## YEAR 2

## Statistics

- Draw pictograms $(2,5,10)$
- Interpret pictograms $(2,5,10)$
- Block diagrams

PrimaryStars
Block 2 - Week 6

## Monday Short

 Lesson 1
## Step: Draw Pictograms

## (Practical)

Choose an appropriate key and complete the pictogram.

| Vegetable | Number |
| :---: | :---: |
| Carrot | 10 |
| Potato | 9 |
| Cabbage | 20 |


| Vegetable |  |
| :---: | :--- |
| Carrot | $\triangle \triangle \triangle \Delta \triangle$ |
| Potato | $\triangle \triangle \triangle \triangle \Delta$ |
| Cabbage | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle$ |

KEY: $\triangle=2$

2 would be an appropriate key as it would require less counting than using a key of 1 .

Choose an appropriate key and complete the pictogram.

| Weather | Number |
| :---: | :---: |
| Rain | 80 |
| Sun | 50 |
| Snow | 20 |


| Weather |  |
| :---: | :--- |
| Rain | $\square \square \square \square \square \square \square \square$ |
| Sun | $\square \square \square \square \square$ |
| Snow | $\square \square$ |

KEY: $\square=10$
10 would be an appropriate key as the numbers are larger.

Choose an appropriate key and complete the pictogram.

| Fruit | Number |
| :---: | :---: |
| Grapes | 45 |
| Apple | 60 |
| Banana | 25 |


| Fruit |  |
| :---: | :---: |
| Grapes | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Apple | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Banana | $\bigcirc \bigcirc \bigcirc \bigcirc$ |

KEY: $\bigcirc=5$

5 would be an appropriate key as the numbers end in 0 and 5.

The best key to use for a pictogram is 5 .

## True or false?

| Clothes | Number |
| :---: | :---: |
| Jeans | 10 |
| Jumper | 9 |
| Shirt | 20 |

False. 9 is not divisible by 5 .
We also cannot use a half symbol to represent it.
What is the best key to use?
The best key to use would be 2 .
Create a pictogram to show this.

Which key has been used on the pictogram below? Explain how you know.

| Perfume | Tally |
| :---: | :--- |
| Lily | HH III |
| Rose | HH I |
| Vanilla | HH HH II |


| Perfume |  |
| :---: | :---: |
| Lily |  |
| Rose |  |
| Vanilla |  |

KEY: ${ }^{\Omega}=2$

Complete the pictogram using the key to help you.

| Food | Tally | Food |  |
| :---: | :---: | :---: | :---: |
| Pizza | HH III | Pizza | $\triangle \triangle \triangle \triangle$ |
| Chips | WHIHHHO | Chips | $\triangle \triangle \triangle \triangle \triangle \triangle$ |
| Salad | H | Salad | $\triangle \triangle L$ |

KEY: $\triangle=2$

## Wednesday Short

## Lesson 2

Step: Draw Pictograms (2, 5, 10)

Complete the pictogram using the key to help you.

| Hair colour | Tally |
| :---: | :--- |
| Black | HHHHHHHH |
| Brown | HHHHHHHHHHHH |
| Ginger | HH |
| Blonde | HHHHHHHHHH |


| Hair colour |  |
| :---: | :--- |
| Black | $\bigcirc \bigcirc \bigcirc \bigcirc$ |
| Brown | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Ginger | $\bigcirc$ |
| Blonde | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |

KEY: $\bigcirc=5$

Complete the pictogram using the key to help you．

| Fruit | Tally | Fruit |  |
| :---: | :---: | :---: | :---: |
| Apple |  | Apple | 0000000 |
| Banana | 册 册 | Banana | OO |
| Orange | 册 䏥册 䤚 | Orange | 0000 |
| Grapes |  | Grapes | 0000000 |
| Pear | H 册 H | Pear | OOO |

KEY：$\bigcirc=5$

Complete the pictogram using the key to help you．

| nimal | Tally |
| :---: | :---: |
| Cow |  |
| Pig | 册册䏥册䤚册 |
| Horse |  |
| Chicken |  |


| Animal |  |
| :---: | :--- |
| Cow | $\square \square \square \square$ |
| Pig | $\square \square \square$ |
| Horse | $\square \square \square$ |
| Chicken | $\square \square \square \square \square$ |

