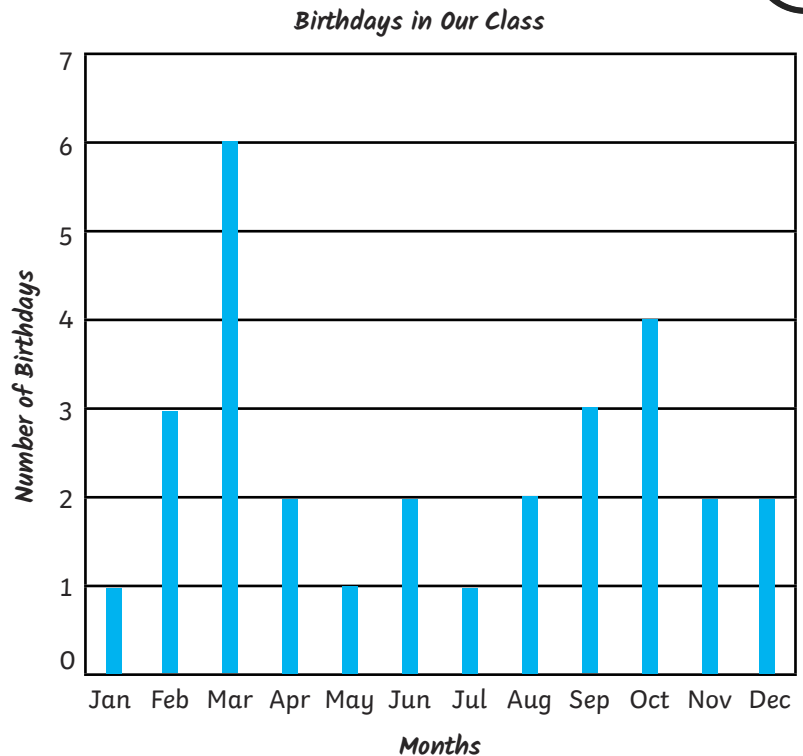




- 1) Here is a table and a bar chart showing the number of birthdays in each month of the year in a class of 29 children. Some results are missing. Fill in or draw on the missing results and label the axes.

Month	Number of Children
January	1
February	3
March	6
April	2
May	1
June	2
July	1
August	2
September	3
October	4
November	2
December	2
Total	29



- 1) Amir wants to present the birthdays of everyone in his school. Should he use a table, bar chart or pictogram to record this information? Explain why.



*Answers may vary but explanations could include:
Pictograms may be unclear with higher numbers.
A bar chart as lots of information can be recorded.*

- 2) On squared paper, record the birthdays in Amir's school using your chosen method. Remember you will need to show boys and girls on the chart together.
Children should demonstrate separate coloured bars or pictorial representations for boys and girls.

- 1) Carla has drawn this pictogram to show the days of the week when children in her school had birthday parties. How could she improve her pictogram?



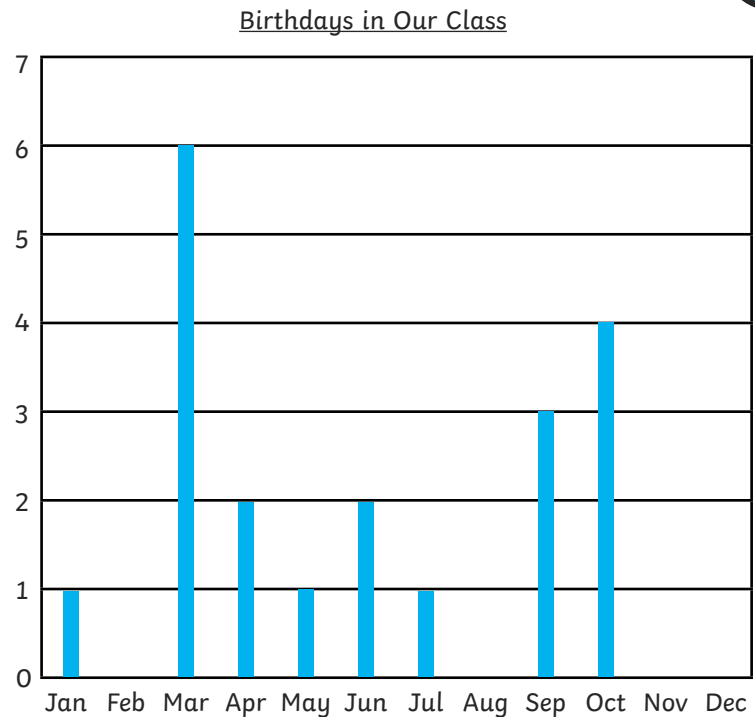
Answers could include: clearer headings; a title; much clearer pictures; a key showing how many children each picture represents.

