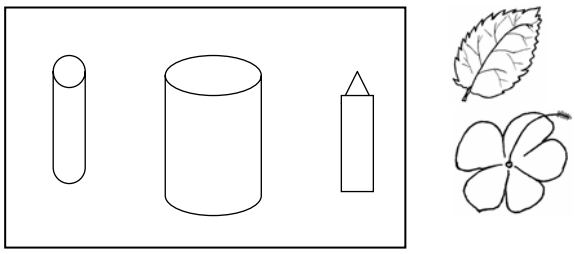
Teaching for Understanding

Put a box on the table where children can all see it. Take a tin, a lid and a pencil and put them inside the box. Take a ruler and a leaf and put them outside the box. Ask, where is the tin ? Where is the pencil ? Where is the ruler ? Where is the leaf ? Clearly point out the meaning of the words **inside** and **outside**. Then tell the children to go outside and take one object each. They return to the classroom and sit in four groups ready for group work.

Group Work

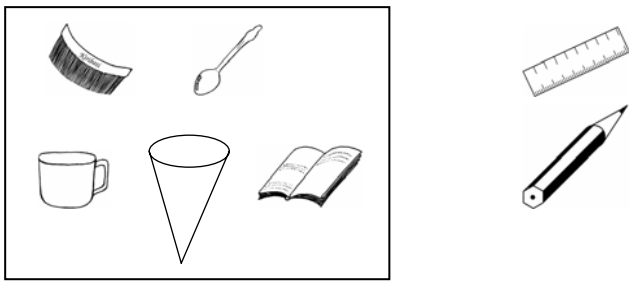
Provide each group with a box and a chart.
Children put their things inside the box.
Go to each group and take out 2 or 3 objects from the box and put them outside.
Then ask each group questions like, What is inside the box ? What is outside the box ? Where is ___ ? and so on.

Then groups draw the picture of their objects. The picture will look something like this :



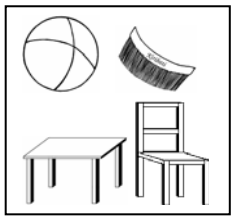
Individual Application

Copy this into your book.



Additional Exercise

Circle the right word.



Example: inside (outside)

1. inside outside

2. inside outside

3. inside outside

4. inside outside

5. inside outside

Lesson 4: Using the Words Before and After

Outcome

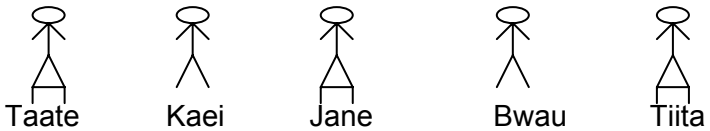
Use the spatial terms before and after correctly.
State whether an event is before or after.

Teaching Aids

Pupils, charts, flash cards words before | after

Teaching for Understanding

Ask 3 girls and 2 boys to come to the front and to stand in a line like this :



Ask who is before Kaei ? Who is after Bwau ? and so on. Show the flash cards before and after and read them out several times with the children.

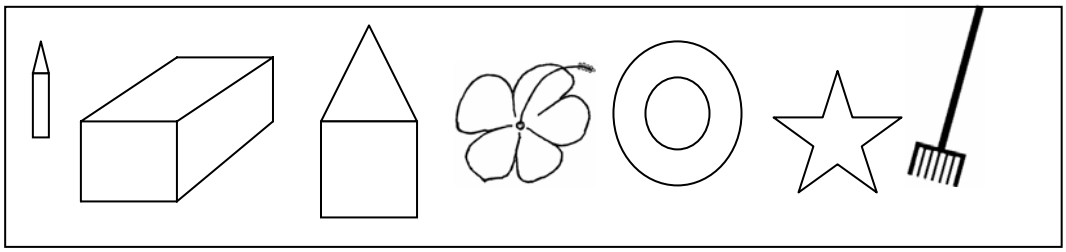
Group Work

In their groups of five or six, children stand in a straight line. One group at a time explains to the others how the group members stand, that is to say, who stands before/after whom.

For example : Taate stands before Kaei.
Kaei stands after Taate and before Jane.
Jane stands after Kaei and before Bwau and so on.

Individual Application

Draw the missing picture in the box.

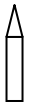


1. before is ☐

2. before is ☐

3. after is ☐

4. after is ☐

5. after  is ☐

Additional Exercise

Put either **before** or **after** in the box.

Example : before

1. ☐

2. ☐

3. ☐

4. ☐

5. ☐

Lesson 5: Using the Words Large and Small

Outcome

State the difference between large and small.

Teaching Aids

1 big tin, 1 small tin, 1 big spoon, 1 small spoon

Teaching for Understanding

Ask four volunteers to come to the front. Give one child a big tin, one child a small tin, one child a big spoon and the last child a small spoon. The child with the big tin stands beside the child with the small tin. The child with the big spoon stands beside the child with the small spoon. Ask, who has a big spoon? Who has a small spoon? Say, Tom's spoon is bigger than Mere's spoon. Mere's spoon is smaller than Tom's spoon. Do the same with the tins.

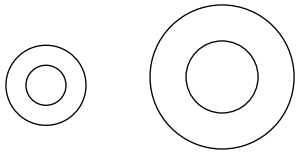
Group Work

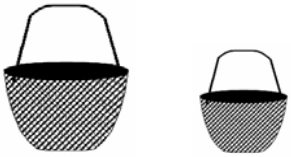
Put the children into four groups
Give each group a box of small and big objects
Each group works together to group their objects into two groups, big and small.
One group member reports to the class on what the group has done.

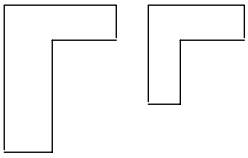
Individual Application

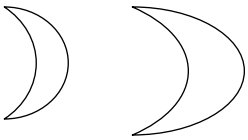
Circle the picture which you think is small. For example :

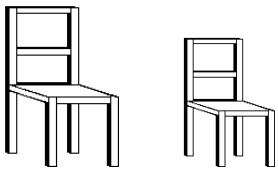
1.

2. 

3. 

4. 

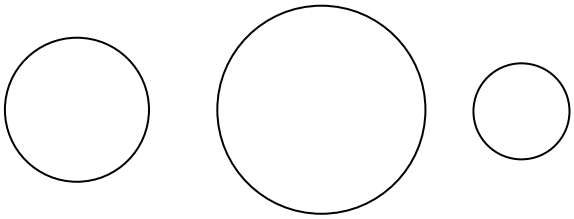
5. 

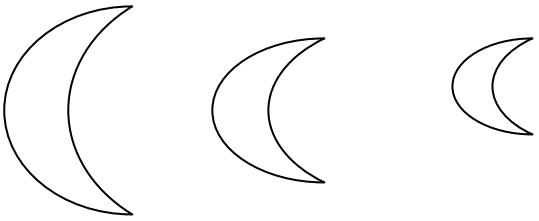
6. 

Additional Exercise

Rearrange the pictures from small to big.

1.

2. 

3. 

Lesson 6: Identifying the Words Near and Far

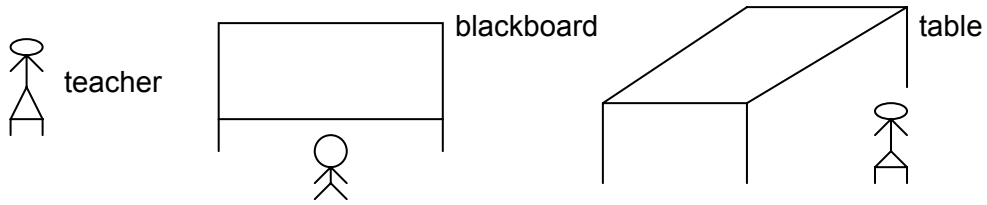
Outcome

State which is near to and which is far from.

