Reasoning and Problem Solving
Step 6: Timetables

National Curriculum Objectives:

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

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Explain whether a statement is true or false using the information given. Timetables at 5-minute intervals, not crossing an hour. Use of the 12-hour clock only.
Expected Explain whether a statement is true or false using the information given. Timetables at 1-minute intervals using a 12-hour clock, with some crossing over the hour.
Greater Depth Explain whether a statement is true or false using the information given. timetables at 1-minute intervals, with times crossing over the hour. Use of 12 and 24-hour clocks.

Questions 2, 5 and 8 (Problem Solving)
Developing Use the timetable and information given to work out which events can be attended in a set amount of time. Timetables at 5-minute intervals, not crossing an hour. Use of the 12-hour clock only.
Expected Use the timetable and information given to work out which events can be attended in a set amount of time. Timetables at 5-minute intervals using a 12-hour clock, with some crossing over the hour.
Greater Depth Use the timetable and information given to work out which events can be attended in a set amount of time. Timetables at 5-minute intervals, with times crossing over the hour. Use of 12 and 24-hour clocks.

Questions 3, 6 and 9 (Reasoning)
Developing Explain if a statement is correct. Timetables at 5-minute intervals, not crossing an hour. Use of the 12-hour clock only.
Expected Explain if a statement is correct. Timetables at 1-minute intervals using a 12-hour clock, with some crossing over the hour.
Greater Depth Explain if a statement is correct. Timetables at 1-minute and 5-minute intervals, with times crossing over the hour. Use of 12 and 24-hour clocks.

More Year 5 Statistics Resources.

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

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Timetables

1a. True or false?

Ethan is in Class 3. He will have 10 minutes between the relay and discus.

	Long Jump	Relay	Discus
Class 1	09:00	09:10	09:15
Class 2	09:15	09:30	09:00
Class 3	09:30	09:20	09:05
Class 4	09:30	09:40	09:50
Class 5	09:45	09:55	09:20

Explain your answer.

D R

1b. True or false?

Jessica will arrive at Old Town 20 minutes later than planned if she misses the 05:10 bus from the Town Hall.

Stadium	-----	05:00	05:05	05:10
Market Place	05:00	------	------	05:15
Town Hall	05:05	------	05:10	05:20
Bus Station	05:20	------	05:25	05:30
Old Town	05:25	05:35	05:30	05:35
Train Station	05:35	05:40	05:30	05:45

Explain your answer.

D R

2a. Sam goes to an aquarium at 3:10pm. He has 45 minutes before he has to go home.

Which shows can he visit in this time?

Indoor Shows		Outdoor Shows	
3:10-3:15	Sharks	3:10-3:20	Seals
3:15-3:40	Rainbow Fish	3:20-3:30	Sealions
3:40-3:50	Turtles	3:30-3:40	Penguins
3:50-4:00	Octopus	3:40-3:45	Otters

Find different possibilities.

D PS

2b. Rachel visits a theme park at 3pm. Her mum is picking her up in 50 minutes.

Which rides can she visit in this time?

Small Rides		Big Rides	
3:00-3:10	Teacups	3:00-3:20	Tower Jump
3:10-3:25	Carousel	3:20-3:25	Wave Swing
3:30-3:45	Swing Boat	3:25-3:40	Rollercoaster
3:45-3:50	Tiny Train	3:40-3:55	Big Wheel

Find different possibilities.

D PS

3a. Adam is planning his journey from York to Leeds. He thinks the 02:25 train will get him there the quickest.

Beverley	02:15	02:10	02:15	02:20
York	------	02:20	02:25	02:30
Micklefield	02:35	------	------	02:35
Garforth	02:45	02:35	------	02:45
Cross Gates	------	02:45	------	02:55
Leeds	02:50	02:55	02:55	-----

Is he correct? Explain your answer.

D R

3b. This is part of the parents' evening timetable for Class 5. Susan thinks she might have made a mistake.

