## Lesson 5 - Statistics - Interpret Pictograms (1:1)

| NC Objective: | Resources needed: <br> Interpret and construct simple pictograms, <br> tally charts, block diagrams and simple tables | Differentiated Sheets <br> Teaching Slides |
| :--- | :--- | :--- |
|  |  | Vocabulary: Statistics, interpret, <br> pictograms, data, compare |

Children use their knowledge of one-to-one correspondence to help them interpret and answer questions about the data presented in pictograms. It is important that children are able to compare data within the pictograms

## Key Questions:

What is the pictogram showing us?
What can you find out from this pictogram?
Can you think of your own questions to ask a partner?

| W Working Towards | Working Within | Kreater Depth |
| :---: | :---: | :---: |
|  |  |  |
| Children this sheet, children are given simple retrieval questions. | On this sheet, children answer a range of questions. | On this sheet, children compare two pictograms and answer more complex questions. |
| Reasoning \& Problem Solving |  |  |
|  |  |  |



Here is a pictogram to show the favourite meals in class 2.

| Favourite Meal |  |
| :---: | :---: |
| Spaghetti |  |
| Chips |  |
| Roast Dinner |  |
| Sandwiches |  |

What's the most popular meal? $\qquad$

What's the least popular meal? $\qquad$

How many children chose chips?
people voted for spaghetti.
___ people voted for sandwiches.
___ people voted for roast dinner.

Here is a pictogram to show mini beasts collected by Class 2.
$O=1$ mini beast

| Mini Beast |  |
| :---: | :--- |
| Beetle | 0 |
| Ladybird | 0 |
| Ant |  |
| Centipede |  |
| Spider |  |

There are $\qquad$ ants.

There are $\qquad$ centipedes.

There are $\qquad$ ladybirds.

There are $\qquad$ beetles and ants.

There are $\qquad$ beetles.

There are $\qquad$ spiders.

There are $\qquad$ spiders and beetles.

There are $\qquad$ mini beasts altogether.

Here is a pictogram to show the favourite meals in class 2 .

| Favourite Meal |  |
| :---: | :---: |
| Spaghetti |  |
| Chips |  |
| Roast Dinner |  |
| Sandwiches |  |

$$
=1 \text { vote }
$$

What's the most popular meal? $\qquad$ Spaghetti How many children chose chips? $\qquad$

2 people voted for spaghetti.
4 people voted for sandwiches.
8 people voted for roast dinner.

Here is a pictogram to show mini beasts collected by Class 2.

$$
=1 \text { mini beast }
$$

| Mini Beast |  |
| :---: | :--- |
| Beetle | 0 |
| Ladybird | 0 |
| Ant |  |
| Centipede |  |
| Spider |  |

There are 2 ants.
There are $\qquad$ centipedes.

There are 5 ladybirds.
There are 4 beetles and ants.

There are 2 beetles.
There are $\qquad$ spiders.

There are 10 spiders and beetles.
There are 20 mini beasts altogether.

| Favourite Meal |  |
| :---: | :---: |
| Spaghetti |  |
| Chips |  |
| Roast Dinner |  |
| Sandwiches |  |



What's the most popular meal? $\qquad$
How many more children chose chips than sandwiches? $\qquad$
What's the least popular meal? $\qquad$
How many children are there in the class? $\qquad$ people voted for spaghetti.

Here is a pictogram to show mini beasts collected by Class 2.
O $=1$ mini beast

| Mini Beast |  |
| :---: | :--- |
| Beetle | $\bigcirc$ |
| Ladybird | 0 |
| Ant |  |
| Centipede |  |
| Spider |  |

There are $\qquad$ ants.

There are $\qquad$ beetles and spiders altogether.

There are $\qquad$ more spiders than centipedes.
$\qquad$ mini beasts were found altogether.

There are ___ ladybirds.
There are $\qquad$ centipedes and ants altogether.

There are $\qquad$ fewer ladybirds than spiders.
$\qquad$ were the least common mini beast found.

Here is a pictogram to show the favourite meals in class 2.

| Favourite Meal |  |
| :---: | :---: |
| Spaghetti |  |
| Chips |  |
| Roast Dinner |  |
| Sandwiches |  |



What's the most popular meal? $\qquad$
Roast dinner

How many more children chose chips than sandwiches? $\qquad$ 2

What's the least popular meal? $\qquad$
How many children are there in the class? $\qquad$ 20

2 people voted for spaghetti.