Teaching Aids

Teaching for Understanding

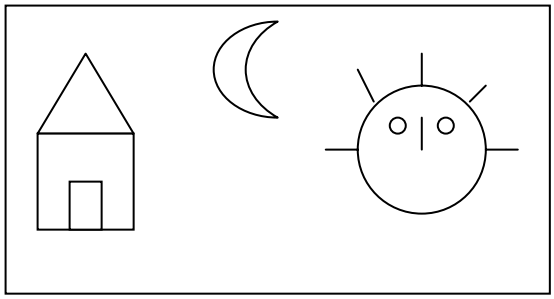
Let the children all sit in the middle.
Choose one to go and stand near the blackboard.
Choose another child to stand near the table.
For example :

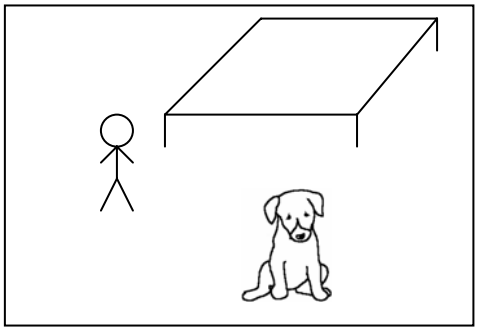


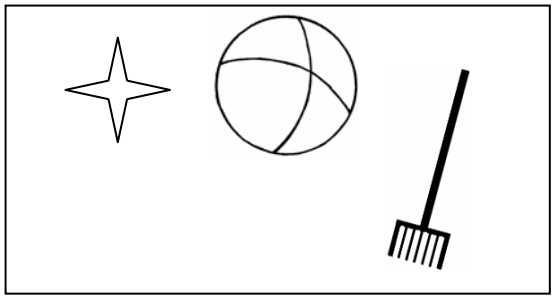
Ask questions like, Who is near to the teacher? Who is far from the teacher?
How do you know ? Explain why.

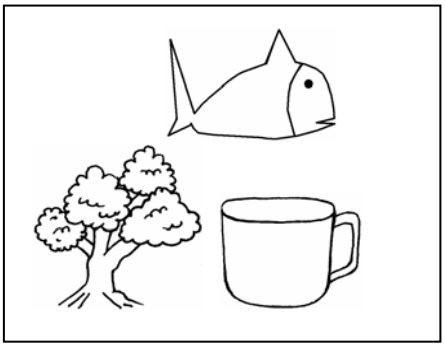
Group Work

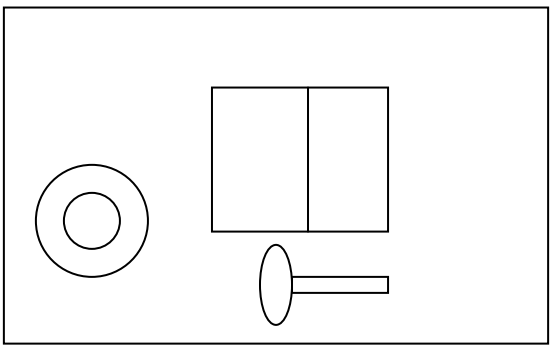
Divide children into five groups.
Give each group a chart of pictures such as follows.







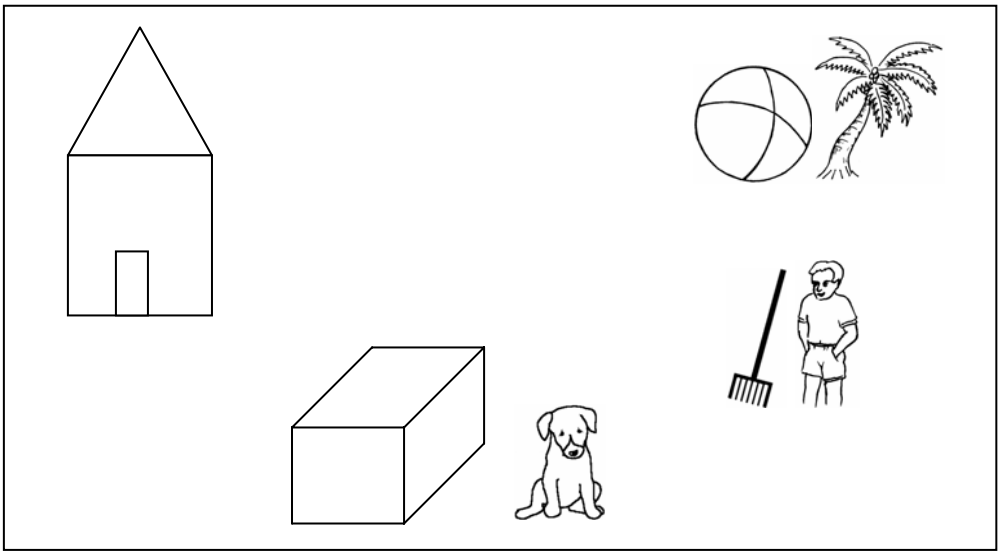




Group members discuss the pictures and prepare a report on what is far from and what is near to another picture.

Individual Application

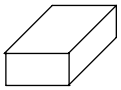
Study the picture below.



Look at the statements and fill in the missing objects.

1. is far from ☐

2. is far from ☐

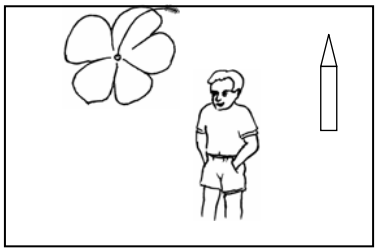
3.  is near the ☐

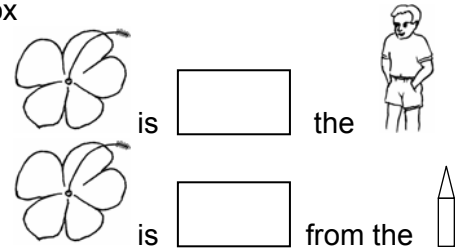
4. is near the ☐

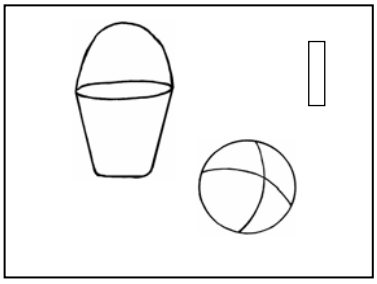
5. is far from ☐

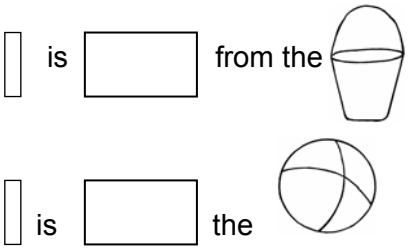
Additional Exercise

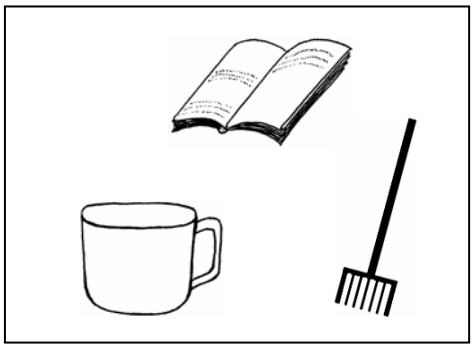
Put either **far from** or **near** in the box

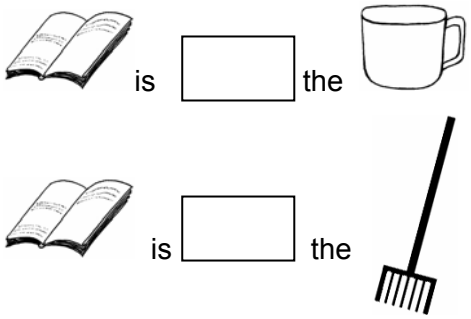
1. 



