Homework/Extension
Step 1: Pictograms

National Curriculum Objectives:

Mathematics Year 3: (3S1) Interpret and present data using bar charts, pictograms and tables

Mathematics Year 3: (3S2) Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Identify the statements that describe the pictogram correctly. Images represented with the same value of 1, 2, 5 or 10, no use of half pictures.
Expected Identify the statements that describe the pictogram correctly. Images represented with the same value within one graph, including half pictures.
Greater Depth Identify the statements that describe the pictogram correctly. Different images represented with different values. Graph includes half and quarter pictures.

Questions 2, 5 and 8 (Varied Fluency)
Developing Read the statements and identify the mistakes made in the pictogram. Images represented with the same value of 1, 2, 5 or 10, no use of half pictures.
Expected Read the statements and identify the mistakes made in the pictogram. Images represented with the same value within one graph, including half pictures.
Greater Depth Read the statements and identify the mistakes made in the pictogram. Different images represented with different values. Graph includes half and quarter pictures.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Investigate the values of the data using the facts given. Images represented with the same value of 1, 2, 5 or 10, no use of half pictures.
Expected Investigate the values of the data using the facts given. Images represented with the same value, including half pictures.
Greater Depth Investigate the values of the data using the facts given. Different images represented with different values. Graph includes half and quarter pictures.

More Year 3 Statistics resources.

Did you like this resource? Don't forget to review it on our website.

Pictograms

1. Tick the statements that describe the pictogram correctly.

Class	Number of children
Pine	👓👓👓
Oak	👓👓
Beech	👓
Cherry Blossom	👓👓👓👓

Key: 👓 = 2 children

A.	4 children wear glasses in Beech class.	
B.	8 children wear glasses in Cherry Blossom class.	
C.	4 more children wear glasses in Cherry Blossom class than Oak class.	
D.	3 children wear glasses in Pine class.	

VF HW/Ext

2. Neil has completed the pictogram below using the statements.

Days	Number of children
Monday	🍱🍱🍱🍱🍱🍱
Tuesday	🍱🍱
Wednesday	🍱🍱
Thursday	🍱🍱🍱🍱🍱🍱🍱

Key: 🍱 = 5 children

- 35 children had school dinners on Thursday.
- Only 20 children had school dinners on Monday.
- On Wednesday, only 15 children had school dinners.
- 10 more children had school dinners on Tuesday than on Wednesday.

Find the mistakes he has made when creating the pictogram.

VF HW/Ext

3. Betty is collecting data to identify the total points in each team. She spilt paint on her pictogram but remembers the facts.

Team	Number of children
Gotter	🔵🔵🔵🔵🔵🔵🔵
Heasley	🔵🔵🔵🔵🔵🔵
Tranger	🔵🔵🔵
Ralfoy	🔵🔵🔵

Key: 🔵 = 10 children

Team Ralfoy had the lowest number of points. Team Tranger had the highest number of points but was not higher than 100.

Explore the possibilities and complete the pictogram.

RPS HW/Ext

Pictograms

4. Tick the statements that describe the pictogram correctly.

Music Genre	Number of people
Jazz	♩ ♩ ♩ ♩ ♩
Classical	♩ ♩ ♩
R&B	♩ ♩ ♩ ♩
Rock	♩ ♩

Key: ♩♩ = 4 people

A.	Half the number of people that like R&B like rock.	
B.	Only 20 people like jazz.	
C.	More people prefer rock music than classical music.	
D.	The two most popular genres are jazz and R&B.	

E

VF
HW/Ext

5. Dane has completed the pictogram below using the statements.

Days	Number of tickets sold
Thursday	TICKET TICKET TICKET TICKET TIC
Friday	TICKET TICKET TICKET TICKET TICKET TICKET TIC
Saturday	TICKET TICKET TICKET TICKET TICKET TICKET TICKET
Sunday	TICKET TICKET TICKET TICKET TICKET TIC

Key: TICKET = 10 people

Find the mistakes he has made when creating the pictogram.

