

Diving into Mastery



# Interpret Charts

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# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



**Diving**



**Deeper**



**Deepest**

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.



# National Curriculum Objective

- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.



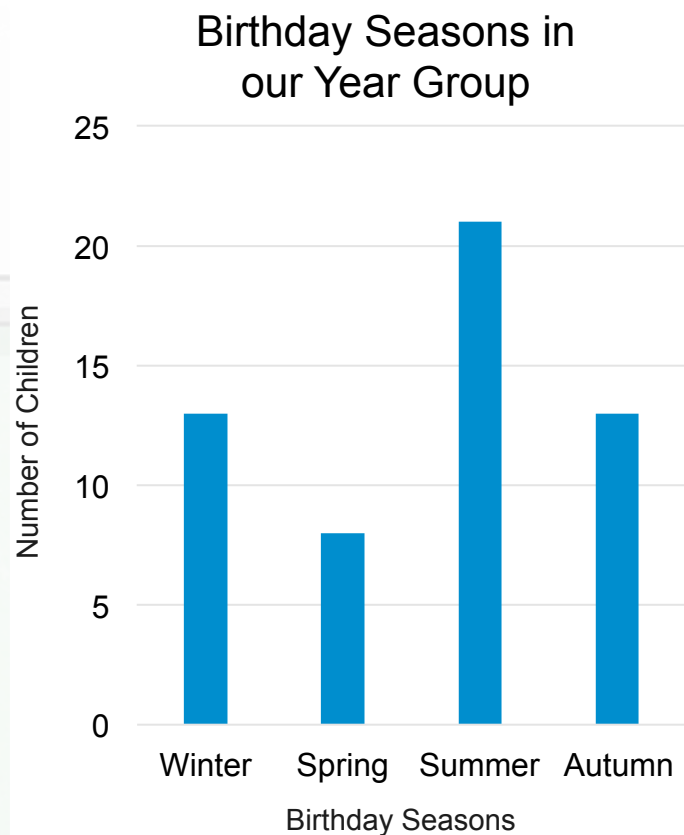
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## Interpret Charts

## Diving



Sara wants to find out about the seasons when people in her year group have their birthdays.



Which results are missing?  
Use the bar chart to complete the table.

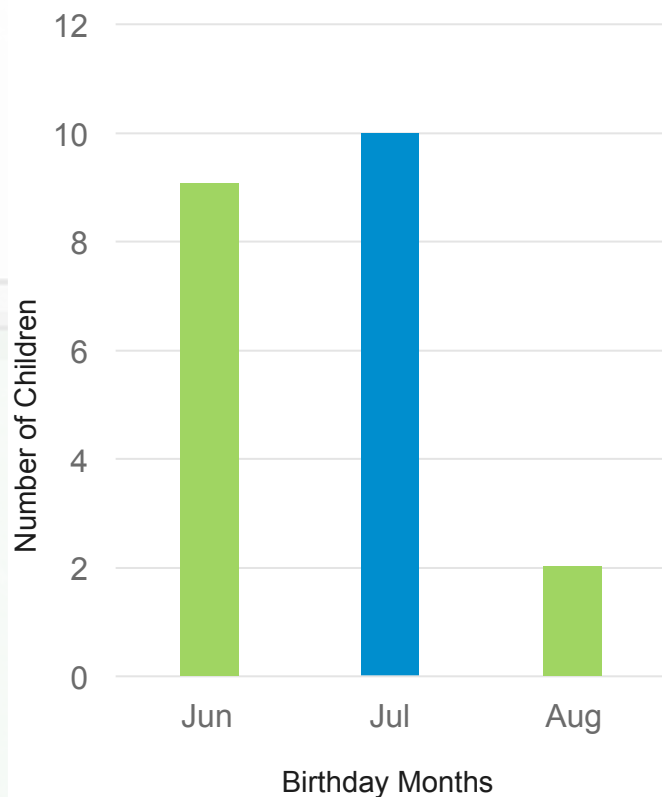
Birthday Seasons	Number of Children
Winter	13
Spring	8
Summer	21
Autumn	13

## Interpret Charts

## Diving



Summer Birthday Months  
in our Year Group



Karim wants to find the birthday months of the children whose birthdays are in summer.

His bar chart is missing some results.  
Use the table to fill them in.

Birthday Months	Number of Children
Jun	9
Jul	10
Aug	2



Leo has recorded the favourite types of birthday cake in his class.

These are the types of cake and the number of children who voted for each.

