

TIME: O'CLOCK

- Pupils should be taught to tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- Pupils use the language of time, including telling the time throughout the day, first using o'clock and then half past.

Year 1

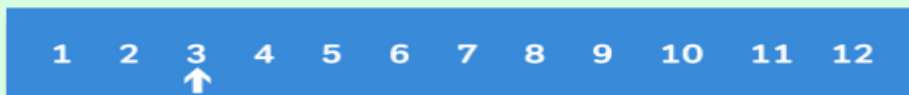
First make sure that children really understand that an analogue clock face is just a special kind of number line.



write the numbers one to twelve on mini post its, then display them horizontally in a line from 1 to 12, equally spaced, with a gap in between each one. Then make an arrow representing the "hand"



Next, explain that when the hand points to a number, this tells us how many hours it is. Make sure you point exactly at the number and not slightly to the left or right of it. Tell the children that instead of saying 'three hours' we say 'three o'clock'.



Once this is secure, model how we can use our number line to find out what time it will be one hour later. Model moving the arrow from three to four to move one hour. Then extend to two hours later and so on.



When you get to 12 and ask what time it is one hour later, explain that instead of going up to 13, we put the numbers in a circle and start back at 1.

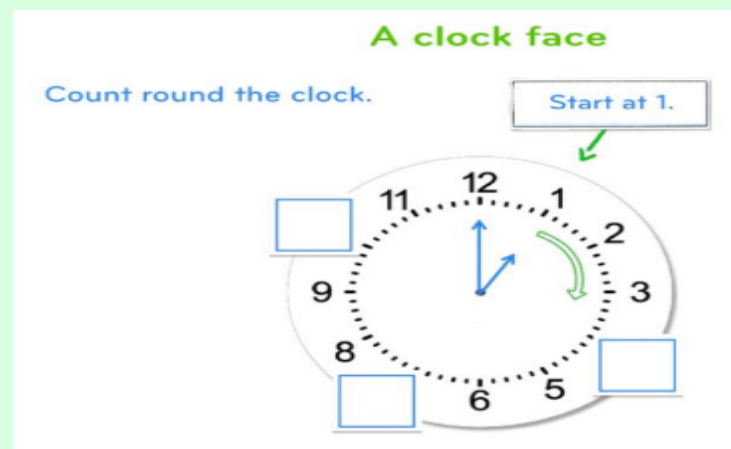


Then move your post its into a circle, in familiar clock face style with the arrow in the middle

Again ask what is one hour later for various times, culminating in asking what is one hour later for 12 o'clock. Now pupils can see that it must be 1 o'clock

QUESTIONS TO ASK: Don't move on to half past until they have grasped this concept.

'if it is 4 o'clock now, what time was it 2 hours earlier? And 'I left home at 10 o'clock and got to the shops at 12 o'clock, how long did it take me?'



TELLING THE TIME: HALF PAST

Going back to my horizontal number line, I will position the hand half way "past" the 2 and 3, as below. Focus only on the hour hand at first.