- 2) This graph shows the number of children in year 5 and 6 who had a cake for their birthday.
- How many children are there in year 5? **29**
 - How many children did not have a birthday cake? **20**
 - How many more children had a cake than didn't? **19**
 - Write two of your own questions that can be answered using this bar chart: **Multiple answers possible.**
 - Write a question, about the children's birthday cakes in year 5 and 6, that you could not answer just from looking at this bar chart. **Multiple answers possible.**

- 1) Here is a table and a bar chart showing the number of birthdays in each month of the year in a class of 29 children. Some results are missing. Fill in or draw on the missing results and label the axes.



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



- 1) Amir wants to present the birthdays of everyone in his school. Should he use a bar chart or pictogram to record this information?







Explain why:

Month	Number of Girls	Number of Boys
January	16	18
February	11	8
March	19	6
April	21	17
May	19	23
June	17	23
July	16	15
August	14	24
September	20	19
October	22	23
November	10	18
December	17	20

- 2) On squared paper, record the birthdays in Amir's school using your chosen method. Remember you will need to show boys and girls on the chart together.



- 1) Carla has drawn this pictogram to show the days of the week when children in her school had birthday parties.
How could she improve her pictogram?

Day 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.

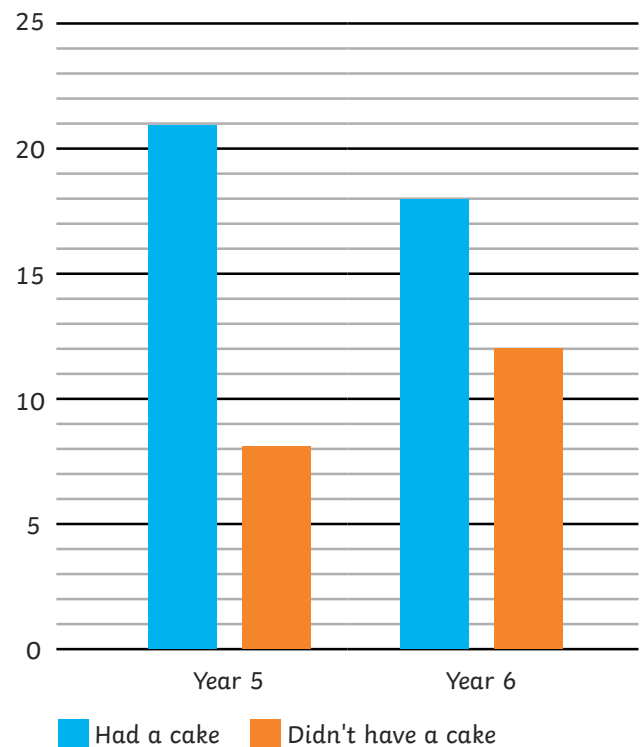
a) How many children are there in year 5?

b) How many children did not have a birthday cake?

c) How many more children had a cake than didn't?

d) Write two of your own questions that can be answered using this bar chart:

e) Write a question, about the children's birthday cakes in year 5 and 6, that you could not answer just from looking at this bar chart.



