Pictographs
Grade 1

Name: _____ **Date:** _____

🎯 Section A: Reading Pictographs

Part 1: Favorite Sports in Class

Pictograph:

Soccer 

Basketball 

Tennis 

Swimming 

Baseball 

Key: Each picture = 1 student

Questions (2 marks each):

1. How many students like soccer? _____
2. How many students like swimming? _____
3. Which sport is the most popular? _____
4. Which sport is the least popular? _____
5. How many more students like soccer than swimming? _____
6. How many students like basketball and tennis altogether? _____
7. How many fewer students like swimming than baseball? _____
8. What is the total number of students who voted? _____
9. If 3 more students vote for tennis, how many would like tennis? _____
10. Which two sports have a difference of 2 students? _____

Section B: Analyzing Complex Pictographs

Part 2: Fruits Sold at Market This Week

Pictograph:

Monday 

Tuesday 

Wednesday 

Thursday 

Friday 

Saturday 

Sunday 

Key: Each  = 1 basket of apples

Questions (3 marks each):

11. On which day were the most apples sold? _____
12. On which day were the fewest apples sold? _____
13. How many baskets were sold on Friday? _____
14. What is the difference between Saturday and Tuesday sales? _____
15. How many baskets were sold on Monday and Sunday together? _____
16. How many more baskets were sold on Wednesday than Thursday? _____
17. What is the total number of baskets sold from Monday to Wednesday? _____
18. If the shop sold 5 more baskets on Thursday, how many would that be? _____
19. Which day sold exactly 7 baskets? _____
20. What is the total number of baskets sold for the whole week? _____

🎨 Section C: Creating Pictographs

Part 3: Make Your Own Pictograph

Data: Children in the park counted vehicles:

- Cars: 9
- Bikes: 6
- Buses: 3
- Motorcycles: 7

Task: Create a pictograph using the symbols below. Draw the correct number of symbols for each vehicle. (5 marks)

Cars _____

Bikes _____

Buses _____

Motorcycles _____

Symbols to use: 🚗 for cars, 🚲 for bikes, 🚌 for buses, 🏍️ for motorcycles

Key: Each picture = 1 vehicle

Questions about YOUR pictograph:

21. Which vehicle was seen the most? _____
22. Which vehicle was seen the least? _____
23. How many more cars than buses were counted? _____
24. What is the total number of vehicles counted? _____
25. How many fewer bikes than cars were there? _____

🌟 Section D: Comparison Questions

Part 4: Books Read by Students

Pictograph:

Emma 📚📚📚📚📚📚📚📚📚

Liam 📚📚📚📚📚📚

Ava 📚📚📚📚📚📚📚📚📚📚📚

Noah 📚📚📚📚📚

Mia 📚📚📚📚📚📚📚📚

Key: Each 📚 = 1 book

Advanced Questions:

26. Who read the most books? _____
27. Who read the fewest books? _____
28. How many books did Emma and Liam read together? _____
29. How many more books did Ava read than Noah? _____
30. If Noah reads 3 more books, will he have more than Liam? _____
31. What is the difference between the most and least books read? _____
32. How many students read more than 7 books? _____
33. How many books did all students read in total? _____
34. How many more books does Mia need to read to match Ava? _____
35. If Emma reads 2 more books, how many will she have? _____

🏆 BONUS CHALLENGE SECTION

Part 5: Mystery Pictograph

Pictograph:

Group A ⭐⭐⭐⭐⭐⭐⭐

Group B ⭐ ⭐ ⭐ ⭐ ⭐

Group C ⭐ ⭐ ⭐ ⭐ ⭐ ⭐ ⭐ ⭐ ⭐

Group D ⭐ ⭐ ⭐ ⭐

Key: Each ⭐ = 2 points

Challenging Questions:

36. How many points does Group A have? _____ *(Remember: each star = 2 points!)*
37. How many points does Group C have? _____
38. What is the total number of points for all groups? _____
39. How many more points does Group C have than Group D? _____
40. If Group B earns 4 more points, how many stars will they have? _____

🎯 **Section E: Problem Solving with Pictographs**

Part 6: Cookie Sales for Charity

Pictograph:

Chocolate Chip 

Oatmeal 

Peanut Butter 

Sugar Cookie 

Gingerbread 

Key: Each  = 2 boxes sold

Problem-Solving Questions:

41. How many boxes of Chocolate Chip cookies were sold? _____ *(each cookie = 2 boxes)*
42. Which type of cookie sold the least number of boxes? How many boxes? Type: _____ Number of boxes: _____
43. What is the total number of boxes of Oatmeal and Sugar Cookie sold together? _____

44. If each box costs $5, how much money was made from Peanut Butter cookies? $_____

45. The class wants to sell 100 boxes total. How many boxes have they sold so far? Have they reached their goal? Boxes sold: _____ Goal reached: Yes / No