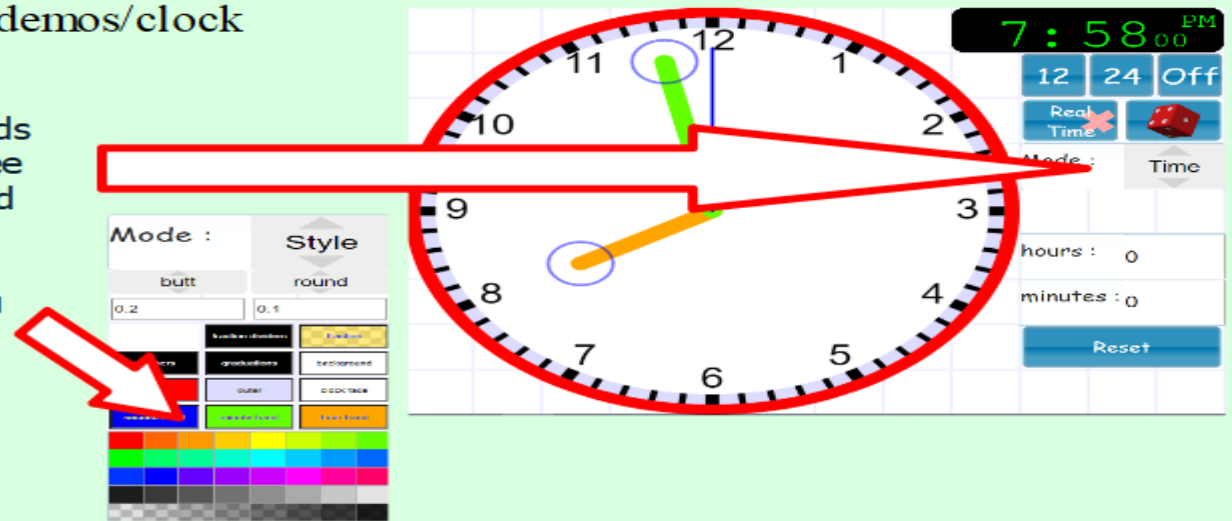


Explain that because the hand is half way between the two and three, we say half past two. Then once again, make your post its into a normal clock face and get children to show various times using their hour hand only clocks. Ask what time will be half an hour later. Show how it will be 3 o'clock.

1. Half an hour later
2. Half an hour earlier
3. An hour and a half earlier
4. An hour and a half later

Once this is secure, these are some of the Maths activities you can do using your circular number line.
<https://www.visnos.com/demos/clock>

You can turn different hands "white" so you can only see the hour, minute or second hand. Press the button shown and go down to 'style'. Click the hand you want to change colour.



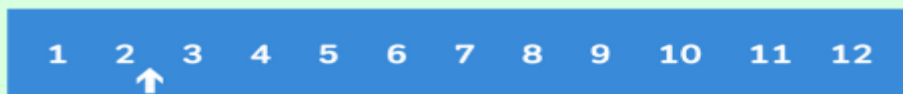
At this point, tell your children that when they see clocks with two hands to ignore the 'big hand' as they can still tell if it is o'clock or half past by looking at the little hand and where it is on our 'number line'

- Pupils should be taught to
 - tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
 - know the number of minutes in an hour and the number of hours in a day.
- Pupils should become fluent in telling the time on analogue clocks and recording it.

TIME: QUARTER TO, QUARTER PAST

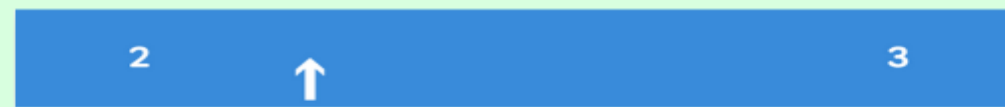
Year 2

Ask children what time this would be?



Point out that it is not half way past yet so it can't be half past, but it is past the two, so it can't be two o'clock

Move your 2 and 3 post its really far apart (away from the rest of the rest of the number line) and place the hand at half past. Then add another identical hand half way between 2 and the half past hand. Take the half way hand away and explain that quarter past is half way between o'clock and half past. Repeat for quarter to.

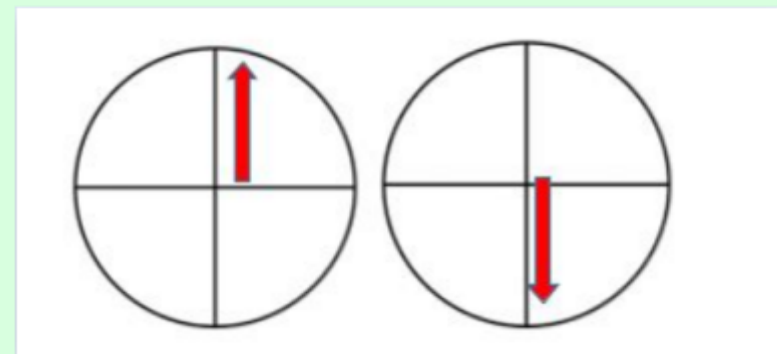


At this stage it's worth pointing out to children that it can be difficult to know exactly where to put our hour hand for quarter past and quarter to, because the hour numbers are quite close together. This will pave the way for introducing the minute hand

TEACHING THE MINUTE HAND

Initially, introduce the minute hand by emphasising the position (rather than the number) to which they are pointing. Introduce the minute hand as a tool to help us check that we have read the hour hand correctly using a clock face, without numbers divided into quarters.