Diving into Mastery



Interpret Charts



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

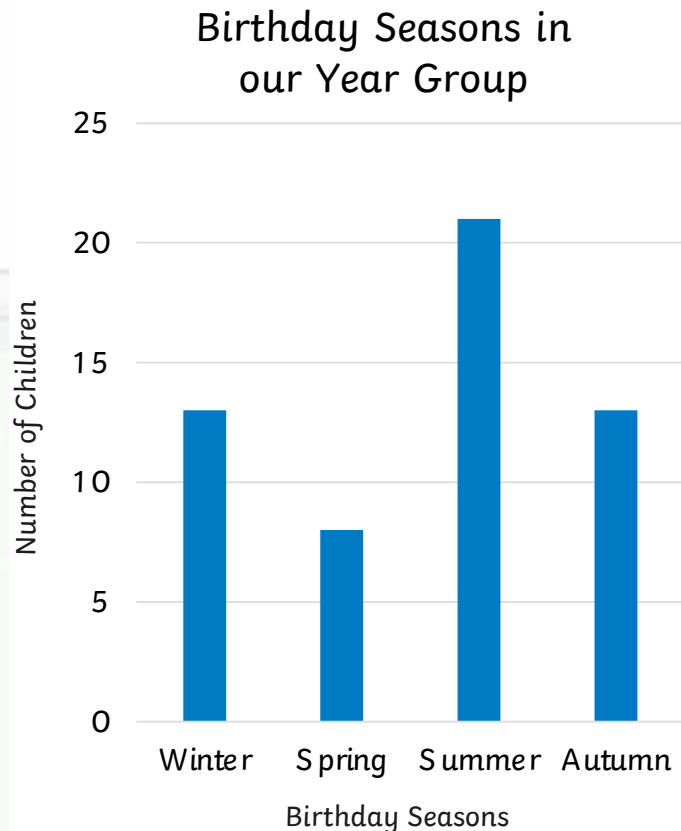
- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

Interpret Charts

Diving



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



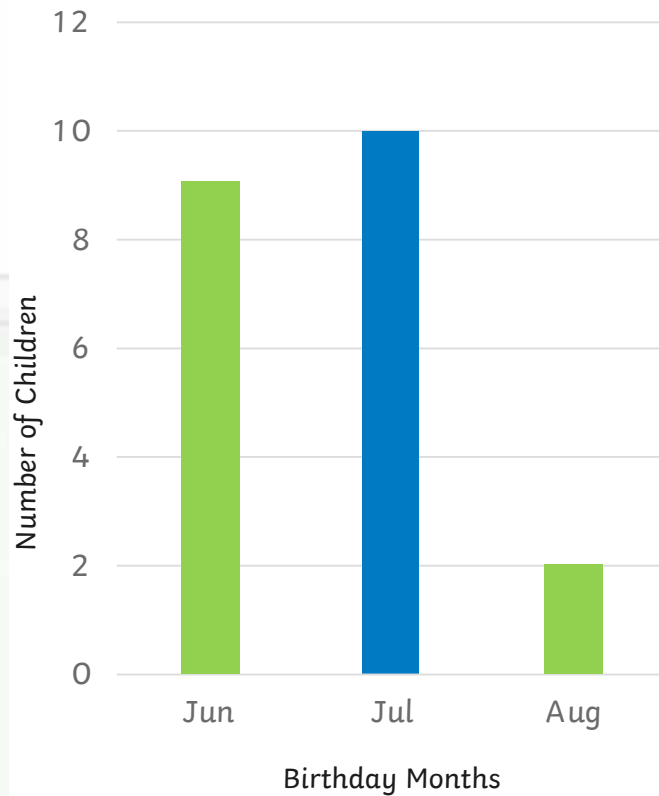
Which results are missing?
Use the bar chart to complete the table.

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

Interpret Charts

Deeper



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.