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🌈 Section F: Creating and Interpreting

Part 7: Weather for Two Weeks

Week 1:

Sunny 

Rainy 

Cloudy 

Week 2:

Sunny 

Rainy 

Cloudy 

Key: Each picture = 1 day

Comparison Questions:

46. Which week had more sunny days? How many more? Week: _____ More by: _____ days

47. How many rainy days were there in total across both weeks? _____

48. Which type of weather was most common in Week 2? _____

49. What is the total number of days recorded in both weeks? _____

50. In which week was the weather more varied (had closer numbers between weather types)? Week: _____ Explain: _____

🎪 Section G: Multi-Step Problem Solving

Part 8: School Fair Ticket Sales

Pictograph:

Bounce House 🎟 🎟 🎟 🎟 🎟 🎟 🎟 🎟 🎟 🎟

Face Painting 🎟 🎟 🎟 🎟 🎟 🎟 🎟

Ring Toss 🎟 🎟 🎟 🎟 🎟

Cookie Walk 🎟 🎟 🎟 🎟 🎟 🎟 🎟 🎟 🎟

Balloon Darts 🎟 🎟 🎟 🎟 🎟 🎟

Key: Each 🎟 = 3 tickets

Complex Questions:

51. How many tickets were sold for the Bounce House? _____
52. How many tickets were sold for Ring Toss? _____
53. Which activity sold the most tickets? How many tickets? Activity: _____ Tickets: _____
54. What is the difference in tickets between the most popular and least popular activity? _____
55. How many tickets were sold for Face Painting and Balloon Darts combined? _____
56. If each ticket costs $2, how much money did the Cookie Walk make? $_____
57. What is the total number of tickets sold for all activities? _____
58. The school wants to buy a new playground that costs $200. If each ticket is $2, did they make enough money? Money made: $_____ Enough money: Yes / No
59. How many more tickets does Ring Toss need to sell to match Face Painting? _____
60. If the Bounce House sells 6 more tickets tomorrow, how many ticket symbols will it have? _____

🔍 Section H: Error Detection

Part 9: Find the Mistakes!

Pictograph with Errors:

Title: Favorite Ice Cream Flavors

Vanilla 

Chocolate 

Strawberry 

Mint 

Questions:

61. What is missing from this pictograph? _____
62. What is wrong with the Vanilla row? _____
63. If the data says 4 students like Mint, how many ice cream symbols should there be? _____
64. Rewrite the Vanilla row correctly with proper spacing: Vanilla _____
65. Why is it important to space pictures evenly in a pictograph?

Section I: Design Your Own

Part 10: Complete Pictograph Creation

Data Given: Your class collected canned foods for charity:

- Monday: 8 cans
- Tuesday: 5 cans
- Wednesday: 10 cans
- Thursday: 6 cans
- Friday: 12 cans

Task: Create a complete pictograph with ALL required parts (30 marks)

Your Pictograph:

Title: _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Key: _____

Self-Check Questions:

66. Did you include a title? Yes / No
67. Did you label each row? Yes / No
68. Are your pictures the same size and evenly spaced? Yes / No
69. Did you include a key? Yes / No
70. Are your pictures in straight rows? Yes / No

📝 Section J: Written Response

Part 11: Explain Your Thinking

Look at this pictograph:

Dogs in Neighborhood

Max 🐕 🐕 🐕

Buddy 

Luna 

Charlie 

Rocky 

Key: Each  = 1 walk this week

Written Questions:

71. Which dog was walked the most? Explain how you know.

72. If you wanted to find out how many more times Buddy was walked than Luna, what would you do? Show your work.

73. Write a word problem that could be answered using this pictograph.

74. Why are pictographs helpful? Give two reasons. Reason 1: _____ Reason 2: _____

75. If you were making a pictograph about your favorite things, what would you count and why?

📋 ANSWER KEY

Section A: Reading Pictographs

1. 8 students
2. 4 students
3. Soccer
4. Swimming
5. 4 more students (8 - 4 = 4)
6. 11 students (5 + 6 = 11)
7. 3 fewer students (7 - 4 = 3)
8. 30 students (8 + 5 + 6 + 4 + 7 = 30)
9. 9 students (6 + 3 = 9)
10. Basketball and Baseball (5 and 7, difference of 2) OR Tennis and Soccer (6 and 8, difference of 2)

Section B: Analyzing Complex Pictographs

11. Saturday
12. Tuesday
13. 10 baskets
14. 8 baskets (12 - 4 = 8)
15. 13 baskets (6 + 7 = 13)
16. 3 more baskets (8 - 5 = 3)
17. 18 baskets (6 + 4 + 8 = 18)
18. 10 baskets (5 + 5 = 10)
19. Sunday
20. 52 baskets (6 + 4 + 8 + 5 + 10 + 12 + 7 = 52)