2. 



3. 



Lesson 7: Circles

Outcome

Identify a circle.
Draw a circle.

Teaching Aids

A ball, chart, colours

Teaching for Understanding

Show a ball to the children. Ask, who can tell me what shape is this? (a circle). Can you name other objects which are circles? Write them on the board. Look around in the classroom and try to find any circle shape, for example : a knob on the door, a surface of a tin and many more. Draw the shape on the board : → ◯
Allow children to say the word **circle** four times.

Group Work

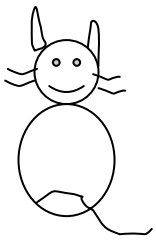
In groups of five or six, children draw one circle each on a chart. Colour the circles and display the group's work.

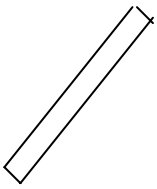
Individual Application

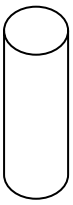
Copy the pictures into your exercise book. Draw a line around each picture which has a circle.

1.

2.

3. 

4. 

5. 

Additional Exercise

Draw any picture you like which has a circle pattern.

Lesson 8: Triangles

Outcome

Identify a triangle.
Draw a circle.

Teaching Aids

Cut-out triangles, charts, colours

Teaching for Understanding

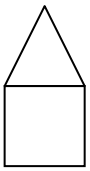
Show a cut-out triangle to the children. Ask, What you call this shape? If they do not know the answer, say the name for them. Draw the shape on the board and allow children to say **triangle** several times. Look around the room and try to find any triangular shape. Explain that a shape which has 3 sides and 3 angles (corners) is called a triangle.

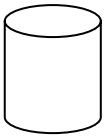
Group Work

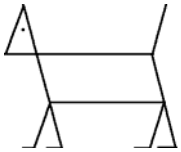
In groups of five or six, children to draw one triangle each on a chart. Colour the triangles and displaythe group's work.

Individual Application

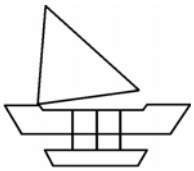
Copy the pictures into your exercise book. Draw a line around each picture which has a triangle.

1. 

2. 

3. 

4.

5. 

Additional Exercise

Draw any picture you like which has a triangular shape.

Lesson 9: Squares

Outcome

Identify a square.
Draw a square.

Teaching Aids

A cut-out square, charts, colours

Teaching for Understanding

As in Lesson 7.
Point out that a shape with four equal sides is called a square. Draw the shape on the board. Pass around the cut-out square for children to measure the four sides to make sure they are all equal.

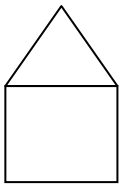
Group Work

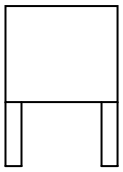
In groups of five or six, children draw one square each on a chart. Colour the squares and display group work.

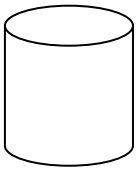
Individual Application

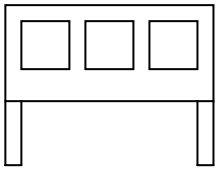
Copy the pictures into your exercise book. Draw a line around each picture which has a square.

1.

2. 

3. 

4. 

5. 

Additional Exercise

Draw any picture you like which has a square.

Lesson 10: Rectangles

Outcome

Identify a rectangle.
Draw a rectangle.

Teaching Aids

Cut out rectangle, charts, colours

Teaching for Understanding

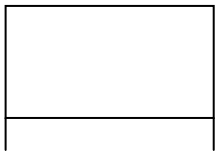
As in Lesson 7
This time, clearly explain that a shape with two opposite side equal, is known as a rectangle.

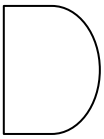
Group Work

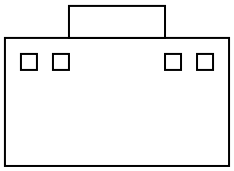
In groups of five or six, children to draw one rectangle each on a chart. Colour the rectangles and display group work.

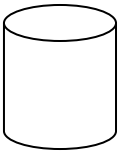
Individual Application

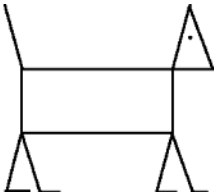
Draw a line around a picture which has a rectangle.

1. 

2. 

3. 

4. 

5. 

Additional Exercise

Draw any picture which has a rectangle. Colour the rectangle.

Lesson 11: More Work on the Four Shapes

Outcome

Identify and draw the four shapes more confidently.

Teaching Aids

Cut-out circles, triangles, squares and rectangles

Teaching for Understanding

Briefly review the four shapes by showing one of the cut-out shapes at a time and children call out the names.

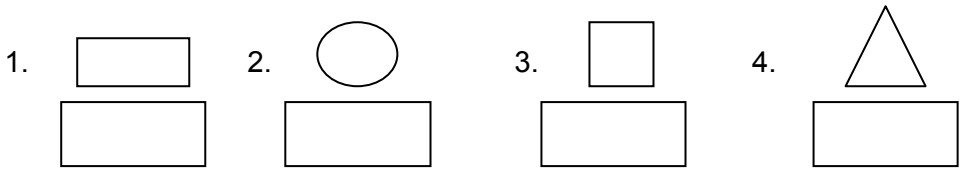
Divide children into two teams to play a game known as 'Look and Say'. Have the four shapes, ○ □ △ ▭ drawn on the board. Two children, one from each team, faces the back. When the blackboard is hit, the two quickly look at the blackboard. Point to one of the shapes. The first child to call out the correct name will get a point for the team. Whoever is beaten will be replaced by another team member. Continue the game until every team member has had a turn.

Group Work

In group of five or more, children to draw the four shapes on the chart. Colour the shapes, write the names beneath each shape and display the work.

Individual Application

Copy the pictures into your book and write down the names in the boxes.



Additional Exercise

Circle the correct name

Example ○ square (circle)

1. △ triangle, rectangle

2. □ circle, square

3. ▭ rectangle, triangle

Lesson 12: Recognising Shapes and Names of Objects

Outcome

Identify a sphere, a cylinder, a cube, a cuboid and a cone.
State that a tin is a cylinder, a ball is a sphere, a box is either a cube or a cuboid and an ice cream cone is a cone.

Teaching Aids

Balls, tins, boxes, ice cream cones or a picture of a cone, chart

Teaching for Understanding

Show a ball to the children. Ask, What shape is this? Explain that a rounded object is a **sphere**. Name other objects that have a sphere shape. Write the name on the board: ◯ **sphere**.

Show a tin to the children. Ask, What shape in this?
Allow children to talk about the tin. Then tell them that an object with a sphere at the two ends is called a cylinder. Write the name and the shape on the board.
cylinder

Let children name other objects which belong to the cylinder group.

Show two boxes, one with equal sides and one with different sides, such as:

cube **cuboid**

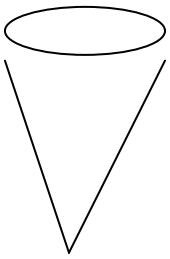
Explain that the one with equal sides is called a cube and the other one is called a cuboid. Discuss the similarities and differences between a cube and a cuboid.

Similarities	Differences
Box	Size

Children may add on to the list.

Show an ice cream cone. For those who do not have access to ice cream cones, make one by bending a piece of card into the correct solid shape. For example:

a cone

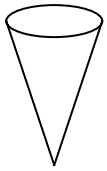


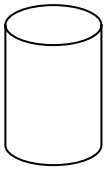
Group Work

In groups of five or six, children draw the five shapes on the chart. Write the names for each shape (sphere, cylinder, cube, cuboid and cone). Colour the pictures and display.