Chocolate: 5 boys and 10 girls  
Sponge: 6 boys and 3 girls  
Fruitcake: 1 boy and 2 girls

Would you present this data in a table, bar chart or pictogram?  
Click to see examples of each:

Table

Bar Chart

Pictogram

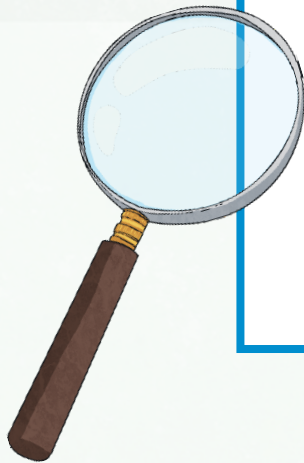
## Interpret Charts

## Deeper



### Table

Type of Cake	Boys Who Liked It	Girls Who Liked It
Chocolate	5	10
Sponge	6	3
Fruitcake	1	2



What is clear?  
What is unclear?

Discuss the reasons for and against using the method to present results.

Bar Chart

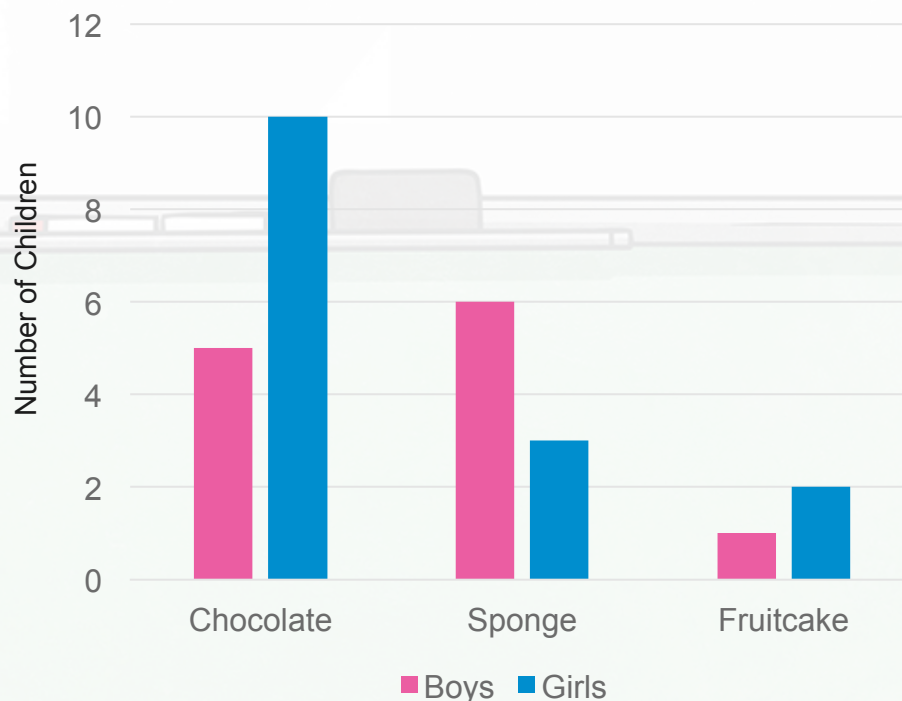


What is clear?  
What is unclear?

Discuss the reasons for  
and against using the  
method to present results.

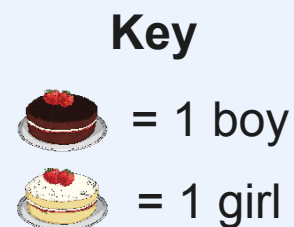


Our Class's Favourite  
Birthday Cakes





## Pictogram



What is clear?  
What is unclear?

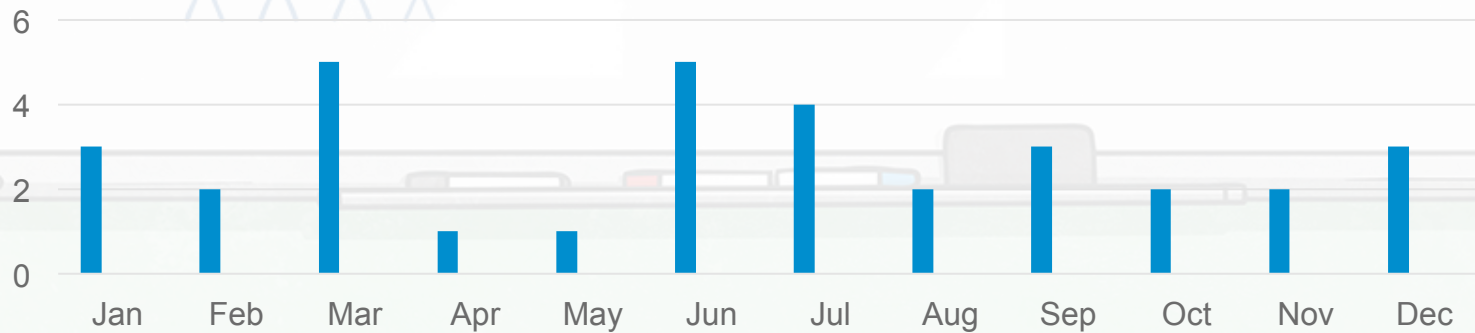
Discuss the reasons for and against using the method to present results.

