Reasoning and Problem Solving
Step 4: Read and Interpret Tables

National Curriculum Objectives:

Mathematics Year 5: (5S1) Complete, read and interpret information in tables, including timetables

Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Create two questions about data in a table. Includes whole numbers up to 6 digits. Questions involve direct data retrieval.
Expected Create three questions about data in a table. Includes numbers up to 6 digits and some decimal numbers with one decimal place. Questions involve mostly direct data retrieval with some multi-step interpretation. Data given in same measurement.
Greater Depth Create three questions about data in a table. Includes numbers up to 6 digits and some decimal numbers with one decimal place. Questions involve mostly direct data retrieval with some multi-step interpretation. Data given in different measurements.

Questions 2, 5 and 8 (Reasoning)
Developing Explain whether a comparison made about data in a table is correct. Includes whole numbers up to 6 digits. Questions involve direct data retrieval.
Expected Explain whether a comparison made about data in a table is correct. Includes numbers up to 6 digits, some numbers with one decimal place and some multi-step interpretation.
Greater Depth Explain whether a comparison made about data in a table is correct. Includes numbers up to 6 digits, some numbers with one decimal place and some multi-step interpretation with some conversion of units.

Questions 3, 6 and 9 (Reasoning)
Developing Prove whether a conclusion about data in a chart is correct. Includes whole numbers up to 6 digits and direct data retrieval.
Expected Prove whether a conclusion about data in a chart is correct. Includes whole numbers up to 6 digits, some numbers with one decimal place and some multi-step interpretation.
Greater Depth Prove whether a conclusion about data in a chart is correct. Includes whole numbers up to 6 digits and some numbers with one decimal place. Multistep interpretation and conversion between km and m is required.

More Year 5 Statistics resources.

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

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1a. The table below shows visitor numbers to three museums over three months.

	Science Museum	History Museum	Mining Museum
July	4,213	3,297	2,522
August	15,176	14,677	14,148
September	4,605	3,372	2,410

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

PS

1b. The table below shows visitor numbers to three attractions over three months.

	Digger World	Lulu and Friends	Water Mania
January	1,790	1,291	2,076
February	15,121	14,999	16,712
March	2,101	1,923	1,022

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

PS

2a. The table below shows the monthly earnings (£) of two people.

	Month 1	Month 2	Month 3
Zoe	1,466	1,674	1,211
Kristoff	1,454	1,675	1,201

In month 3, Zoe earned £9 more than Kristoff. Do you agree? Prove it.

R

2b. The table below shows the monthly earnings (£) of two people.

	Month 1	Month 2	Month 3
Tasneem	2,184	2,213	2,192
Orla	2,084	2,344	2,103

In month 1, Orla earned £1,000 less than Tasneem. Do you agree? Prove it.

R

3a. Penny records the number of cars that drive through different towns.

	Week 1	Week 2	Week 3
Kington	2,167	2,215	2,519
Dunwich	3,001	3,210	2,913
Mossley	1,865	1,748	2,109

Kington had the most traffic in week 3.

Penny

Do you agree with Penny? Why?

R

3b. Leo records how many people pass through two underground stations.

	Westminster	Covent Garden
Men	2,899	2,788
Women	2,778	2,892
Children	4,254	4,875

Fewer men passed through Covent Garden than women passed through Westminster.

Leo

Do you agree with Leo? Why?

R

Read and Interpret Tables

4a. The table below shows the number of minutes spent on different activities by five children in a year.

	TV	Playing out	Eating
Amina	61, 213	11,744	29,866.5
Gerry	19,677.5	35,700	21,955
Collette	21,202	21,309.5	18,232
Sophie	34,861	23,439	19,899.5
Finn	21,345	44,232	24,431

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

☆ E

PS

4b. The table below shows the number of minutes spent on different activities by five children in a year.

	Washing	Homework	Sleeping
Maria	7,300	5,850.5	175,211
William	6,552	3,911	198,323
Layla	8,811.5	8,322	182,544
Saad	7,321	10,543	201,423
Ruka	5,754	3,275.5	218,231

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

☆ E

PS

5a. The table below shows the fastest speeds (km/h) recorded over three races.