	PE	History	Music	Head
Susan	05:00	05:30	05:15	05:30
Rose	05:05	05:10	05:30	05:40
Kate	05:10	05:00	05:40	05:20
Bruce	05:30	05:40	05:15	05:50

Is she correct? Explain your answer.

D R

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Timetables

4a. True or false?

Isla is in Class 4. She will have 7 minutes between the javelin and the sprint.

	Sprint	Sack Race	Javelin
Class 1	09:00	09:31	09:24
Class 2	09:12	09:00	09:31
Class 3	09:18	09:12	09:00
Class 4	09:24	09:18	09:12
Class 5	09:31	09:24	09:18

Explain your answer.

E R

5a. Noah goes to the activity centre at 4pm. He has 1 hour and 30 minutes before he has to go home.

Which activities can he do in this time?

Hall A		Hall B	
4:10-4:35	Bowling	3:50-4:35	Badminton
4:35-5:15	Climbing	4:35-4:45	Table Tennis
5:15-5:30	Mini Golf	4:45-5:00	Laser-tag
5:30-5:50	Abseiling	5:00-5:15	Paintballing

Find different possibilities.

E PS

6a. Euan is planning his journey from Meadowhall to the bus station. He thinks the 07:26 train will get him there the quickest.

Sheffield	07:01	07:14	07:32	07:51
Meadowhall	------	07:26	07:45	08:06
Doncaster	07:55	------	------	08:28
Leeds	08:19	08:47	------	09:13
Bradford	------	09:22	------	09:49
Bus Station	09:16	09:43	09:35	10:34

Is he correct? Explain your answer.

E R

Timetables

4b. True or false?

Frankie will arrive in Manchester 40 minutes later than planned if he misses the 08:10 bus from the bus station.

Bus Station	08:02	08:10	08:18	08:26
Leeds Road	08:11	------	------	08:35
Shopping Village	08:19	------	08:36	08:43
High Street	08:52	------	09:11	09:18
Manchester	09:17	09:04	-----	09:44
Train Station	09:33	09:17	09:41	09:59

Explain your answer.

E R

5b. Leanne visits an after school club at 3:30. She is getting picked up by her dad in 1 hour and 50 minutes.

Which sessions can she attend in this time?

Club List 1		Club List 2	
3:30-4:15	Craft	3:30-4:25	Football
4:20-5:05	Gardening	4:25-4:45	Zumba
5:10-5:20	Dance	4:45-5:05	Reading
5:20-6:00	Film Club	5:10-5:20	Yoga

Find different possibilities.

E PS

6b. This is part of the parents' evening timetable for Class 12. Archie thinks he might have made a mistake.

	English	Maths	Science	Head
Logan	04:00	04:24	04:16	04:08
Archie	04:16	04:00	04:24	04:16
Ivy	04:16	04:08	04:00	04:24
Florence	04:24	04:16	04:08	04:00

Is he correct? Explain your answer.

E R

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Timetables

7a. True or false?

Tommy is in Class 3. He will have 12 minutes between being in the sports hall and on the playground.

	Sports Hall	Field	Playground
Class 1	11:05	11:30	11:40
Class 2	11:12	11:25	11:00
Class 3	11:48	12:00	12:11
Class 4	12:25	11:40	12:00
Class 5	12:30	12:20	12:10

Explain your answer.

GD

R

8a. Dexter has 2 hours and 17 minutes left at the Fair. The time is 15:40.

Which activities can he visit in this time?

Stalls		Attractions	
15:40-16:05	Hook a Duck	15:40-16:20	Petting Zoo
16:05-16:35	Tombola	16:20-16:35	Bumper Cars
16:35-17:20	Coconut Shy	16:35-17:10	Silly House
17:20-6:00	Lucky Dip	17:15-17:45	Maze

Find different possibilities.

GD

PS

9a. Zak is planning his journey from Newcastle to Hartlepool. He thinks the 15:41 train will get him there the quickest.