Interpret Charts

Deeper

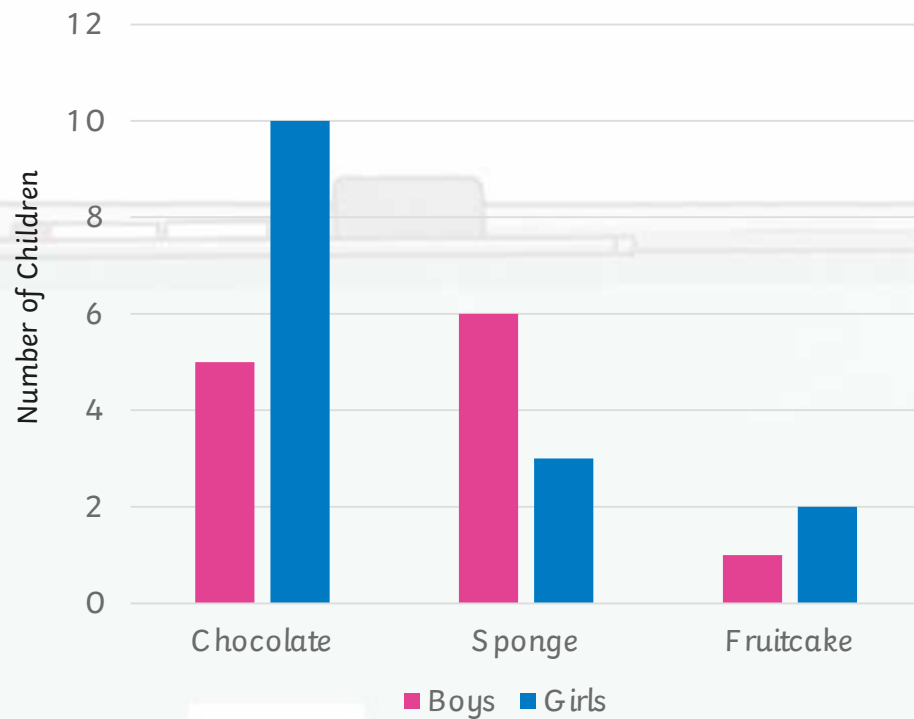
Bar Chart

What is clear?
What is unclear?

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



Our Class's Favourite Birthday Cakes





Interpret Charts

Deeper

Pictogram



Key

 = 1 boy
 = 1 girl

What is clear?
What is unclear?

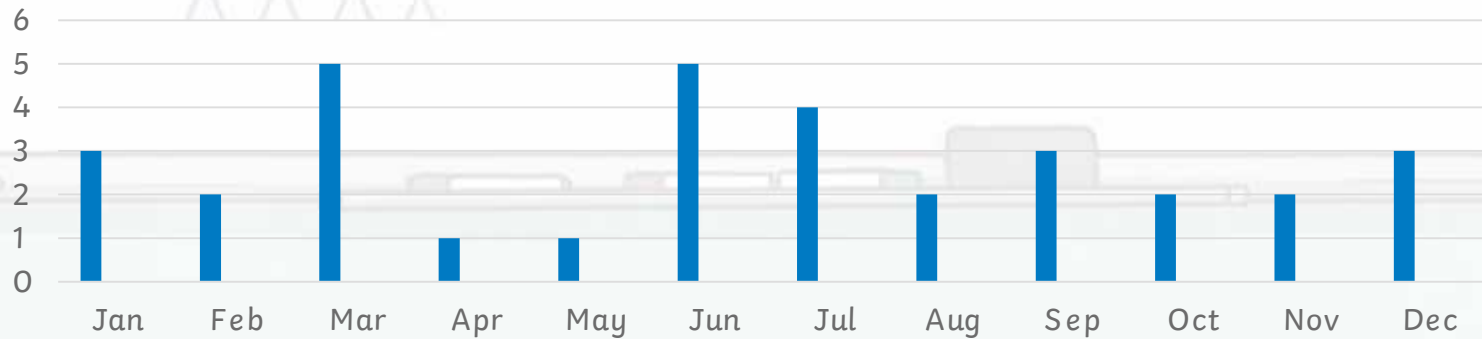
Discuss the reasons for and against using the method to present results.