Here is a pictogram to show mini beasts collected by Class 2.
O $=1$ mini beast

| Mini Beast |  |
| :---: | :--- |
| Beetle | $\bigcirc$ |
| Ladybird | $\bigcirc$ |
| Ant |  |
| Centipede |  |
| Spider |  |

There are 2 ants.
There are 9 beetles and spiders altogether.
There are 5 more spiders than centipedes.
17 mini beasts were found altogether.

There are 3 ladybirds.
There are $\qquad$ 5 centipedes and ants altogether.

There are 5 fewer ladybirds than spiders.
Beetles were the least common mini beast found.

Favourite Meals - Class 2

| Favourite Meal |  |
| :---: | :--- |
| Spaghetti | 0000 |
| Chips | 000 |
| Roast Dinner | 000 |
| Sandwiches | 000 |

Favourite Meals - Class 3

|  |  |  |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| 3 |  |  |  |
| 3 |  |  |  |
| Spaghetti | Chips | Roast Dinner | Sandwiches |

What's the total of the most popular meals in both classes? $\qquad$
What's the difference in total votes for roast dinner and sandwiches in both classes? $\qquad$
What's the least popular meal in class 3 ? $\qquad$
How many children are there in both class? $\qquad$ fewer people voted for chips than spaghetti in class $\qquad$ .
$\qquad$

Here are 2 pictograms to show mini beasts collected by Class 2 and Class 3.
$O=1$ mini beast


Data- Class 2


Data- Class 3

There are $\qquad$ ants altogether.

There are $\qquad$ beetles and spiders altogether.

There is $\qquad$ more centipede than ladybirds in class $\qquad$ .
$\qquad$ mini beasts were found altogether.

2 $\qquad$ and $\qquad$ were found in both classes.

Which class collected the least mini beasts?

Which class collected an odd amount of ladybirds and centipedes?

Favourite Meals - Class 2

| Favourite Meal |  |
| :---: | :--- |
| Spaghetti |  |
| Chips |  |
| Roast Dinner |  |
| Sandwiches |  |

What's the total of the most popular meals in both classes? $\qquad$
What's the difference in total votes for roast dinner and sandwiches in both classes? $\qquad$
What's the least popular meal in class 3 ? $\qquad$ Spaghetti

How many children are there in both class? $\qquad$
2 fewer people voted for chips than spaghetti in class $\qquad$ 2

Here are 2 pictograms to show mini beasts collected by Class 2 and Class 3. $O=1$ mini beast


Data- Class 2

| Mini Beast |  |
| :---: | :--- |
| Beetle |  |
| Ladybird | 0 |
| Ant | 0 |
| Centipede | 0 |
| Spider | 0 |

Data- Class 3

There are $\qquad$ ants altogether.

There are 16 beetles and spiders altogether.
There is $\qquad$ more centipede than ladybirds in class $\qquad$ 41 mini beasts were found altogether.
2 beetles and $\qquad$ ants were found in both classes.

Which class collected the least mini beasts?
Class 3

Which class collected an odd amount of ladybirds and centipedes?
Class 3

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were 12 roses.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?

Here is a pictogram showing the number of animals on a farm.


Key: $\square=1$
Tia


Do you agree with Tia?
Explain why and correct any mistakes.

Interpret Pictograms
Reasoning \& Problem Solving

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were 12 roses.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?

Here is a pictogram showing the number of animals on a farm.


Key: $\square=1$
Tia


There are more sheep than any other animal.

Do you agree with Tia?
Explain why and correct any mistakes.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were 12 roses.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?
Children may have different numbers from this and still be correct.

Pictogram to show the number of


Key: $=1$ flower

Here is a pictogram showing the number of animals on a farm.


Tia
Key: $\square=1$
There are more sheep than any other animal.

Do you agree with Tia?
Explain why and correct any mistakes.
Tia is wrong because the number of sheep is not lined up correctly. There are 6 sheep and 8 chickens.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were 12 roses.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?
Children may have different numbers from this and still be correct.


Key: $=1$ flower

Here is a pictogram showing the number of animals on a farm.


Tia


Key: $\square=1$
There are more sheep than any other animal.