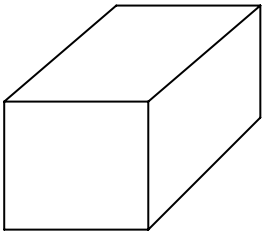
Individual Application

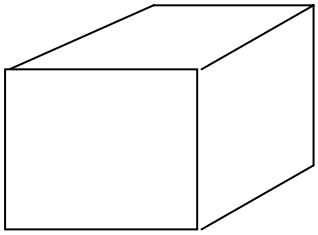
Write the names of these shapes.

1. 

2. 

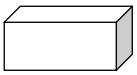
3.

4. 

5. 

Additional Exercise

Draw a line to match the shapes with their names.

1.		cube
2.		cone
3.		cuboid
4.		sphere
5.		cylinder

Lesson 13: Sorting Out Shapes According to Likeness

Outcome

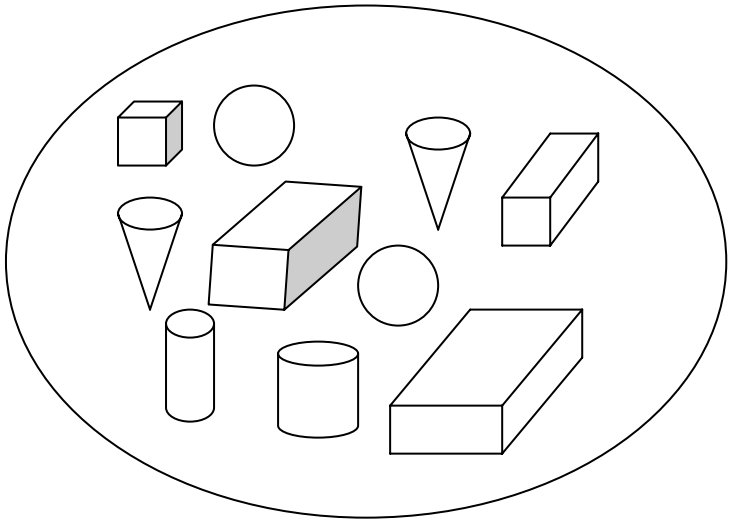
Identify shapes that are similar or look alike.
Group objects according to likeness.

Teaching Aids

Charts

Teaching for Understanding

Draw this set on the blackboard.



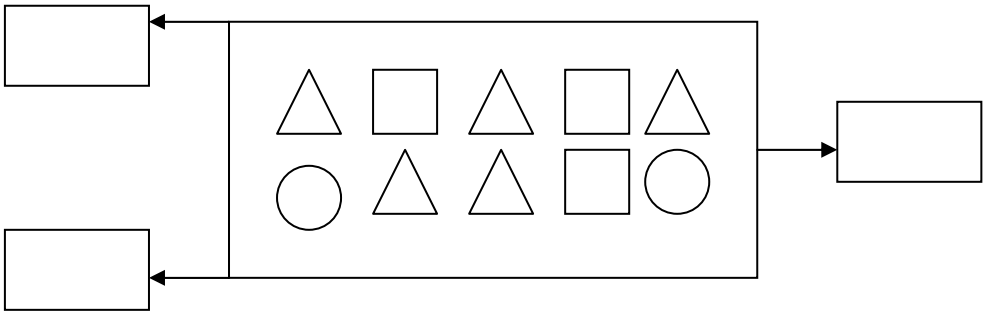
Ask volunteers to come to the front and group these objects according to their likeness.

Group Work

In groups of any size you prefer, children copy the big set on the blackboard onto a chart and break it down into small groups as demonstrated during Teaching for Understanding.
One from each group reports on what the group has done.

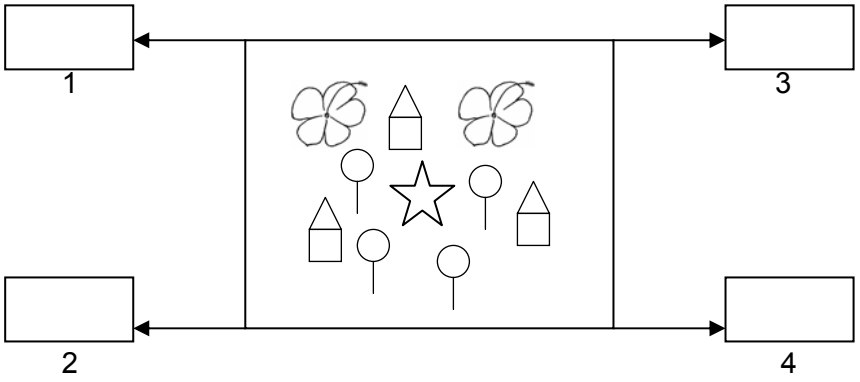
Individual Application

Group these pictures according to their likeness.



Additional Exercise

Share out these pictures according to the numbers written under each box.



Lesson 14: More Work on a Sphere, a Cube, a Cylinder and a Cone

Outcome

Classify the shapes more confidently.

Teaching Aids

Teaching for Understanding

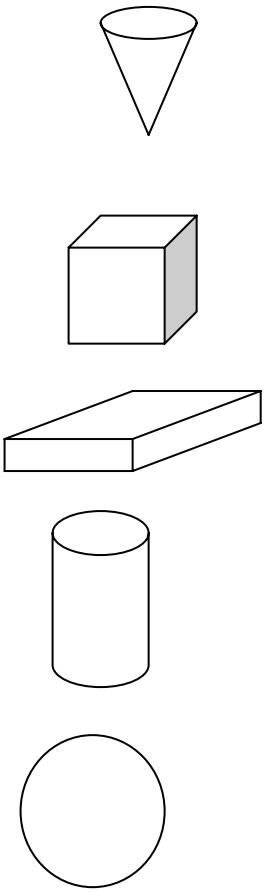
Briefly review the five shapes by asking one child at a time to draw a shape eg : a sphere on the blackboard.

Group Work

In groups of five, children to make a booklet. Each child to draw one shape and write its name. Help each group to staple the five pages together. Write the group members' names on the cover.
Display the booklets.

Individual Application

Match the pictures and the names.



cuboid

cylinder

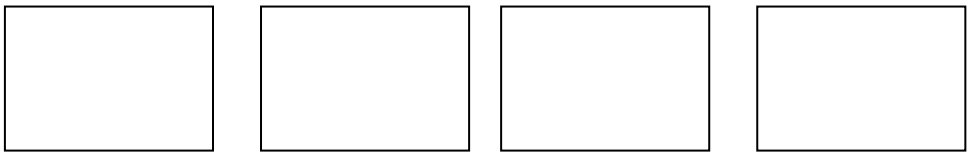
cone

sphere

cube

Additional Exercise

Draw the shapes in the box.



Rectangle Square Circle Triangle

Lesson 15: Assessment

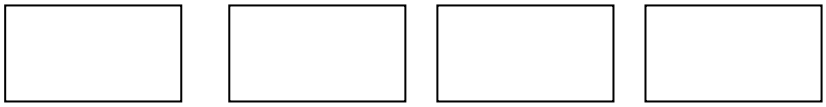
Group Work

In groups of five, children draw the following shapes on a chart.

square, rectangle, cylinder, cuboid, circle, triangle, cube, cone

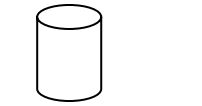
Individual Application

1. Draw the shape in the box.

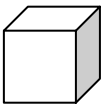


circle triangle square rectangle

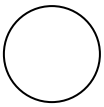
2. Match the shape with its name.