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

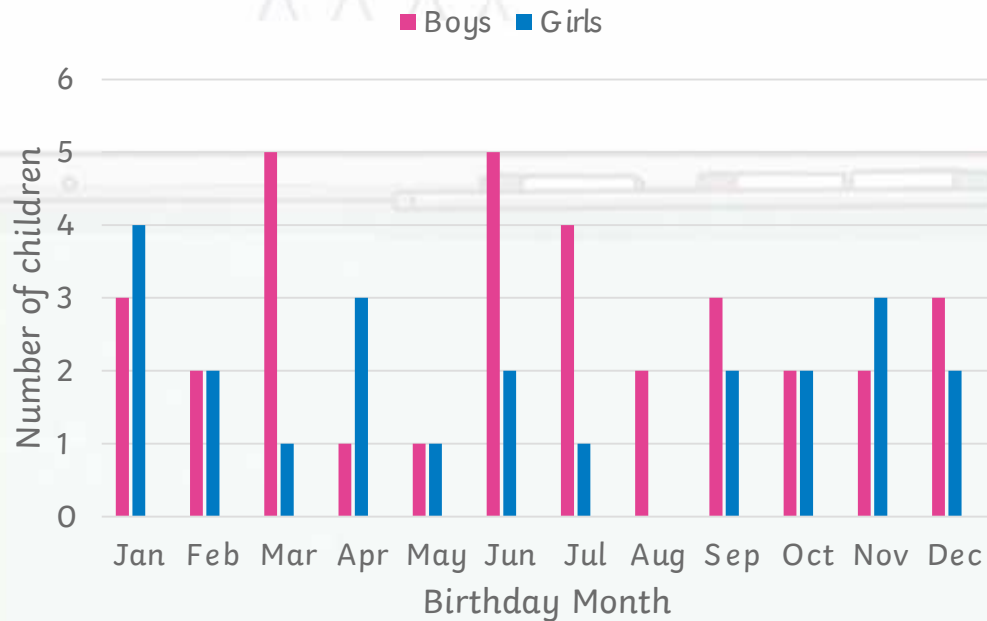


Interpret Charts

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?

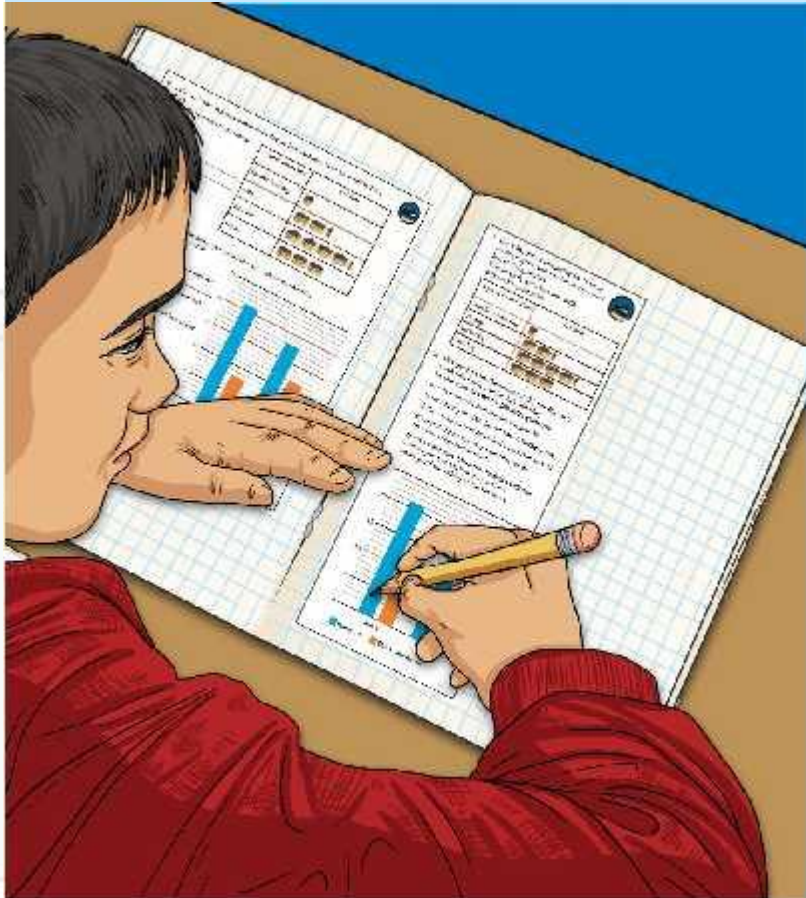
7

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!



11 How much water do children drink each day? Complete the table and draw a bar chart.

Child	Amount of water
Anthony	2
Benji	4
Chloe	3
Harry	1
Jack	2
Sam	3
Tom	1
Suzanne	
Debbie	
Rowena	4
EMILIE	2
Total	23