Explain that when the minute hand points straight up, that means it's o'clock. Turn the hand to show half a turn, so the hand is straight down. Its turned half way around so this shows it is half past. Leave quarters for a while, until these first two are secure. Put the post its on the floor and do it practically doing half turns.



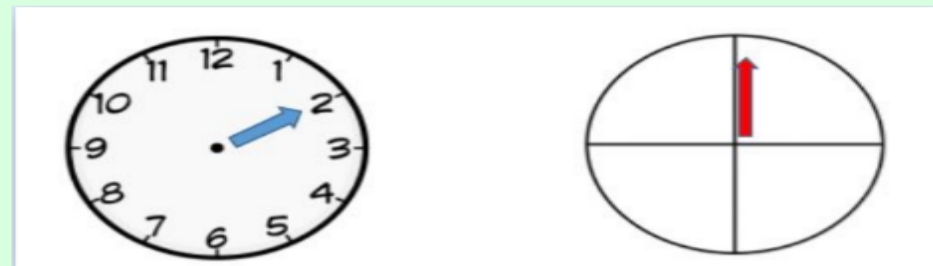
Make a minute hand that is bigger than their hour hand. On their mini clocks, get children to show half past and o'clock using their minute hand.



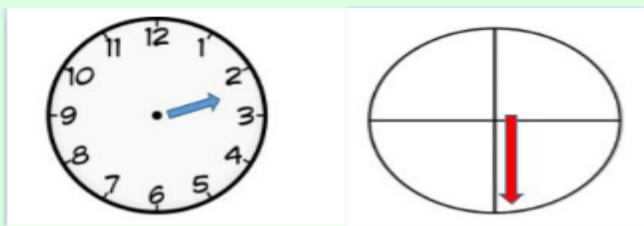
At this point you will need two clock faces. One is going to show the hours and the other will show just the minutes.

Now, using both clocks side by side, show how the minute hand is there to help us check we have read the hour hand correctly.

Demonstrate this on your two post it clocks like this:



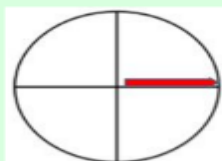
Explain that we look at our hour clock first. It looks like it's 2 o'clock. But now we check by looking at our minute clock. Is the minute hand pointing straight up? If yes, then we've checked its 2 o'clock.



Do the same for half past. Again check hour hand first.

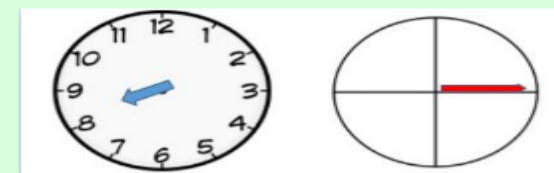


Now show this clock. Reflect on how, in this instance, it is hard to tell exactly where the hour hand is pointing. Draw a line onwards from the arrow tip. This will show that it is slightly past the 2, so must be later than 2 o'clock, but not quite half way between the 2 and the 3, so it is probably not half past either. Maybe it is quarter past. At this point, ask: has our minute hand gone a quarter of the way around its clock? If so, we will know it is quarter past. Now you're ready to introduce the quarter turn and the idea of quarter past.



Children will need lots of practice reading examples like these, but once they have got it, you can make the point that in real life, people don't wear two watches.

