**Maths Level – GREEN** Higher (Functional Skills Level 1/2)

**Topic: Time/Date**

**Aim: To correctly solve problems requiring calculations with time**

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| **Session 1** | **Length of session:** 40minutes |
| **Aim of session: To correctly calculate the time word problems** | |
| **Important information:**  When the minute hand moves from one number to the next, it’s been 5 minutes    There are two hands on a clock:  **Minute hand** - long hand goes round quickly and measures minutes. When it goes round the clock once that is one hour  **Hour hand** - short hand goes round slowly and measures hours. When it goes round the clock once, it has been 12 hours | |
| **How to Guide:**  **kaldsadsa**  5 minutes  10 minutes  15 minutes  ***I put the pizza in the oven at 20 minutes***  ***past 5. It takes 15 minutes to cook. What***  ***time do I take it out of the oven?***  I find looking at a clock and adding the time on in five minutes helps me….  **ANSWER: 35 minutes past 5**  **ANSWER: 25 minutes to 6**  **ANSWER: 5:35**  **ANSWER: 17:35**  *All are correct. The answer can be written different*  *but are all the same time* | |
| **Starter :**   1. **Sam went for a 15-minute run around the park. She stopped running at 25 minutes past 3. What time did she start running?** 2. **The doctor saw a patient at 25 minutes past 2. She spent 25 minutes with them. What time was the appointment over?** 3. **Jim woke up at 5 minutes past 5. He was awake for 15 minutes. At what time did Jim fall back to sleep?** 4. **Peter practised playing the piano for three quarters of an hour. He started practising at 5 to 7. What time did he finish?**   **Activity :**   1. **Your neighbour began her run at 8:00am. She ran for 45 minutes. She walked for a further 20 minutes. At what time did she finish her exercise?** 2. **Alex painted from 9:40am until 10:20pm. How long did she spend painting?** 3. **Your brother practised karate for 2 hours and 15 minutes. He finished practising at 6:05pm. What time did he begin?**      1. **Sasha watched a film that lasted for an hour and 45 minutes. If the film ended at 2:55pm, when did it start?** 2. **Ryan went to the cinema to watch a film. It started at 3:15pm and ended at 5:25pm. How long was the film?** 3. **Marcus took 2 hours and 46 minutes to finish his chores. If he began at 4:51pm, when did he finish?** 4. **Edward needed 25 minutes to bake some cookies and 50 minutes to bake some brownies. If he began baking at 7:30pm, when would he finish?** 5. **The film Zootroppolis is 108 minutes long.**   **a. How many hours and minutes is that?**  **b. If the film starts at 14:25, when does it finish?**  **Extension:** Now log onto your MyMaths and complete any online homework | |
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| **Session 2** | **Length of session:** 40minutes |
| **Aim of session: To correctly identify the time measurement required to answer varying time questions.** | |
| **Important information:**  **There are 60 minutes in an hour** | |
| **There are 60 seconds in a minute**  **How to Guide:**  **It is important to convert all the time in the questions to the same measurement; seconds, minutes or hours.**  ***It takes me 33 seconds to eat an ice cream but my sister 1 min 5 seconds. How much quicker am I?***  Me : 33 seconds  Sister : 1 min = 60 + 5 seconds = 65 seconds  65 - 33 = 32 seconds  **ANSWER: I am 32 seconds quicker than my sister** | |
| **Starter :**    **Activity :**   1. **What is 513 minutes in hours and minutes?** 2. **How many seconds are there in 4 minutes and 37 seconds?** 3. **Rewrite three hundred and eighty-six minutes in hours and minutes.** 4. **A film starts at 15:25 and lasts 132 minutes. What time will it finish?** 5. **Cassie trains for 2 hours 30 minutes this week for a race. Charlie trained for 185 minutes. How trained for the longest?** 6. **Below is a table with how much time four friends ran for on each of 4 days:**     **Who completed the most training and for how much longer than the other two friends?**   1. **A sleeper train is due to leave at 23:25 and arrive the following day at 07:17. It leaves 12 minutes late but catches up time to arrive 3 minutes early. How long did the train take in hours and minutes?** 2. **A swimmer swims 12 lengths of a swimming pool in 10 minutes and 36 seconds. On average, how long did each length take to swim?** | |
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| **Session 3** | **Length of session:** 40minutes |
| **Aim of session : To correctly identify and manipulate periods of time that are longer than a day** | |
| **Important information:**    **There are 7 days in a week**  **There are 24 hours in a day** | |
| **How to Guide:**  **It is important to convert all the time in the questions to the same measurement; seconds, minutes or hours.**  ***Steve walks 5km every day. How many days will it take him to walk a total of 91km?***  5km = 1 day / 10km = 2 day / 15km = 3 days *(this will take too long, I see the pattern. Every day we add on 5km or x the day number by 5 therefore…)*  91km ÷ 5km = 18.2 days  18 days walking 5 km = 18 x 5 = 90km (not enough km)  19 days walking 5km = 19 x 5 = 95km (more than total but makes Steve hit his target)  **ANSWER: It will take Steve 19 days to reach 91km** | |
| **Starter :***Convert these times into their opposite am or pm*   |  |  | | --- | --- | | **24-Hour Time** | **12-Hour Time** | | 03:15 |  | |  | 4:00pm | |  | 7:30am | | 18:45 |  | | 14:30 |  | |  | 5:30am | |  | 10:45pm | | 17:30 |  | | 09:15 |  | |  | 6:30am | | 22:30 |  |   **Activity :**   1. **An online company promises delivery within 72 hours. How many days is that?** 2. **Medicine needs to be taken once every 6 hours. How many days will 32 tablets last?** 3. **How many days are there in 18 weeks and 5 days?** 4. **A year 12 class has 5 maths lessons during the week. Each lesson lasts 1 hour and 15 minutes. How many hours and minutes will they have maths lessons in a seven week half term?** 5. **On Sunday I spent 114 minutes on my art project, and 45 minutes on my numeracy homework. On Thursday evening spent a total of 86 minutes on my history project and 39 minutes reading.**   **a. What is the difference in minutes between the amount of homework I did on Sunday and Thursday evening?**  **b. On Sunday I started my homework at 10:00am, when did I finish?**  **c. On Thursday I started my homework at 4:00pm, when did I finish?**   1. **Fred set off at 5:55pm. He arrived at his destination at 7:43pm. Dave had estimated that the journey would take him 2 hours and 16 minutes. What is the difference between her estimated and actual travel time?** 2. **How many hours are there in a week?** 3. **Jenny gets the bus at 2:44pm. She arrives at her destination at 5:32pm. How long did the journey take her?**   **Extension:** All the above times are in 12-hour, rewrite them into 24-hour. | |
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| **Session 4** | **Length of session:** 40minutes |
| **Aim of session : To apply your time knowledge to correctly navigate transport timetables** | |
| **Important information:**  When the minute hand moves from one number to the next, it’s been 5 minutes    **There are 7 days in a week**  **There are 24 hours in a day**  **There are 60 minutes in an hour**  **There are 60 seconds in a minute**  There are two hands on a clock:  **Minute hand** - long hand goes round quickly and measures minutes. When it goes round the clock once that is one hour  **Hour hand** - short hand goes round slowly and measures hours. When it goes round the clock once, it has been 12 hours | |
| **Starter :**  **Activity :**         1. **Emmie starts work at 10:00am. She leaves home at 8:30am to catch the tram at Queens Road. The tram is on time. What time does she get to Piccadilly Gardens?** 2. **Emmie says “I should arrive at the shop before 10:00am”**   **Is she correct?** Show me your workings | |
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