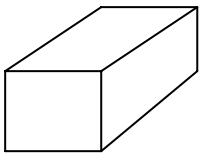
Cuboid



Sphere

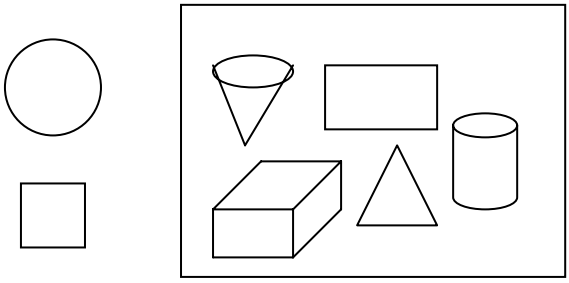


Cube



Cylinder

3. Circle the corrrect word.



Example: inside outside

a) inside outside

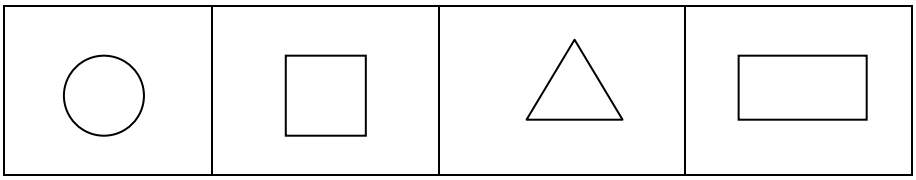
b) inside outside

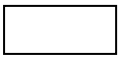
c) inside outside

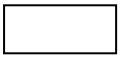
d) inside outside

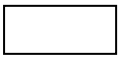
e) inside outside

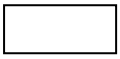
3. Draw the correct shape in the box.

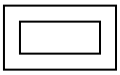
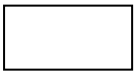


a) before the is the 

b) before the is the 

c) after the is the 

d) after the is the 

e) before the  is the 

UNIT 4: ESTIMATION

Lesson 1: Volume

Outcome

Estimate volume using non-formal units.
Demonstrate that estimation is useful in everyday life.
Identify that certain containers have a bigger volume than others.

Teaching Aids

Containers of different sizes, bucket of water

Teaching for Understanding

Put the empty containers and a bucket of water on the table. Lift up one empty tin (for example, a sunshine milk tin) and a cup. Ask children to guess how many cups of water would fill up the sunshine milk tin. Write the estimations on the board. Invite one child to come to the front and fill the cup with water and pour the water into the can. The rest of the class watch and count the number of cups. Write the measurement on the blackboard. Discuss the estimation and the measurement. Which one is bigger? Repeat the same procedure with two other empty containers.

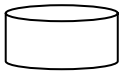
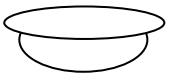
Group Work

In groups of five or six, children estimate then measure the volume of three containers using a non-formal unit.
Provide each group with three different size of containers.
Record findings in a table shown below.

Container	Estimation	Measurement

Individual Application

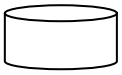
Estimate then measure the volume of these containers using a cup as a unit of measurement.

Container	Estimation	Measurement
coffee  butter bowl  basin		

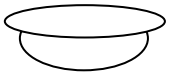
Additional Exercise

Use the measurements in the table above to fill in the missing number in the box.

Coffee → ☐ cups of water

 Butter → ☐ cups of water

Bowl → ☐ cups of water

 Basin → ☐ cups of water

Lesson 2: More Work on Volume

Outcome

Estimate and measure volume more confidently.
Calculate the difference between an estimation and a measurement.

Teaching Aids

Coffee bottle (unit of measurement), cup, bowl of water

Teaching for Understanding

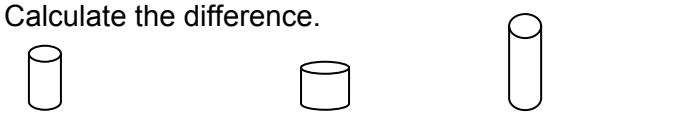
Briefly review yesterday's work by asking questions such as: What did you do yesterday? Did you enjoy it? etc. Today, the children will do more work on volume: estimate, measure, then calculate the difference. Use a coffee bottle as a unit of measurement this time. Put a cup and a bowl of water on the table. Estimate how many bottles of water will fill up the cup. Fill a coffee bottle with water and pour into the cup. Repeat until the cup is full. Then calculate the difference between the two measurements.

Group Work

Put children into groups of five or six.
Provide each group with a coffee bottle as a unit of measurement and three different containers to be measured.
Groups estimate then do the actual measuring.
They calculate the difference.
Each group presents its work.
Record the answers in a table as in Lesson 1. Include another column for the difference (see below for an example).

Individual Application

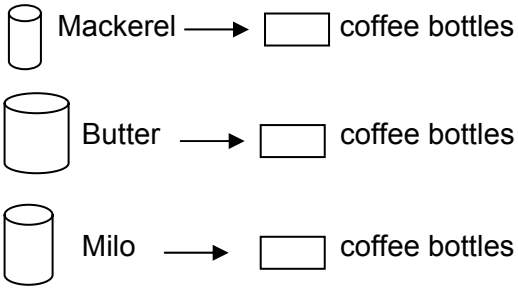
Estimate then measure, using a coffee bottle, the volume of these containers.
Calculate the difference.



Container	Estimation	Measurement	Difference

Additional Exercise

Fill in the missing number using the information in the table above.



Lesson 3: Weight

Outcome

Estimate weight using a non-formal unit.
Measure weight using a non-formal unit.
Calculate the difference between an estimation and an actual measurement.

Teaching Aids

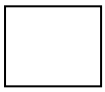
Scale, *nimoimoi* fruit (unit of measurement), duster, book, metre ruler

Teaching for Understanding

Tell children that for the last two days they have worked on volume.
Today they will do similar tasks based on weight. Show a scale and ask, Who can tell me what is this? What is used for? Tell them that they are now going to measure the weight of certain objects. Put a scale on the table. Put a small book on one side of the scale and keep on adding *nimoimoi* on the other side until it balances. Count the number of *nimoimoi* and record. Remember to estimate the number of *nimoimoi* before weighing. Work out the difference between the two answers.

Group Work

Put children into two or three groups. Try to limit the number of groups as they are going to share one scale. (If you have more than one scale then the group number is not a problem.)
Each group chooses any 3 objects to weigh.
Estimation should be done first while waiting for the scale.
Weigh the objects with *nimoimoi.*
Calculate the difference.
Answers should be recorded in a table, as below.

Objects	Estimation	Measurement	Difference
	◊ ◊ ◊ ◊ ◊ ◊	◊ ◊ ◊ ◊ ◊ ◊ ◊	◊

Individual Application

Estimate then measure the weight of the following. Use *nimoimoi* as the unit of measurement.

1. duster

2. book

3. metre ruler

Calculate the difference.

Additional Exercise

Use the information above (individual application) to fill in the boxes.

Duster ☐ *nimoimoi*

Book ☐ *nimoimoi*

metre ruler ☐ *nimoimoi*

Lesson 4: More Work on Weight

Outcome

Estimate weight using a non-formal unit.
Measure weight using a non-formal unit.
Calculate the difference between an estimation and an actual measurement.

Teaching Aids

Scale, *non* fruit (unit of measurement), duster, book, metre ruler

Teaching for Understanding

Tell children that today they will be doing further work on weight. This time they will use the fruit of *te non* as the unit of measurement.

Group Work

Put children into two or three groups. Each group chooses any 3 objects to weigh. They must be different from the objects used in the last lesson.
Estimation should be done first while waiting for the scale.
Weigh the objects with *te non.*
Calculate the difference.
Answers should be recorded in a table, as below:

Objects	Estimation	Measurement	Difference
☐	◊ ◊ ◊ ◊ ◊ ◊	◊ ◊ ◊ ◊ ◊ ◊ ◊	◊

Individual Application

Estimate then measure the weight of the following. Use *non* as the unit of measurement.

1. duster
2. book
3. metre ruler

Calculate the difference.

Additional Exercise

Use the information above (individual application) to fill in the boxes.