## Interpret Charts

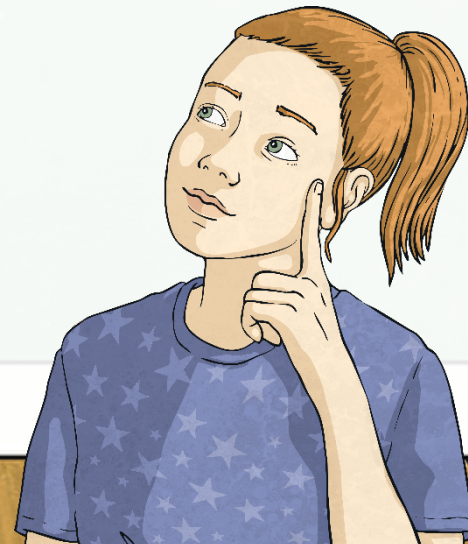
Deepest



Emmeline has recorded people's birthdays in this bar chart. What could she do to improve it?



- Give her chart a title
- Label the axes
- Make her scale clearer

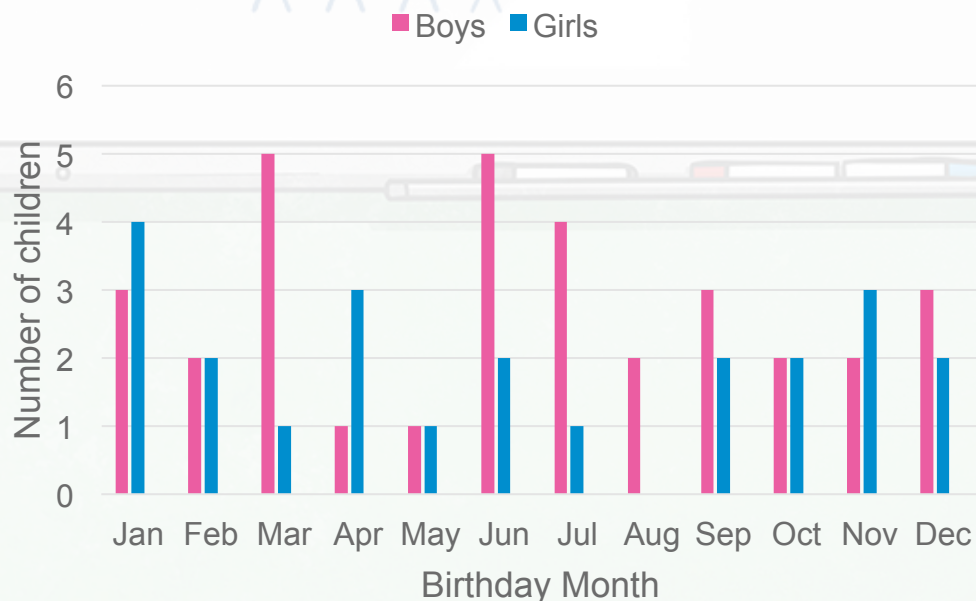


## Interpret Charts

Deepest

Answer these questions about this chart:

Birthday Months in Year 4



Can you ask a question for someone else to answer using this chart?

How many boys are there in year 4?

33

How many children have a birthday in June?