65 tickets were sold on Friday.

Half the number of tickets sold on Saturday were sold on Thursday.

Only 60 tickets were sold on Saturday.

10 fewer tickets were sold on Sunday than on Friday.

E

VF
HW/Ext

6. Hammad is collecting data to identify the favourite burger of pupils in KS2. He spilt juice on his pictogram but remembers the facts.

Burger	Number of children
Chicken	🍔 🍔 🍔 🍔 🍔 🍔 🍔
Veggie	🍔 🍔 🍔 🍔
Beef	🍔 🍔 🍔
Cheese	🍔 🍔 🍔

Key: 🍔 = 4 children

Beef was the most popular, but no more than 40 children liked it. Cheese was the third most popular burger.

Explore the possibilities and complete the pictogram.

E

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Homework/Extension – Pictograms – Year 3 Expected

Pictograms

7. Tick the statements that describe the pictogram correctly.

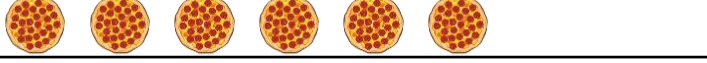| Animal	Number of people
Shark	🐟 🐟 🐟 🐟
Blue Whale	🐟 🐟 🐟
Dolphin	🐟 🐟 🐟 🐟
Killer Whale	🐟 🐟 🐟 🐟 🐟 🐟

Key: 🐟 = 2 people   🐟 = 4 people

A.	Half as many people like sharks as killer whales.	
B.	There is a difference of one person between the first and second most popular animals.	
C.	The least popular animal is the blue whale.	
D.	The total of the most and least popular sea animal is 20.	

GD

VF
HW/Ext

8. Ryan has completed the pictogram below using the statements.

Fast Food	Number of people
Burger	🍕 🍕 🍕 🍕 🍕 🍕 🍕 🍕 🍕
Fish	🍔 🍔 🍔 🍔 🍔 🍔 🍔 🍔 🍔
Pizza	🍕 🍕 🍕 🍕 🍕 🍕
Chicken	🍔 🍔 🍔 🍔 🍔 🍔 🍔 🍔

Key: 🍔 = 2 people   🍕 = 8 people

Find the mistakes he has made when creating the pictogram.

- 3 times as many people like pizza as chicken.
- The number of children who like pizza best is 48.
- 24 more children like burgers better than pizza.
- Fish was the least favourite fast food.

GD

VF
HW/Ext

9. Becky is collecting data to identify the favourite festival of pupils in KS2. She spilt ink on her pictogram but remembers the facts.

Festival	Number of pupils
Eid	🪔 🪔 🪔 🪔
Diwali	🪔 🪔
Hanukah	🕎 🕎
Christmas	🕎 🕎 🕎

Key: 🕎 = 3 people   🪔 = 6 people

Eid was the most popular festival and had at least 9 more pupils than the second most popular. More pupils chose Diwali than Hanukah. Christmas had six less pupils than Hanukah.

Explore the possibilities and complete the pictogram.

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Homework/Extension – Pictograms – Year 3 Greater Depth

Developing
1. **B and C**
2. **Neil has made mistakes with Monday and Tuesday's data. 20 children had school dinners on Monday (not 30) and 25 children had school dinners on Tuesday (not 10).**
3. **Various answers, for example: Team Ralfoy = 60 and Team Tranger = 90.**

Expected
4. **A and D**
5. **Dane has made mistakes with Thursday and Saturday's data. 60 tickets were sold on Saturday (not 70) and 30 tickets were sold on Thursday (not 45).**
6. **Various answers, for example: Beef = 38 and Cheese = 20.**

Greater Depth
7. **B and D**
8. **Ryan has made mistakes with the data for burgers and fish. There should be 72 people for burgers (not 66) and less than 16 people for fish (not 17).**
9. **Various answers, for example: Eid has 45, Diwali has 33, Hanukah has 21 and Christmas has 15.**