Do you agree with Tia?
Explain why and correct any mistakes.
Tia is wrong because the number of sheep is not lined up correctly. There are 6 sheep and 8 chickens.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fewer roses than daffodils.
- There were 9 daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?


Here is a pictogram showing the number of animals on a farm.


Tia

The number of chickens is one more than the number of cows.

Do you agree with Tia?
Explain why and correct any mistakes.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fewer roses than daffodils.
- There were 9 daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?


Here is a pictogram showing the number of animals on a farm.


Key: $\square=1$
Tia

Esin writes these statements about her pictogram:

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- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fewer roses than daffodils.
- There were 9 daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?
Children may have different numbers from this and still be correct.

Pictogram to show the number of


Key: $=1$ flower

Here is a pictogram showing the number of animals on a farm.


Tia


Key: $\square=1$

## The number of chickens is one more than the number of cows.

Do you agree with Tia? Explain why and correct any mistakes. Tia is wrong because the number of sheep is not lined up correctly. Also, the number of cows is not spaced like the rest. There are 7 sheep, 4 cows and 8 chickens.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fewer roses than daffodils.
- There were 9 daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it? Children may have different numbers from this and still be correct.

Pictogram to show the number of


Key: $=1$ flower

Here is a pictogram showing the number of animals on a farm.


Tia
Key: $\square=1$


The number of chickens is one more than the number of cows.
Do you agree with Tia?
Explain why and correct any mistakes.
Tia is wrong because the number of sheep is not lined up correctly. Also, the number of cows is not spaced like the rest. There are 7 sheep, 4 cows and 8 chickens.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fifty ones minus 45 tulips.
- There were fewer roses than daffodils.
- There were half of 4 ones add five daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?


Here is a pictogram showing the number of animals on a farm.



## There is the same number of

 chickens and sheep.Do you agree with Tia?
Explain why and correct any mistakes.

Interpret Pictograms
Reasoning \& Problem Solving

Esin writes these statements about her pictogram:

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- There were more lilies than any other flower.
- There were fifty ones minus 45 tulips.
- There were fewer roses than daffodils.
- There were half of 4 ones add five daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?

Here is a pictogram showing the number of animals on a farm.


Tia
Key: $\square=1$
 There is the same number of chickens and sheep.

Do you agree with Tia? Explain why and correct any mistakes.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fifty ones minus 45 tulips.
- There were fewer roses than daffodils.
- There were half of 4 ones add five daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?
Children may have different numbers from this and still be correct.
Pictogram to show the number of
flowers in a garden.


Daffodils
Tulips
Orchids
Roses


Key: $=1$ flower

Here is a pictogram showing the number of animals on a farm.

| $\square$ |  | $\square$ |  |
| :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $\square$ |  |
| $\square$ | $\square$ | $\square$ |  |
| $\square$ | $\square$ | $\square$ | $\square$ |
| $\square$ | $\square$ | $\square$ | $\square$ |
| $\square$ | $\square$ | $\square$ | $\square$ |
| $\square$ | $\square$ | $\square$ | Sheep |
| $\square$ | $\square$ | $\square$ |  |
| $\square$ | $\square$ | $\square$ |  |
| Chickens | $\square$ | $\square$ |  |

Tia
Key: $\square=1$


## There is the same number of chickens and sheep.

Do you agree with Tia?
Explain why and correct any mistakes.
Tia is wrong because the number of cows are not lined up correctly. Also, all symbols need to be evenly spaced and the same size. There are 9 chickens, 4 cows, 7 sheep and 3 horses.

Esin writes these statements about her pictogram:

- There were more roses than orchids.
- There were the same number of orchids and tulips.
- There were more lilies than any other flower.
- There were fifty ones minus 45 tulips.
- There were fewer roses than daffodils.
- There were half of 4 ones add five daffodils.

Can you draw a pictogram so that Esin's statements are correct?
What title would you give it?
Children may have different numbers from this and still be correct.
Pictogram to show the number of
Daffodils Lilies Tulips Orchids Roses


Here is a pictogram showing the number of animals on a farm.



## There is the same number of chickens and sheep.

Do you agree with Tia?
Explain why and correct any mistakes.
Tia is wrong because the number of cows are not lined up correctly. Also, all symbols need to be evenly spaced and the same size. There are 9 chickens, 4 cows, 7 sheep and 3 horses.