KEY：$\square=10$

Spot the mistake and explain your answer.
KEY: $\triangle=5$

| Colour | Tally |
| :---: | :---: |
| Red | H H H H H H H\# H |
| Blue | H+1 H+ H H H H H H H H |
| Green | 册䏥 H \#\# |
| Pink |  |


| Colour |  | Total |
| :---: | :--- | :---: |
| Red | $\triangle \triangle \triangle \triangle \triangle$ | 25 |
| Blue | $\triangle \triangle \triangle \triangle \triangle \triangle$ | 30 |
| Green | $\triangle \triangle \triangle$ | 15 |
| Pink | $\triangle \triangle \triangle \triangle$ | 4 |

The total of pink should be 20 as the key shows each triangle is worth 5 . ( $4 \times 5=20$ ).

Use the clues to complete the pictogram.
KEY: $\bigcirc=10$

| Colour |  | Total |
| :---: | :--- | :---: |
| Blue | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | 100 |
| Red | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | 80 |
| Green | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | 50 |

There are double the amount of blue than green.
Q There are 20 less red than blue.

a) How many people have blonde hair?
b) Find the difference between people with ginger hair and black.
c) How many more people with brown hair than black? 5

| Animals |  |
| :---: | :--- |
| Lion | $\square \square \square \square \square \square \square$ |
| Elephant | $\square \square \square \square \square \square \square \square \square$ |
| Giraffe | $\square \square$ |
| Rhino | $\square \square \square \square \square \square \square$ |

KEY: $\square=2$
a) What is the total number of lions?

14
b) Find the difference between the giraffes and elephants.
c) How many fewer rhinos than lions?

| Fruit |  |
| :---: | :--- |
| Apple | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Banana | $\bigcirc \bigcirc \bigcirc$ |
| Orange | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Grapes | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |

KEY: $\bigcirc=5$
a) What is the total number of grapes? 40
b) Find the difference between the bananas and apples. 25
c) How many more grapes than oranges? 15

| Animal |  |
| :---: | :--- |
| Cow | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Pig | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Horse | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Chicken | $\bigcirc \bigcirc \bigcirc$ |

KEY: $\bigcirc=5$
a) What is the total number of horses? 45
b) Find the difference between the pigs and chickens. $\qquad$
c) What is the combined total of cows and chickens?

| Ice cream |  |
| :---: | :--- |
| Vanilla | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle$ |
| Chocolate | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \Delta$ |
| Strawberry | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \Delta$ |
| Mint | $\triangle \triangle \triangle \triangle$ |

KEY: $\triangle=10$
a) What is the total number of people who like strawberry?
b) Find the difference between chocolate and mint. $\qquad$
c) How many more like strawberry than vanilla? 5

| Lollies |  |
| :---: | :--- |
| Blackcurrant | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \Delta$ |
| Orange | $\triangle \triangle \triangle \triangle \triangle \triangle \triangle$ |
| Strawberry | $\triangle \triangle \triangle \triangle \triangle$ |
| Lemon | $\triangle \triangle \triangle \Delta$ |

KEY: $\triangle=10$
a) What is the total number of people who like lemon?

## 35

b) Find the difference between orange and blackcurrant.
c) What is the combined total of strawberries and lemons?


There are 14 people who like vanilla.
8 more people prefer chocolate to strawberry.


KEY: $O=10$

There are 90 people who like cheese.
There are 30 more people who prefer pepperoni to ham.


KEY: $O=2$

There are 8 pigs and 12 cows.
There are _ 6 more people who prefer horses to chickens.


KEY: $O=5$

How many people like grapes? 40

There are 20 more people who prefer apples to oranges.


KEY: $O=10$

How many elephants were there? 80
How many more lions than rhinos? 40

The pictogram shows the number of jewellery sold.


$$
\text { KEY: } \bar{O}=10
$$

The combined total of rings and bracelets equals watches.

## True or false?

Explain how you know.
True.
70 watches, 40 rings \& 30 bracelets sold.
$40+30=70$.

Complete the pictogram using the clues.

| Tree |  |
| :--- | :--- |
| Ash | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Birch | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Elm | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ |
| Oak | $\bigcirc \bigcirc \bigcirc \bigcirc$ |

KEY: $\bigcirc=5$

1. There are 50 ash.
2. There are 5 more birch than ash.
3. There are 20 fewer elm than birch.
4. There are 15 less oak than elm.