7

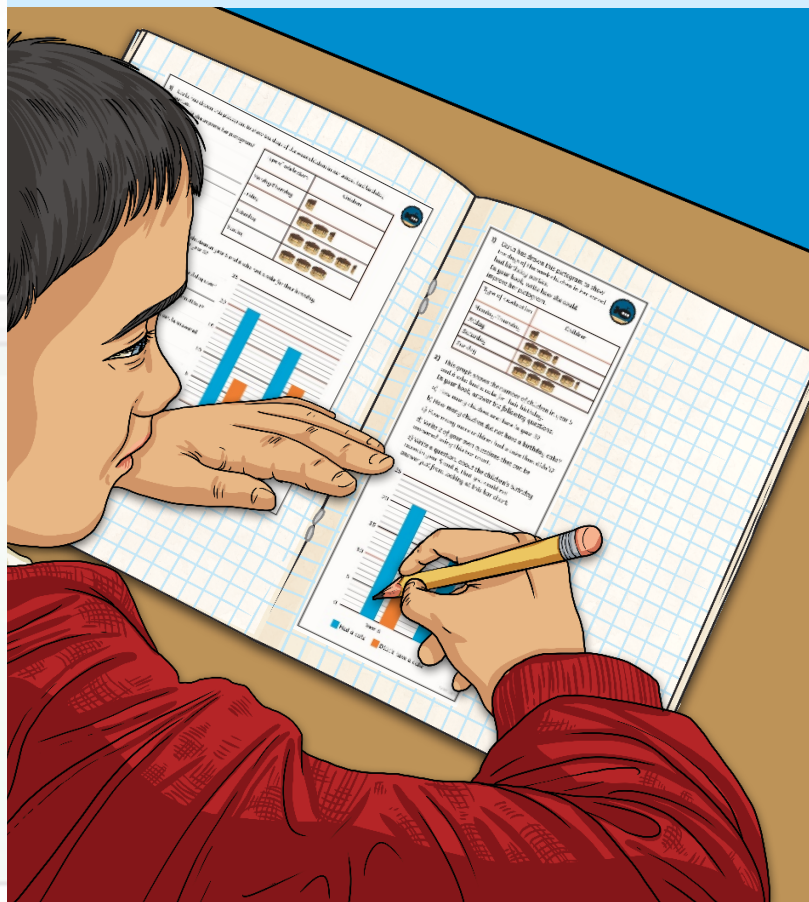
Which 4 months have the same number of birthdays?

**July, September, November and December all have 5 birthdays.**



# Interpret Charts

Dive in by completing your own activity!



1) Here is a table and a bar chart of 29 children. Some results are

Month	Number of children
January	
February	3
March	6
April	
May	1
June	2
July	1
August	
September	
October	2
December	2
Total	29

1) Amir wants to present the birth record this information?

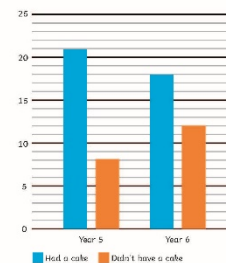
Explain why:

2) On squared paper, record the birthday cakes in your class. Remember you will need to stop and girls on the chart together.

1) Carla has drawn this pictogram to show the days of the week children in her school had birthday parties. In your book, write how she could improve her pictogram.

Type of celebration	Children
Monday-Thursday	
Friday	
Saturday	
Sunday	

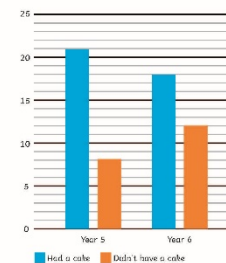
2) This graph shows the number of children in year 5 and 6 who had a cake for their birthday. In your book, answer the following questions:  
 a) How many children are there in year 5?  
 b) How many children did not have a birthday cake?  
 c) How many more children had a cake than didn't?  
 d) Write 2 of your own questions that can be answered using this bar chart.



1) Carla has drawn this pictogram to show the days of the week children in her school had birthday parties. In your book, write how she could improve her pictogram.

Type of celebration	Children
Monday-Thursday	
Friday	
Saturday	
Sunday	

2) This graph shows the number of children in year 5 and 6 who had a cake for their birthday. In your book, answer the following questions:  
 a) How many children are there in year 5?  
 b) How many children did not have a birthday cake?  
 c) How many more children had a cake than didn't?  
 d) Write 2 of your own questions that can be answered using this bar chart.



# Need Planning to Complement this National Curriculum Aim

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

For more planning resources to support this aim, [click here](#).

**Colour Car Investigation**  
Data that is counted and has no continuous value is called discrete data. Help the class to answer these questions about their discrete data.

Colour	Tally	Frequency
Red		4
Blue		5
Black		4
White		4
Other		4

Which colour of car occurred by the most?

**Transport Statistics**

**Pictograms**  
The children in Class 6 have carried out a different investigation and presented it as a pictogram. A Pictogram to Show How the Children in Class 6 Travel to School.

Mode	Number of Children
Walk	10
Car	5
Bus	10
Train	5
Other	5

**Statistics: Transport Statistics**

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**Birthday Maths**  
In their maths lesson, the children in class 6 are creating bar charts to show how many of their birthdays are in each month.

Month	Number of Birthdays
January	2
February	1
March	3
April	2
May	3
June	2
July	3
August	2
September	3
October	2
November	3
December	2

**Birthday Bar Charts**

**Birthday Maths**  
Mr Jones then showed the children how to present the data as a bar chart. A Bar Chart to Show the Number of Birthdays in Each Month for Class 6.

Month	Number of Birthdays
Jan	2
Feb	1
Mar	3
Apr	2
May	3
Jun	2
Jul	3
Aug	2
Sep	3
Oct	2
Nov	3
Dec	2

**Statistics: Birthdays**

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