

TIME, DISTANCE & SPEED

MNU 4-10a

I can research, compare and contrast aspects of time and time management as they impact on me.

MNU 4-10b

I can use the link between time, speed and distance to carry out related calculations.

Pupils should be able to:

- Read and convert between am/pm and 24-hour notation
- Add and subtract times using am/pm and 24 hour notation.
- Calculate time difference in years, months and days using knowledge of the calendar.
- Extract information from timetables and calculate journey times.
- Know the Time-Distance-Speed relationships
- Convert hours and minutes to decimal form, and vice versa
- Solve problems involving time, distance, speed
- Interpret distance-time graphs and use them to calculate speeds.

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

	DEVELOPING	CONSOLIDATING	SECURE
Questions 1 to 3			
Questions 4 to 6			
Questions 7 to 9			
Questions 10 to 12			

SELF EVALUATION EXERCISE

1. What time would you arrive in Glasgow if you left St.Andrews at 0930 and the journey took 2 hours and 20 minutes?
2. What time would you leave Glasgow if you wish to return to St.Andrews by 2015?
3. Write 4.30 pm in 24 hour format.
4. Write 1727 hours in am/pm format.
5. How many hours and minutes between 10.30 am and 2.15 pm?
6. How many hours and minutes between 0135 and 1320?
7. How many hours in 3 days?
8. How many days between 20th May and 16th July including both days?
9. How long would it take to travel 11 miles at a speed of 40 miles per hour?
10. Write the following in decimal form: a) $2\frac{1}{4}$ hours b) $1\frac{3}{4}$ hours
11. Convert from decimal form to hours and minutes: a) 3.5 hours b) 4.66 hours
12. A bus arrives at St.Andrews just after 8.30 am. Using the following extract from the X60 Stagecoach timetable, calculate the average speed of the bus travelling between Elie and St.Andrews, a distance of 15 miles.

Edinburgh • Kirkcaldy • Leven • Anstruther • St Andrews X58 X60										
MONDAYS TO FRIDAYS										
route number	X60	X60	X60	X60	X60 NSch	X60 Sch	X58	X58	X60	X58
Edinburgh bus station	—	—	—	—	—	—	0725	0750	0825	0855
Barnnton Queensferry Road	—	—	—	—	—	—	0745	0812	0847	0917
Ferrytoll Park & Ride	—	—	—	—	—	—	0755	0822	0857	0927
Dalgety Bay rail station	—	—	—	—	—	—	▼	▼	0905	▼
Dalgety Bay Forth Reach	—	—	—	—	—	—	0804	0831	0936	1036
Dalgety Bay Meadowfield	—	—	—	—	—	—	0808	0835	0940	1040
Dalgety Bay Pentland Rise	—	—	—	—	—	—	0810	0837	▼	0942
Kirkcaldy bus station arr	—	—	—	—	—	—	0827	0855	0922	1000
Kirkcaldy bus station dep	—	—	—	—	—	—	0830	—	0927	1027
East Wemyss School Wynd	—	—	—	—	—	—	0845	—	0942	1042
Buckhaven College Street	—	—	—	—	—	—	0850	—	0947	1047
Leven bus station arr	—	—	—	—	—	—	0857	—	0955	1055
Leven bus station dep	0530	0600	0630	0700	0725	0725	0900	—	1000	1100
Lundin Links Hotel	0538	0608	0638	0708	0733	0733	0908	—	1008	1108
Upper Largo Main Street	0541	0611	0641	0711	0736	0736	0911	—	1011	1111
Elie High Street	0551	0621	0651	0721	0746	0746	0921	—	1021	1121
St Monans Elm Grove	0556	0626	0656	0726	0751	0751	0926	—	1026	1126
Pittenweem Tollcross	0601	0631	0701	0731	0756	0756	0931	—	1031	1131
Anstruther Harbour	0606	0636	0706	0736	0801	0801	0936	—	1036	1136
Cellardyke Toll Road	0610	0640	0710	0740	0805	0805	0940	—	1040	1140
Anstruther Co-op	—	0643	0713	0743	0808	0808	0943	—	1043	1143
Dunino Primary School	—	0651	0721	0751	0816	0816	0951	—	1051	1151
Kinaldy	—	—	—	—	—	0821	—	—	—	—
Kilrymont Priestden Place	—	—	—	—	—	0830	—	—	—	—
Madras College South Street	—	▼	▼	▼	▼	0837	▼	▼	▼	▼
St Andrews Lamond Dr	—	0657	0727	0757	0822	0845	0957	—	1057	1157
St Andrews bus station	—	0702	0732	0802	0832	0850	1002	—	1102	1202