	Race 1	Race 2	Race 3
Louis Hamilstone	262.2	241.3	236.7
Seb Jettel	261.5	215.5	231.1
Juan Shoemaker	259.9	240.4	232.7

In race 2, the slowest speed was 241.3km/h. Do you agree? Prove it.

☆ E

R

5b. The table below shows the fastest speeds (km/h) recorded over three races.

	Race 1	Race 2	Race 3
Zip Johnson	211.2	228.7	241.1
Danny Culsoft	255.1	261.1	233.6
Barry Zoomer	255.2	261.6	241.5

In race 3, the fastest speed was 241.1km/h. Do you agree? Prove it.

☆ E

R

6a. Holly records the number of vehicles crossing a bridge over three weeks.

	Week 1	Week 2	Week 3
Cars	139,866	144,565	122,522
Bikes	2,879	3,098	2,899
Lorries	32,144	26,876	34,223

> **Week 2 had the most traffic.**

Holly

Do you agree with Holly? Why?

☆ E

R

6b. Zain records how many people visit a museum over three years.

	Year 1	Year 2	Year 3
Men	154,610	159,175	203,366
Women	159,244	211,292	199,420
Children	221,854	256,129	283,321

> **More women than men visited the museum.**

Zain

Do you agree with Zain? Why?

☆ E

R

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Reasoning and Problem Solving – Read and Interpret Tables – Year 5 Expected

Read and Interpret Tables

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!

GD

PS

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

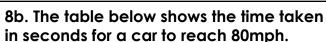|	Wingspan (m)	Weight (kg)	Dive Speed (km/h)
Golden Eagle	2.3	6.3	241
Peregrine Falcon	1.2	1.5	389
Brown Pelican	1.2	5.5	48
Red-throated Diver	1.1	1.6	78

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

GD

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.

GD

R

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

	1st attempt	2nd attempt	3rd 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.

GD

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

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

Keeley

Do you agree with Keeley? Why?

GD

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

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

Stan

Do you agree with Stan? Why?

GD

R

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Reasoning and Problem Solving – Read and Interpret Tables – Year 5 Greater Depth

Developing

1a. Various answers, for example:
True or false? The Science museum had more visitors over three months than the History museum. True, it had 2,648 more visitors.
2a. No, Zoe earned £10 more than Kristoff (£1,211 – £1,201 = £10).
3a. Penny is incorrect. Dunwich had the most traffic in week 3 with 2,913 cars.

Expected

4a. Various answers, for example:
True or false? Altogether, Finn spends 65,577 minutes watching TV and playing out. True, 21,345 + 44,232 = 65,577.
5a. No, 241.3km/h was the fastest speed in race 2.
6a. Holly is incorrect. Week 1 had the most traffic with 174,899 vehicles, compared with 174,539 in Week 2.

Greater Depth

7a. Various answers, for example:
True or false? The black widow is the smallest spider on the table. False, the black widow is one of the smallest in weight, but its leg span is longer than that of the wolf spider.
8a. No, Michael Johnson also finished in under a minute (58.9 seconds).
9a. Keeley is incorrect because route 2 has a total distance of 116,000m and route 3 has a total distance of 118,200km.

Developing

1b. Various answers, for example:
True or false? Digger World had 2,086 more visitors than Water Mania. False, Digger World had 798 fewer visitors.
2b. No, Orla earned £100 less than Tasneem (£2,184 – £2,084 = £100).
3b. Leo is incorrect. 2,788 men passed through Covent Garden, but 2,778 women passed through Westminster.

Expected

4b. Various answers, for example:
True or false? Saad spends 27,212 more minutes sleeping than Maria. False, he spends 26,212 more minutes sleeping than Maria.
5b. No, the fastest speed was 241.5km/h in race 3.
6b. Zain is correct. 517,151 men visited the museum, but there were 569,956 visits from women.

Greater Depth

7b. Various answers, for example:
True or false? The Peregrine Falcon is the largest and fastest bird on the table. False, although the Peregrine Falcon is the fastest, the Golden Eagle is larger in wingspan and weight.
8b. Yes, Car 3's total was 39 seconds and Car 2's total was 39.4 seconds. There is 0.4 seconds between their total speeds.
9b. Stan is incorrect because Cut Costs has a total distance 26km which is more than the distance to Pet Power of 23km.

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Reasoning and Problem Solving – Read and Interpret Tables ANSWERS