Duster ☐ *non*

Book ☐ *non*

metre ruler ☐ *non*

Lesson 5: Size

Outcome

Identify small and big objects.
Arrange objects according to size.

Teaching Aids

Big book, small book, big coconut, small coconut

Teaching for Understanding

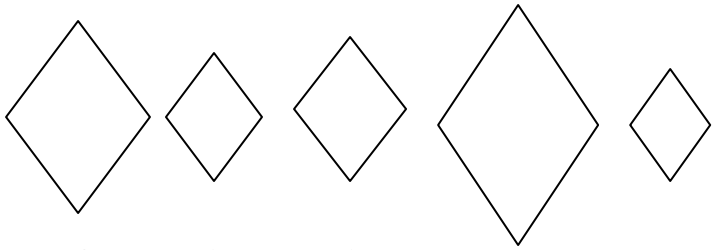
Show two books (one big and one small) to the children. Ask, what can you say about these books? Are they the same kind? Are they the same size? Which one is big? Which one is small? How do you know this book is big/small? Tell each child to get one object from inside the classroom.

Group Work

In groups of seven or more, children put their objects together.
They will arrange the objects from small to big. Visit each group to check their work. Each group presents its work to the class.

Individual Application

1. Copy and arrange the pictures from small to big.



1 2 3 4 5

Additional Exercise

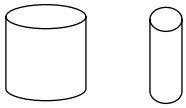
Write **big** or **small** beside each picture.
Example:

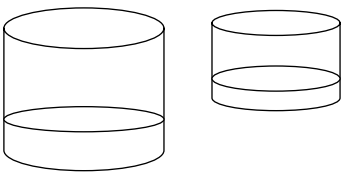
Big small

1.

2.

3.

4. 

5. 

Lesson 6: More Work on Size

Outcome

Identify small and big objects.
Arrange objects according to size.

Teaching Aids

Teaching for Understanding

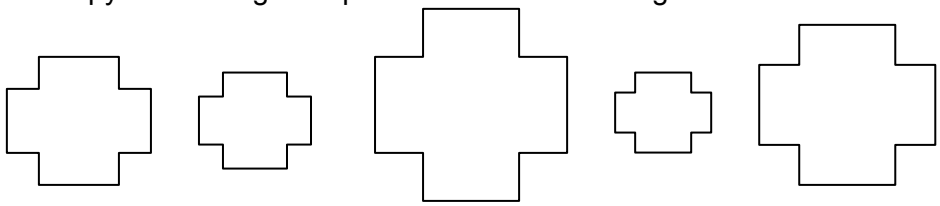
Briefly revise the work fromn Lesson 5. Explain to the children that today they will do more work on size, using different objects. Tell each child to get one object from outside the classroom.

Group Work

In groups of seven or more, children put their objects together.
They will arrange the objects from small to big. Visit each group to check their work. Each group presents its work to the class.

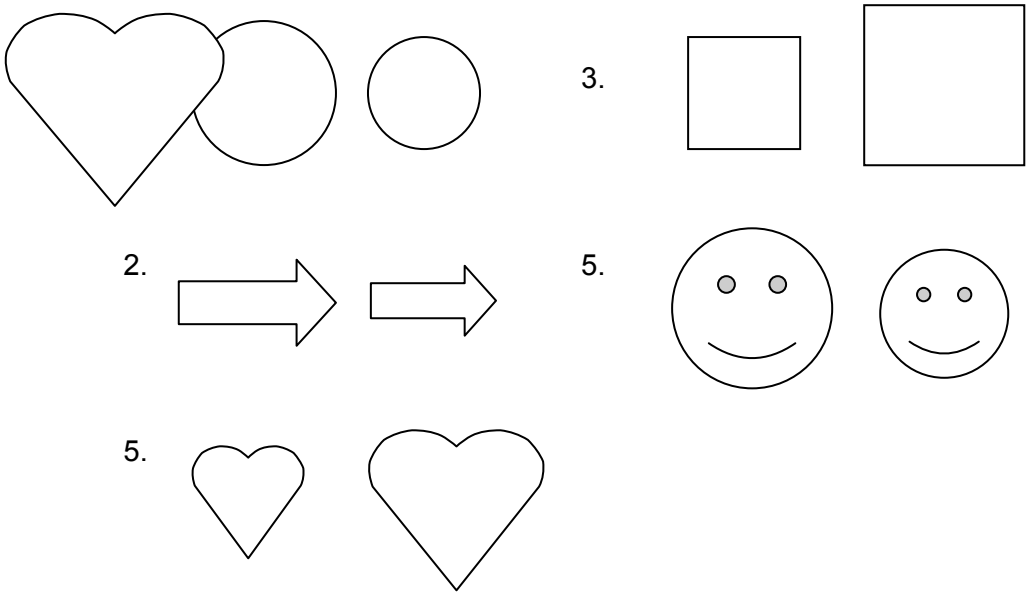
Individual Application

2. Copy and arrange the pictures from small to big.



Additional Exercise

Write **big** or **small** beside each picture.



Lesson 7: Volume, Weight and Size

Outcome

Classify volume, weight and size of objects confidently.

Teaching Aids

Big powdered milk tin, a cup, coconut, *non* fruits, five objects of different sizes, batteries, bowl, bottle of coffee, scale, bucket of water, empty containers

Teaching for Understanding

Briefly review the three topics by asking questions such as:
Explain the word volume / weight / size.
How do measure volume / weight? etc.

Group Work

Put children into three groups.
Prepare 3 tasks at different corners. Each group does the 3 tasks one at a time.

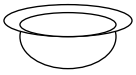
Task 1: Measure the volume of a big powdered milk container using a cup as a unit of measurement.

Task 2: Measure the weight of a coconut using the *non* fruits as unit of measurement.

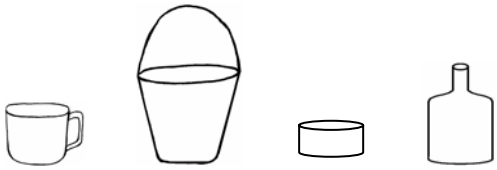
Task 3: Arrange the objects from big to small.

Groups present their findings.

Individual Application

1. Use a coffee bottle to measure the volume of a
2.  bowl
3. Use batteries to find the weight of a
4. book

3. Rearrange the pictures from the biggest to smallest.



Additional Exercise

Put a scale, bucket of water and some empty containers.
Children measure weight and volume of any objects they like.

Lesson 8: Height

Outcome

Define what height is.

Measure the height of pupils using fathoms.
State which is taller / shorter.

Teaching Aids

String

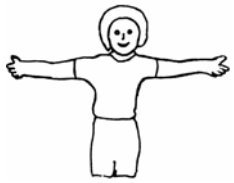
Teaching for Understanding

Ask, Do you know how tall are you? If you have not aware of your height, today you will find out, as we are going to measure how tall each one of us is. Invite one child to stand in the front facing the class. Use a piece of string to measure the height. Then, measure the string in fathoms. Record the height on the blackboard in fathoms. Remind the children that a fathom is measured from fingertip to fingertip with arms outstretched.

Group Work

In groups of five, children measure their height using string first and then measuring the string in fathoms.
Each group member's height to be measured and recorded.

A span is the distance from fingertip to fingertip, with arms stretched out, as in this picture.



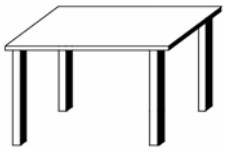
One from each group reports on the group's work.

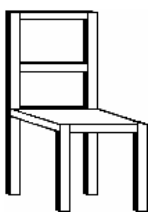
Individual Application

Draw the pictures of your group members and write the height of each of them.

Additional Exercise

Use a piece of string first then measure the string with fathoms to find the height of the following.





Lesson 9: More Work on Height

Outcome

Classify height more confidently.
Measure height in spans.

