

**Summer Week 7 Lesson 2 – 09.06.20**

**STARTER: Multiplying by 10, 100 and 1000**

Use  $<$ ,  $>$  or  $=$  to complete the statements.

$71 \times 1,000$



$71 \times 100$

$100 \times 32$



$16 \times 1,000$

$48 \times 100$



$48 \times 10 \times 10 \times 10$

**Year 4/5 Maths**

**Summer Week 7 Lesson 2 – 09.06.20**

**LO: To interpret data**

**Task:**

You are going to continue looking at data in different formats and will use your reasoning and problem solving skills to interpret it.

**Success Criteria:**

|  |
|--|
| 1. Read the question carefully.  |
| 2. Look at the data.   |
| 3. Think through how you would represent that data in the different formats. |
| 4. Choose the format that is easiest, clearest and the most exact.           |

**Model:**

Halifax City Football Club sold the following number of season tickets:

- Male adults – 6,382
- Female adults – 5,850
- Boys – 3,209
- Girls – 5,057

Would you use a bar chart, table or pictogram to represent this data? Explain why.

**First:** Look at the numbers in the problem.

**Second:** Think about the options for representing the data: bar chart, table or pictogram.

**Third:** Would you be able to represent such large numbers in a pictogram? Could you represent such large numbers exactly in a bar chart? Could you record these numbers in a table?

Possible answer:  
I would represent the data in a table because it would be difficult to show the exact numbers accurately in a pictogram or bar chart.



**1a. A toy shop are keeping track of how many toys they sell each month.**

The staff are thinking how to collect the information.


 Ali: I think a tally chart beside the till would be the best way.


 Lea: I want to use a bar chart, with a different colour for each toy.

☆ Who do you agree with and why? 4 R

**1b. The school tuck shop would like to know which fruit sells best.**

The children are deciding how to record each sale.

 Faith: A pictogram drawing each fruit as we sell it.

 Tom: A bar chart, we can put a cross each time we sell a fruit.

☆ Who do you agree with and why? 4 R

**2a. True or false?**

In a pictogram, you have to count the images and that is the value of the item, 10 car images is always worth 10 cars.

Explain your answer.

☆ 4 PS

**2b. True or false?**

It is important to be able to count in 5s if you are using a tally chart.

Explain your answer.

☆ 4 PS

**3a. Mr Harrison says this pictogram is not easy to interpret.**

*Favourite Sweets*

|                  |
|------------------|
| Mint             |
| Toffee           |
| Chocolate Orange |



Find 1 way you could improve the pictogram.

☆ 4 R

**3b. Mrs Bentley says this table is not easy to interpret.**

*Frequency of Exercise*

| Age       | Daily | Weekly |    |
|-----------|-------|--------|----|
| Under 10s | 12    | 32     | 45 |
| 10 – 15   | 7     | 43     | 43 |
| 16 – 21   | 5     | 21     | 56 |
| 21 +      | –     | 54     | 72 |

Find 1 way you could improve the table.

☆ 4 R

**MILD**

4a. The children are voting on the playground equipment to be bought.

Year 4 need to decide how to present the outcome.



Libby

I'm going to draw a pictogram.

I'm going to make a tally chart.



James

★ Who do you agree with and why? 4 R

4b. Class 4S are collecting information about how children travel to school.

Year 4 need to decide how to present the data.



Fred

I'd like to use a bar chart.

I'm planning a table with the figures in.



Tina

★ Who do you agree with and why? 4 R

5a. True or false?

A bar chart must have lots of different colours.

Explain your answer.

★ 4 PS

5b. True or false?

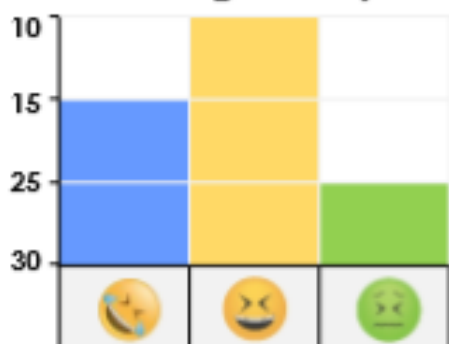
Your scale should always have a figure for each 10.

Explain your answer.

★ 4 PS

6a. Miss Khan says this block graph is not easy to interpret.

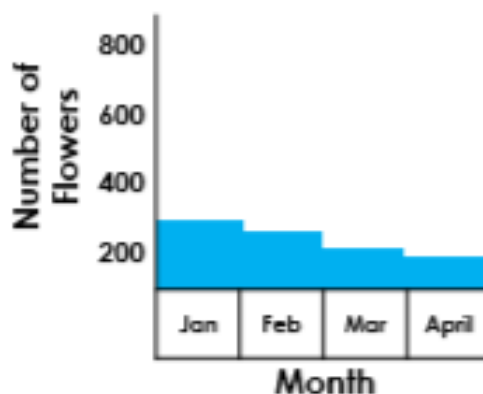
How dancing makes you feel



Find 2 ways you could improve the chart.

★ 4 R

6b. Mr Mullaney says this bar chart is not easy to interpret.