## Friday Short

## Lesson 3

Step: Block diagrms
(Practical)


Use the block diagram to complete the table.

| Item | Number |
| :---: | :---: |
| Pencil | 7 |
| Rubber | 4 |
| Ruler | 2 |
| Scissors | 5 |

1. Which is the most popular? Pencil
2. Which is the least popular? Ruler


Complete the table using the block diagram.

| Item | Number |
| :---: | :---: |
| Dog | 8 |
| Cat | 7 |
| Hamster | 3 |
| Budgie | 4 |

1. How many more dogs than hamsters? 5
2. How many fewer budgies than cats? 3


## Complete the block diagram using the table.

| Item | Number |
| :---: | :---: |
| Pencil | 9 |
| Rubber | 2 |
| Pen | 4 |
| Scissors | 8 |



| Season | Number |
| :---: | :---: |
| Spring | 7 |
| Summer | 4 |
| Autumn | 9 |
| Winter | 6 |

Spot and explain the mistake.
The table shows 6 for winter but the block diagram only shows 5 blocks.


Give the block diagram a suitable title.

Use the block diagram to create your own questions for a partner to solve.

|  | 20 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18 |  |  |  |  |
|  | 16 |  |  |  |  |
|  | $14$ |  |  |  |  |
|  |  |  |  |  |  |
| Number | 10 |  |  |  |  |
| of |  |  |  |  |  |
| sales | 6 |  |  |  |  |
|  |  |  |  |  |  |
|  | 4 |  |  |  |  |
|  | 2 |  |  |  |  |
|  | 0 | Winter | Spring | Summer | Autumn |

Which season had the most sales? How many? Which season had 12 fewer sales than summer?

## Summer - 18 sales

Spring

|  | 20 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18 |  |  |  |  |
|  | 16 |  |  |  |  |
|  | 14 |  |  |  |  |
|  | 12 |  |  |  |  |
| Number of | 10 |  |  |  |  |
| holidays | 8 |  |  |  |  |
|  | 6 |  |  |  |  |
|  | 6 |  |  |  |  |
|  | 2 |  |  |  |  |
|  | 0 |  |  |  |  |
|  |  | May | June | July | August |

How many more holidays booked in August than July?
How many more holidays booked in July than May?

|  | 50 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 45 |  |  |  |  |
|  | 40 |  |  |  |  |
|  | 35 |  |  |  |  |
|  | 30 |  |  |  |  |
| Number of | 25 |  |  |  |  |
|  | 20 |  |  |  |  |
|  | 15 |  |  |  |  |
|  | 10 |  |  |  |  |
|  | 5 |  |  |  |  |
|  | 0 |  |  |  |  |
|  |  | Lemon | Orange | Cherry | Lime |

Which flavour had 10 more votes than lemon?
Which flavour had 25 fewer votes than orange?

Cherry
Lemon

| 100 |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :---: |
| 90 |  |  |  |  |  |
| 90 |  |  |  |  |  |

Which item had 30 fewer in total than pencils?
Scissors
What is the combined total of scissors and pencils?
130


What is the difference between the most and least popular?

The block diagram represents the table below. True or false? Explain your answer.

| Colour | Number |
| :---: | :---: |
| Red | 25 |
| Blue | 35 |
| Green | 30 |
| Pink | 40 |

False.
The table shows 40 pink but the block diagram shows 35.

| 50 |  |  |  |
| :---: | :---: | :---: | :---: |
| 45 |  |  |  |
| 40 |  |  |  |
| 35 |  |  |  |
| 30 |  |  |  |
| 25 |  |  |  |
| 20 |  |  |  |
| 15 |  |  |  |
| 10 |  |  |  |
| 5 |  |  |  |
| 0 |  |  |  |
| Red | Blue | Green | Pink |

Use the clues to complete the block diagram.

Trousers sold the most with 90.

Skirts sold 40 less than shirts which sold 30 less than trousers.

There were 200 sales altogether.

| 100 |  |  |  |  |
| ---: | :--- | :--- | :--- | :--- |
| 90 |  |  |  |  |
| 80 |  |  |  |  |
| 70 |  |  |  |  |
| 60 |  |  |  |  |
| 50 |  |  |  |  |
| 40 |  |  |  |  |
| 30 |  |  |  |  |
| 20 |  |  |  |  |
| 10 |  |  |  |  |
| 0 |  |  |  |  |
|  | Trousers | Jumpers | Skirts | Shirts |