Teaching Aids

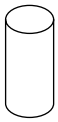
Spans, powdered milk tin (big), charts

Teaching for Understanding

Briefly review yesterday's work by asking questions like, What did you do yesterday? Can you tell me your height? What was the unit of measurement we used? Today we are going to measure more heights but will use a different unit of measurement known as a **span**. Show to the children what a span is. Demonstrate how to measure height with spans. As an example, put a big powdered milk tin on the table. Measure the height using spans. Allow two or three children to measure the height of the tin with their spans.

Group Work

In groups of five or more, children measure heights of objects in spans.
Provide each group with objects to be measured.
They draw the picture of the object on a chart and write the measurement beside it. For example:

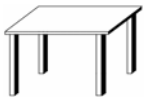


span

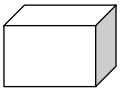
Display group work.

Individual Application

Measure the height of the following in spans.

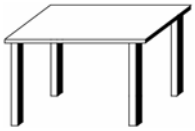
1.  teacher's table

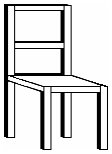
2. teacher's chair

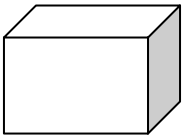
3.  box

Additional Exercise

Measure the height with string first, then measure the length of string with your foot.

1.  teacher's table

2.  teacher's chair

3.  box

Lesson 10: Measuring Volume Using Numbers

Outcome

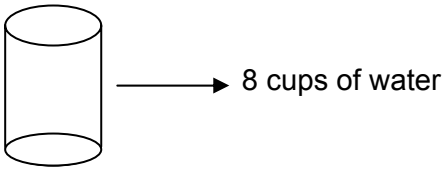
Estimate volume.
State and write measurements in numbers.
Calculate the difference.

Teaching Aids

A cup (unit of measurement)

Teaching for Understanding

Ask, Who can explain what is volume? How did you measure volume? How did you record the measurement? Today, we will do more work on measuring volume with a cup as a unit of measurement but this time recording answers in numbers. For example:



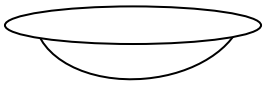
a tin of paint

Group Work

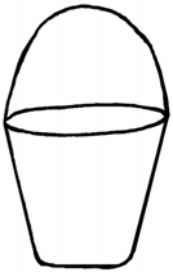
Put children into groups of six or more.
Provide each group with a cup (unit of measurement) and three different empty containers.
Group members work together to find the volume of the three containers by filling them with water. Record the measurement in cups as demonstrated above.

Individual Application

Estimate first then measure and finally calculate the difference in volume of the following. Use a cup as a unit of measurement.

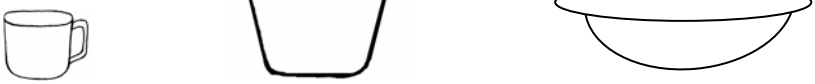
1. 

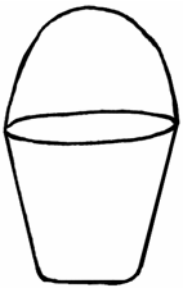
2.

3. 

Additional Exercise

Rearrange these contaners in order from smallest to biggest so as to show the volume of water which each may hold.





Lesson 11: Measuring Height Using Numbers

Outcome

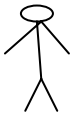
Estimate and measure height using a non-formal unit.
State and write measurement in numbers.
Calculate the difference.

Teaching Aids

String, fathoms

Teaching for Understanding

Ask, do you know your heights? How did you measure? How did you record?
Good, last lesson you recorded your heights by drawing the number of fathoms.
This time we will record or write height in numbers. For example:

 $2\frac{1}{2}$ fathoms

$1\frac{1}{2}$ fathoms

Help the children with fractonal numbers such as $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ etc.

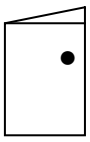
Group Work

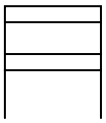
Estimate, measure then calculate the difference in height of all group members.
Write the answers on the chart in a table such as below:

Picture	Estimation	Measurement	Difference
	$1\frac{1}{2}$ fathoms	2 fathoms	$\frac{1}{2}$ fathom

Individual Application

Estimate, measure, then calculate the difference in heights of the following. Use string to measure the height, then measure the length of the string in fathoms.
Record answers in a table as above.

1.  door

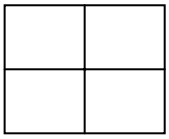
2.  shelf

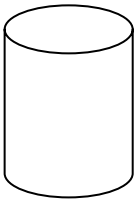
3.

metre ruler

Additional Exercise

Measure the height of the following:

1.  window

2.  tank

Lesson 12: Measuring Weight Using Numbers

Outcome

Estimate and measure weight using a non-formal unit.
State and write measurements in numbers.
Calculate the difference between weights.

Teaching Aids

Stones of similar size (unit of measurement), scale

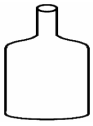
Teaching for Understanding

Ask, What did you do yesterday? Have you heard of the word weight? How do you measure weight? What is needed when measuring weight ? How did you record weight ? Explain that today they will weigh objects but record measurements in numbers. For example:

→ 5 stones

Group Work

Put children into groups of five or more to complete the table below on a chart.

Objects	Estimation of Weight	Measurement of Weight	Difference
			

Display group work.

Individual Application

Complete the table.

Objects	Estimation of Weight	Measurement of Weight	Difference
book breadfruit			

Additional Exercise

Complete the table below :

Objects	Estimation (Weight)	Measurement (Weight)	Difference
book coconut			

Lesson 13: Size in Terms of Volume, Weight and Height

Outcome

Classify different sizes
State that object with bigger sizes have more volume, weight and height.

Teaching Aids

Two objects of the same type but different size.
For example: powdered milk tin (big and small), coconut (big and small), coffee (big and small), ruler (big and small).

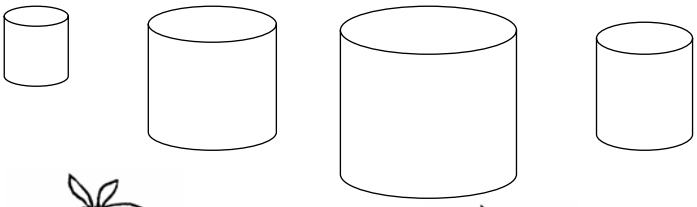
Teaching for Understanding

Put two objects of the same kind but different size on the table (stones big and small). Ask children, are they the same size? Do they have the same weight? Why? Which one will weigh more? and so on. These questions will lead the children to the idea that objects with bigger sizes will have more volume / weight or height.

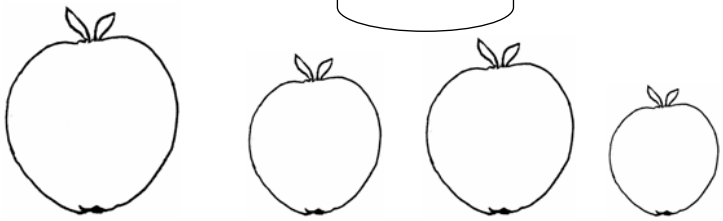
Group Work

Put children into groups of five.
Copy the pictures onto a chart and colour the picture which is biggest.

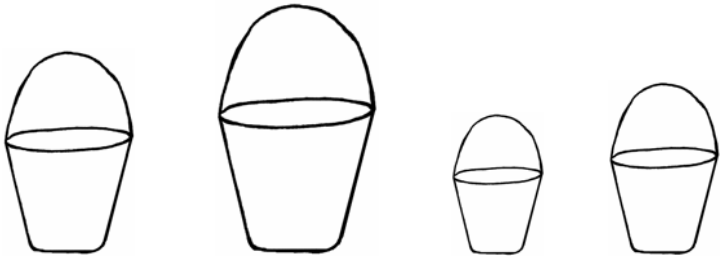
1.