12 How many children like to eat each of these foods? Complete the table and draw a bar chart.

Food	Number of children
Apple	10
Banana	5
Orange	15
Pineapple	12
Watermelon	8

13 How many children like to eat each of these foods? Complete the table and draw a bar chart.

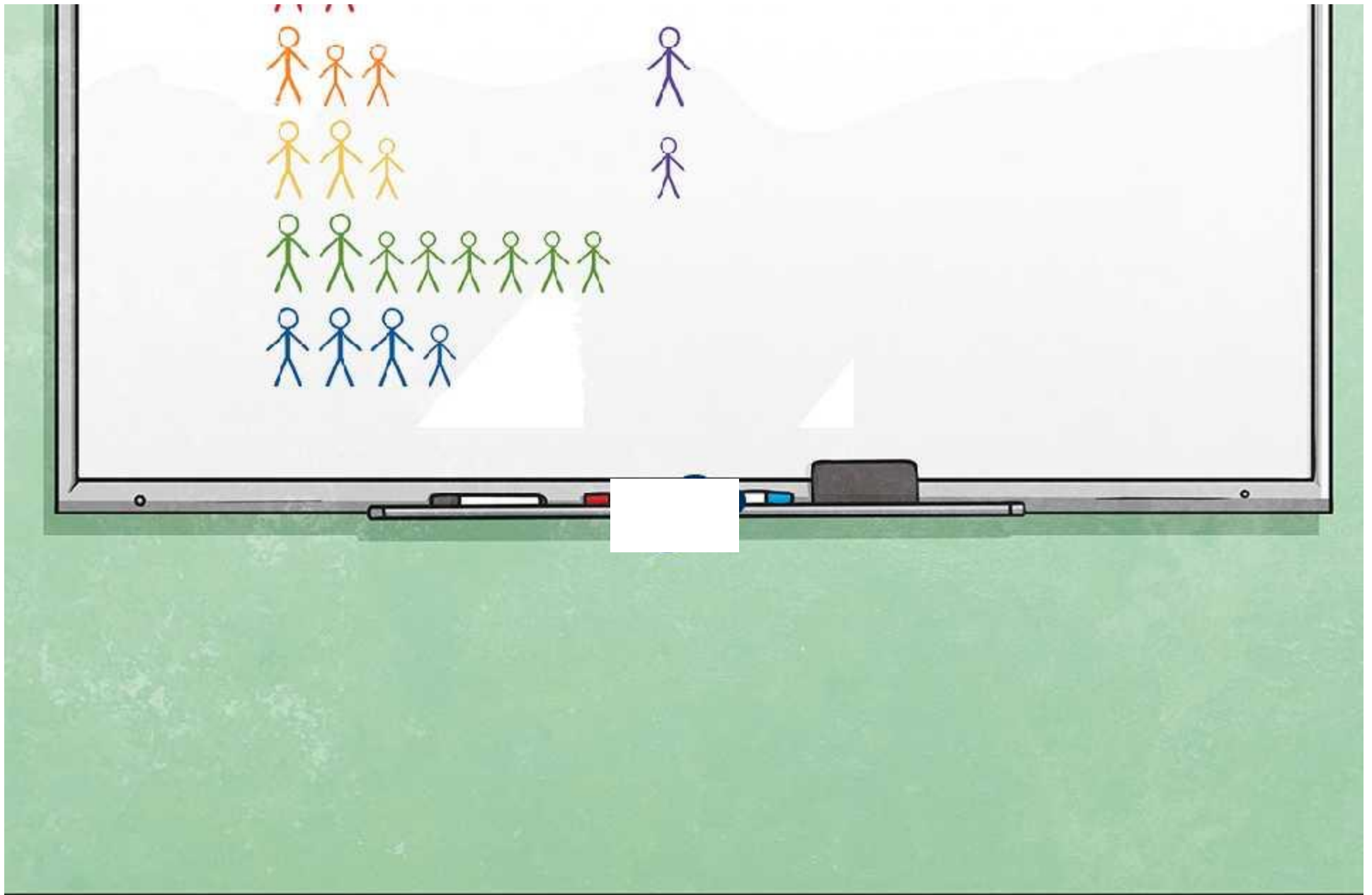
Food	Number of children
Apple	10
Banana	5
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Pineapple	12
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14 How many children like to eat each of these foods? Complete the table and draw a bar chart.

Food	Number of children
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15 How many children like to eat each of these foods? Complete the table and draw a bar chart.