Section C: Creating Pictographs

Pictograph should show:

- Cars: 🚗 🚗 🚗 🚗 🚗 🚗 🚗 🚗 🚗 (9 cars)
- Bikes: 🚲 🚲 🚲 🚲 🚲 🚲 (6 bikes)
- Buses: 🚌 🚌 🚌 (3 buses)
- Motorcycles: 🏍️ 🏍️ 🏍️ 🏍️ 🏍️ 🏍️ 🏍️ (7 motorcycles)

21. Cars

22. Buses

23. 6 more cars (9 - 3 = 6)

24. 25 vehicles (9 + 6 + 3 + 7 = 25)

25. 3 fewer bikes (9 - 6 = 3)

Section D: Comparison Questions

26. Ava

27. Noah

28. 15 books (9 + 6 = 15)

29. 6 more books (11 - 5 = 6)

30. Yes (5 + 3 = 8, which is more than 6)

31. 6 books (11 - 5 = 6)

32. 3 students (Emma - 9, Ava - 11, Mia - 8)

33. 39 books (9 + 6 + 11 + 5 + 8 = 39)

34. 3 more books (11 - 8 = 3)

35. 11 books (9 + 2 = 11)

BONUS CHALLENGE SECTION

36. 14 points (7 stars × 2 = 14)

37. 18 points (9 stars × 2 = 18)

38. 50 points [(7×2) + (5×2) + (9×2) + (4×2) = 14 + 10 + 18 + 8 = 50]

39. 10 more points (18 - 8 = 10)

40. 7 stars (5 stars + 2 more stars = 7 stars) *Note: 4 points = 2 stars*

Section E: Problem Solving

41. 16 boxes (8 cookies × 2 = 16)
42. Type: Gingerbread, Number: 8 boxes (4 cookies × 2 = 8)
43. 22 boxes [(5×2) + (6×2) = 10 + 12 = 22]
44. $70 (7 cookies × 2 boxes = 14 boxes, 14 × $5 = $70)
45. Boxes sold: 60 boxes [(8+5+7+6+4) × 2 = 30 × 2 = 60], Goal reached: No

Section F: Creating and Interpreting

46. Week: Week 1, More by: 2 days (5 - 3 = 2)
47. 6 days (2 + 4 = 6)
48. Cloudy (6 days)
49. 14 days (Week 1: 5+2+3=10, Week 2: 3+4+6=13, but only 7 days per week, so 14 total)
50. Week: Week 2, Explain: The numbers are closer (3, 4, 6 vs 5, 2, 3) OR varied responses accepted

Section G: Multi-Step Problem Solving

51. 30 tickets (10 symbols × 3 = 30)
52. 15 tickets (5 symbols × 3 = 15)
53. Activity: Bounce House, Tickets: 30
54. 15 tickets (30 - 15 = 15)
55. 39 tickets [(7×3) + (6×3) = 21 + 18 = 39]
56. $54 (9 symbols × 3 = 27 tickets, 27 × $2 = $54)
57. 111 tickets [(10+7+5+9+6) × 3 = 37 × 3 = 111]
58. Money made: $222 (111 × $2 = $222), Enough: Yes
59. 6 tickets (21 - 15 = 6)
60. 12 symbols (10 + 2 = 12) *Note: 6 tickets = 2 symbols*

Section H: Error Detection

61. A key is missing / The title needs to explain what the numbers represent
62. The symbols are not evenly spaced / Some symbols are touching
63. 4 symbols (since each symbol = 1)
64. Vanilla  (5 symbols with even spacing)
65. So they are easy to count / So the pictograph looks neat / So we don't make counting mistakes (accept any reasonable answer)

Section I: Design Your Own

Student should create pictograph showing:

- Title: "Canned Foods Collected" or similar
- Monday: 8 can symbols
- Tuesday: 5 can symbols
- Wednesday: 10 can symbols
- Thursday: 6 can symbols
- Friday: 12 can symbols
- Key: Each (symbol) = 1 can

66-70: Student self-assessment (Yes for all if done correctly)

Section J: Written Response

71. Rocky was walked the most. I know because he has 6 dog symbols and that's more than any other dog. (Accept variations)
72. I would count how many dogs Buddy has (5) and how many Luna has (2), then subtract: 5 - 2 = 3. Buddy was walked 3 more times. (Accept clear explanations)
73. (Accept any reasonable word problem that can be solved using the data, such as: "How many times were all the dogs walked altogether?" or "How many more times was Charlie walked than Luna?")
74. Reason 1: They are easy to understand / They use pictures instead of just numbers
Reason 2: They help us see differences quickly / They make counting fun / They tell a story (Accept any two reasonable explanations)

75. (Accept any reasonable answer with explanation, such as: "I would count my stickers because I have a lot and want to see how many of each type" or "I would count books I read because I want to track my reading")