Callerton	15:01	15:27	15:45	15:51
Newcastle	------	15:41	15:51	16:00
Heworth	15:13	------	------	16:18
Sunderland	15:36	16:02	------	16:29
Seaham	------	16:09	------	16:44
Hartlepool	16:16	16:25	16:30	16:53

Is he correct? Explain your answer.

GD

R

Timetables

7b. True or false?

Eliza will arrive at the Monument Street 27 minutes later than planned if she misses the 19:31 bus from King's Road.

Bus Station	18:56	19:10	19:24	19:34
King's Road	19:11	------	19:31	19:40
Castle	19:20	------	19:48	19:53
Monument Street	19:27	------	19:58	20:08
Train Station	19:38	19:44	------	20:20
Harbour	19:46	19:57	20:15	20:32

Explain your answer.

GD

R

8b. Annie has 1 hour and 36 minutes left at the Zoo. The time is 16:30.

Which shows can she visit in this time?

African Wonderland		Jungle Creatures	
16:30-17:05	Giraffes	16:30-17:15	Monkeys
17:10-17:20	Elephants	17:15-17:20	Snakes
17:20-17:55	Zebras	17:30-17:40	Jaguars
18:10-18:45	Lions	17:30-17:55	Parrots

Find different possibilities.

GD

PS

9b. This is part of the parents' evening timetable for Class 9, which ends at 5pm. Charlotte thinks she might have made a mistake.

	Art	ICT	RE	Head
Charlotte	16:10	16:20	16:00	17:20
Bobby	16:00	15:50	16:10	16:30
Charles	16:20	15:45	16:00	16:10
Sophie	16:30	16:15	16:40	16:50

Is she correct? Explain your answer.

GD

R

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Reasoning and Problem Solving Timetables

Developing

1a. False because he will have 15 minutes between the relay and discus.

2a. Various answers, for example: Sharks, Sealions, Penguins; Seals and Turtles; Seals, Sealions, Penguins

3a. Adam is correct as the only other train from York to Leeds takes 35 minutes.

Expected

4a. False because she will have 12 minutes between the javelin and the sprint.

5a. Various answers, for example: Bowling, Table Tennis, Laser-tag, Paintballing; Bowling and Climbing; Bowling, Table Tennis, Mini Golf

6a. Euan is incorrect because the 07:45 train will get him there in a quicker time of 1 hour and 50 minutes.

Greater Depth

7a. False because Tommy will have 23 minutes between being in the Sports Hall and on the Playground.

8a. Various answers, for example: Hook a Duck, Bumper Cars, Silly House, Maze; Hook a Duck, Tombola, Silly House, Maze; Petting Zoo and Coconut Shy

9a. Zak is incorrect because the 15:51 train will get him there in a quicker time of 39 minutes.

Reasoning and Problem Solving Timetables

Developing

1b. False because the next bus arrives at Old Town 5 minutes later.

2b. Various answers, for example: Teacups, Wave Swing, Swing Boat; Teacups, Carousel, Rollercoaster; Tower Jump, Swing Boat, Tiny Train

3b. Susan has made a mistake. She is meeting the History teacher and the Head at the same time (05:30). She is also meeting the Music teacher at the same time as Bruce. (05:15).

Expected

4b. True. The next train arrives at 09:44 which is 40 minutes after 09:04.

5b. Various answers, for example: Craft, Zumba, Reading, Yoga; Craft, Gardening, Yoga; Football and Dance

6b. Archie has made a mistake. He is meeting his English teacher and the Head at the same time (16:16). He is also meeting the English teacher at the same time as Ivy (16:16).

Greater Depth

7b. False because the next bus will arrive 10 minutes later.

8b. Various answers, for example: Giraffes, Snakes, Jaguars, Parrots; Monkeys and Zebras; Monkeys, Snakes and Zebras

9b. Charlotte has made a mistake. She is meeting her RE teacher at the same time as Charles (16:00). The time she is meeting the Headteacher (17:20) is also a mistake as the school closes at 5pm (17:00).

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