Find 2 ways you could improve the chart.

★ 4 R

# SPICY

**7a.** The council want to know how many children are in year 3 in the 25 schools in the area.

They are deciding how to present the information.



Sophia

A tally chart would be best.

A table of numbers would be the best.



Si

★ Who do you agree with and why? 4 R

**7b.** There is a traffic survey on the main road to assess the amount of traffic at peak times and lunch time.

How should they record the information?



Josie

I'm going to use a pictogram.

I think a bar chart would be best.



Dion

★ Who do you agree with and why? 4 R

**8a.** True or false?

The scale should always go up in ones or twos.

★ Explain your answer. 4 PS

**8b.** True or false?

If your chart has a title, then you don't need to label the axes.

★ Explain your answer. 4 PS

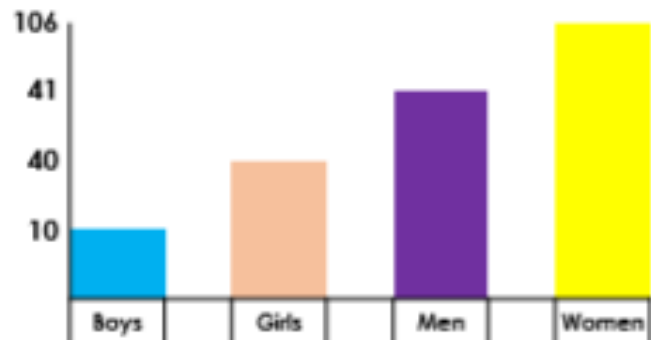
**9a.** Mrs Munroe says this table is not easy to interpret.

|         | Always | Sometimes |   |
|---------|--------|-----------|---|
| Mum     | 10     | 5         | 2 |
| Dad     | 12     |           | 1 |
| Grandma | 4      |           | 3 |
| Grandad | 5      | 14        | 2 |

Find 3 ways you could improve the chart.

★ 4 R

**9b.** Mr Fallon says this bar chart is not easy to interpret.



Find 3 ways you could improve the chart.

★ 4 R

# RED HOT

**7a. The table below shows data for different kinds of spiders.**

|                    | Lifespan (years) | Weight (grams) | Leg span (cm) |
|--------------------|------------------|----------------|---------------|
| Giant Huntsman     | 2.5              | 175            | 30            |
| Black Widow        | 3                | 1              | 3.8           |
| Red-Knee Tarantula | 25               | 16.5           | 12.7          |
| Wolf Spider        | 1                | 1              | 3.1           |

**Create three questions about the data. Make sure you include the answers!**



PS

**7b. The table below shows the data for different kinds of birds.**

|                    | Wingspan (m) | Weight (kg) | Dive Speed (km/h) |
|--------------------|--------------|-------------|-------------------|
| Golden Eagle       | 2.3          | 6.3         | 241               |
| Peregrine Falcon   | 1.2          | 1.5         | 389               |
| Brown Pelican      | 1.2          | 5.5         | 48                |
| Red-throated Diver | 1.1          | 1.6         | 78                |

**Create three questions about the data. Make sure you include the answers!**



PS

**8a. The table below shows the time taken in seconds to run 200m over three races.**

|                 | Race 1 | Race 2 | Race 3 |
|-----------------|--------|--------|--------|
| Usain Bolt      | 19.3   | 19.2   | 19.2   |
| Jesse Owens     | 23.4   | 22.3   | 20.7   |
| Michael Johnson | 20.1   | 19.1   | 19.7   |

**Over all three races, Usain Bolt was the only runner to finish in under 1 minute. Do you agree? Prove it.**



R

**8b. The table below shows the time taken in seconds for a car to reach 80mph.**

|       | 1 <sup>st</sup> attempt | 2 <sup>nd</sup> attempt | 3 <sup>rd</sup> attempt |
|-------|-------------------------|-------------------------|-------------------------|
| Car 1 | 13.9                    | 12.8                    | 12.5                    |
| Car 2 | 13.5                    | 13.2                    | 12.7                    |
| Car 3 | 12.7                    | 14.8                    | 11.5                    |

**In total, there was only 0.4 seconds between the slowest and fastest cars. Do you agree? Prove it.**



R

**9a. Keeley measures different routes in km to see how far away her friends live.**

|         | Martha | Donovan | Lesley |
|---------|--------|---------|--------|
| Route 1 | 12.5   | 87.3    | 47     |
| Route 2 | 25     | 56      | 35     |
| Route 3 | 10     | 77.7    | 30.5   |



Keeley

**In metres, my friends are closer on route 3 compared to route 2.**

**Do you agree with Keeley? Why?**



R

**9b. Stan measures how far away different shops are in m from his friends' houses.**

|            | Tristan | Lucy   | Anthony |
|------------|---------|--------|---------|
| Cut Costs  | 2,800   | 7,600  | 15,600  |
| Pet Power  | 1,800   | 10,100 | 11,100  |
| Cars 4 You | 900     | 7,400  | 5,500   |



Stan

**In km, Pet Power is closer to all of my friends than Cut Costs.**

**Do you agree with Stan? Why?**



R