2.

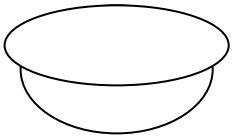


3.

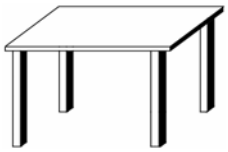


Individual Application

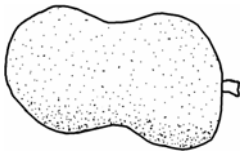
Match the pictures with the most appropriate unit of measurement.



10 *non* fruits



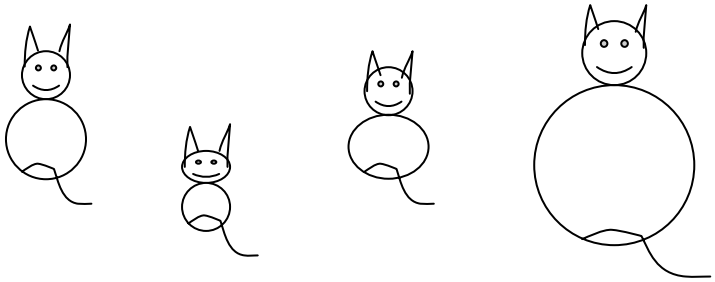
6 cups of water



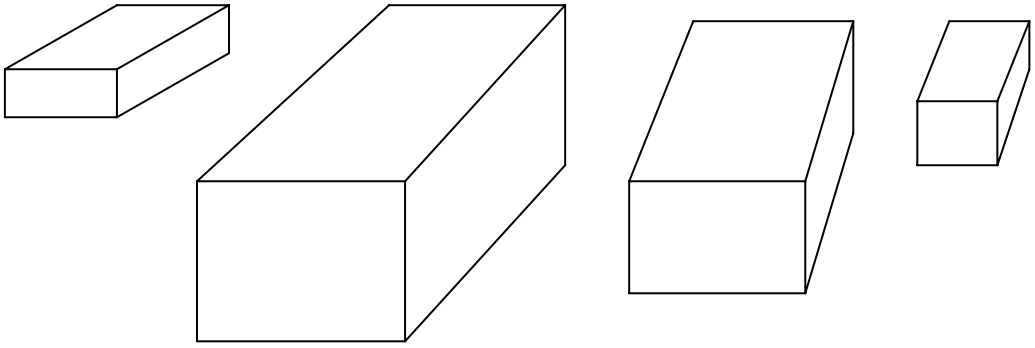
7 spans

Additional Exercise

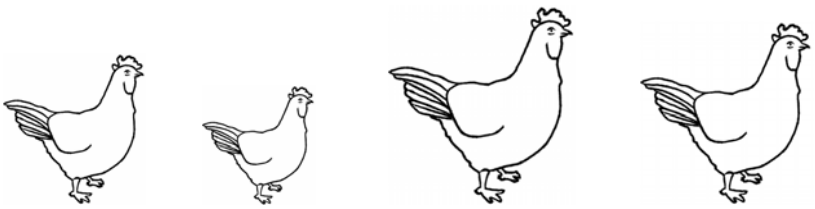
1. Rearrange these cats from biggest to smallest.



2. Circle the picture of the block of wood which is the heaviest.



3. Circle the hen which is the tallest.



Lesson 14: Revision on Estimating Volume, Weight and Height

Outcome

Estimate volume, weight and height using other forms of non-formal unit of measurement.
Write estimations and actual measurements.
Write the correct number.

Teaching Aids

Scale, containers, bucket of water, string.

Teaching for Understanding

Put children into three groups. Each of them does one of the following tasks.

Task 1: Work with a scale to weigh two objects of their choice. Decide what unit of measurement to use.

Task 2: Measure the volume of a container of your choice. Decide what unit of measurement to use. (Provide a bucket of water for this group.)

Task 3: Measure the height of any two objects of your choice. Agree on the type of unit of measurement to use.

One from each group presents the group's work.

Individual Application

Estimate and then measure the weight of three objects. Decide on a unit of measurement. Fill in the table.

Object	Estimation	Measurement	Difference

Additional Exercise

Circle the object which you think is the heaviest.

1.

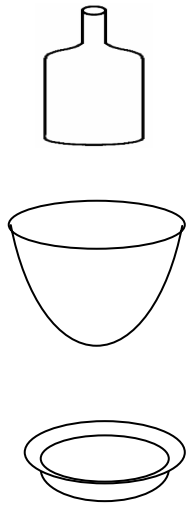
2.

3.

Lesson 15 : Assessment

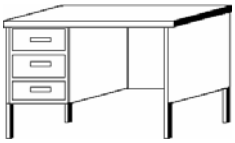
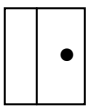
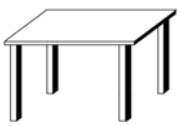
Group Work

Put children into groups of five or more.
Provide each group with a cup of the same kind to be used as a unit of measurement, plus three other containers such as cordial bottles, basins of the same size or bowls of the same size.
Each group copies the table onto a chart and completes it.

Object	Estimation	Measurement	Difference
			

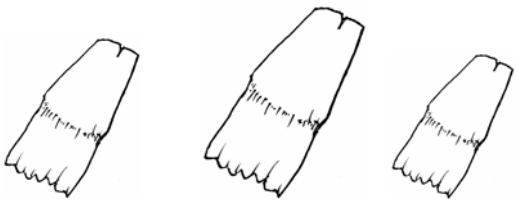
Individual Application

1. Use a book to measure the height of the objects. Fill in the columns.

Object	Estimation	Measurement	Difference
 desk  door  table			

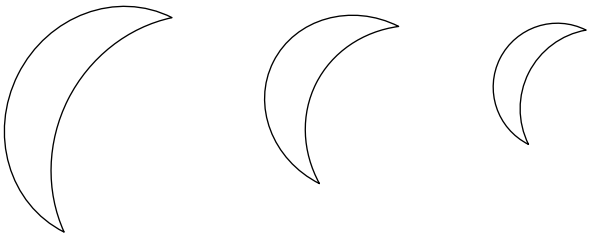
2. Circle the smallest.

a)



b)

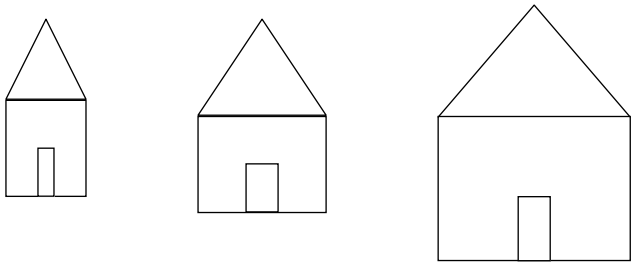
c)



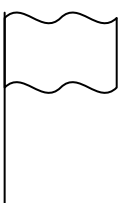
3. Circle the tallest.

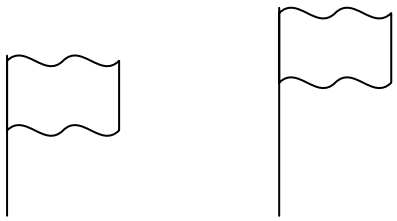
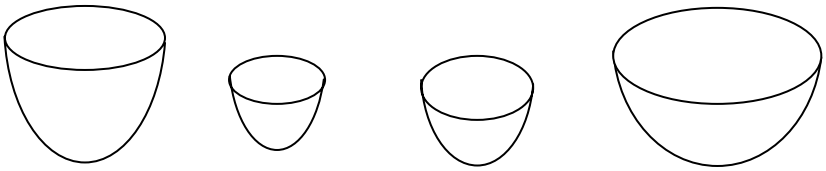
a)

e)



i)





4. Circle the heaviest.