Food	Number of children
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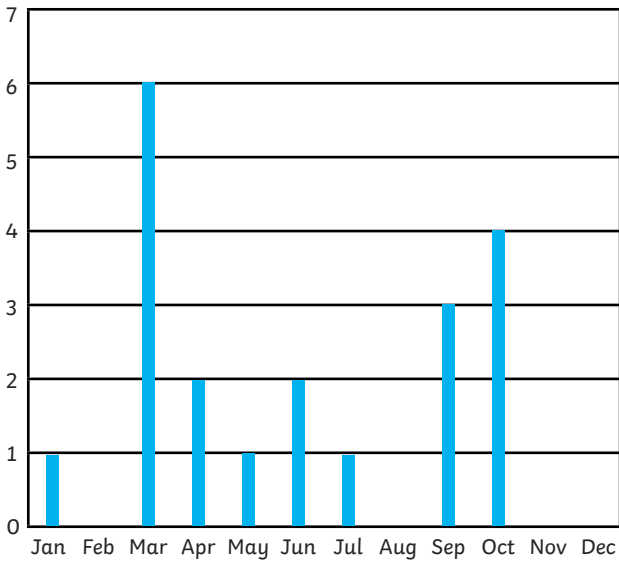


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August	
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October	
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Total	29

Birthdays in Our Class

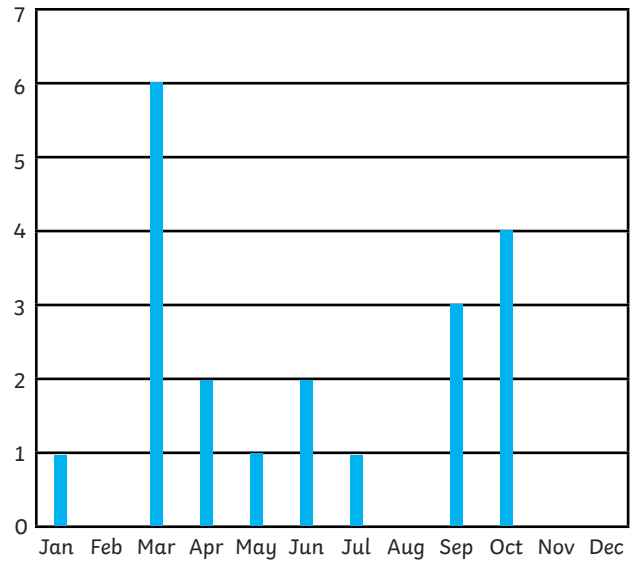


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Birthdays in Our Class



- 1) Amir wants to present the birthdays of everyone in his school. Should he use a bar chart or pictogram to record this information? Explain why in your book.



Month	Number of Girls	Number of Boys
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December	17	20

- 2) In your book or on squared paper, record the birthdays in Amir's school using your chosen method. Remember you will need to show boys and girls on the chart together.

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- 1) Carla has drawn this pictogram to show the days of the week when children in her school had birthday parties.

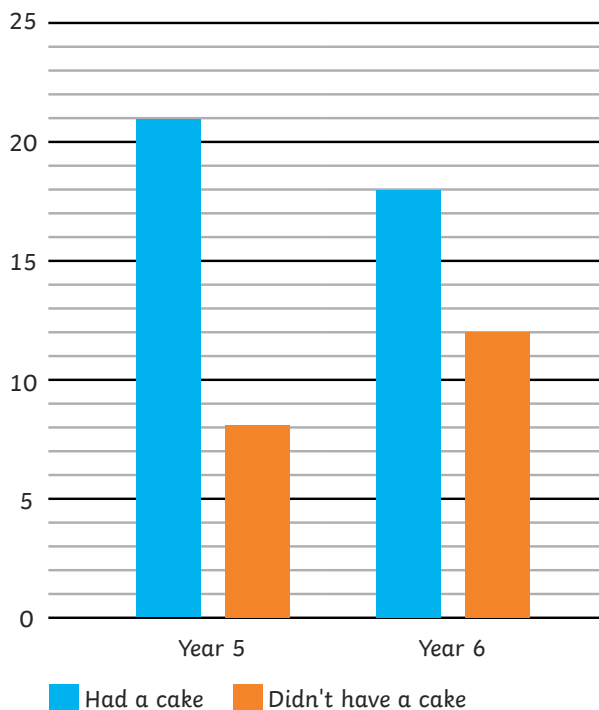


In your book, write how she could improve her pictogram.

Day 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:

- How many children are there in year 5?
- How many children did not have a birthday cake?
- How many more children had a cake than didn't?
- Write two of your own questions that can be answered using this bar chart.
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