In real life, both hands are on the same watch. To read a real clock or watch, make sure you read the hour hand first and then use the the minute hand to check you were right. At this point, you can finally introduce regular clocks and do lots of practice reading o'clock, half past, quarter past and quarter to.

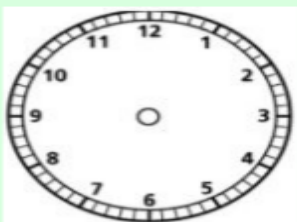


TEACHING THE MINUTE HAND

Revert back to two clocks for this.

Spend a while helping children understand how long a minute is. To do this, see how many paper clips children can pick up one at a time in just one minute, or how many jumps, or what it feels like to be completely still and silent for one minute.

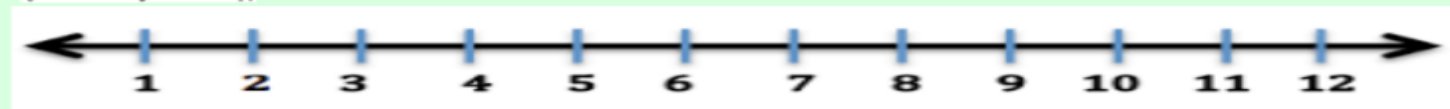
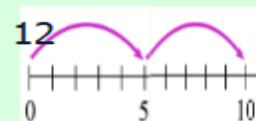
Explain there are 60 minutes in one hour, showing the sort of clock shown below, where every minute is marked. Children could try counting too, in order to check that there really are 60 spaces!



Year 3

- Pupils should be taught to:
 - tell and write the time from an analogue clock, including using Roman numerals from I to XII, and [12-hour and 24-hour clocks](#)
 - estimate and read time with increasing accuracy to the nearest minute; record and
 - compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
- Pupils use both analogue and digital 12-hour clocks and record their times. In this way they become fluent in and prepared for using digital 24-hour clocks in year 4

Then ask the children to make a 1 to 12 number line using 1p coins or anything you have grouped in 5s. Explain that we are doing it on a number line first to make it easier and that each cube represents one minute. Also explain that rather than having to count the minutes in ones they are grouped in fives, to make it easier.



Model counting along the clock, while counting the groups of 5 cubes. Add a second row of post-its above the first, with these multiples of 5 on them, but the last one put a 0 as well as a 60.

Initially express all times in terms of minutes past the hour, and come back later to learning how to express time in terms of minutes to the next hour.



5	10	15	20	25	30	35	40	45	50	55	60/0
1	2	3	4	5	6	7	8	9	10	11	12



So, now place your minute hand on the number line at various points. Explain that when the minute hand points to 4, that means it is 20 minutes past whatever number the hour hand is showing. And so on for all the numbers from 1 to 11. Then explain that if it points to 12 that's a whole hour. We don't say 3:60, we say 4 o'clock.



The minute clock needs to have groups of 5 cubes separating each numeral, and a second circle of digits with the multiples of 5 forming a second outer ring. Go through a series of examples where children have to read the hour clock first, and then the minute clock.

Do make sure you try and get the hour hand to be in the right place for the minutes!

At this point the children are probably ready to read both hands on the same clock at the same time.



MINUTES TO THE HOUR

In order to begin teaching children minutes to the hour, make the link between quarter past, half past and the :15 and :30 versions. Then use :45 to point out the discrepancy.

We say 45 minutes past 9 but a quarter to 10. On the cube clock, count in 5s anti clockwise from 12 back to 7, writing these numbers to form a third ring.

Then, point to number 11. Say 'When the minute hand points to 11, this shows it is 55 minutes past the hour but 5 minutes to the next hour.'

Next point to 10. Say, 'when the minute hand points to 10, this shows it is 50 minutes past the hour but 10 minutes to the next hour', and so on up to 25.

As previously, do this on two clocks. Read the hour first, then give the time in minutes past, then finally in minutes to, reminding students that as it is 'to' the next hour. Again, allow plenty of practice before swapping to both hands on the same clock (and then lots more practice!)

