Year 2

Remote Learning

Maths Week 13 (w.c. 15.6.20)

Message

Hello Year 2,

We hope you had lots of fun learning about giving and following **directions** last week! Did you get dizzy doing lots of **turns**?

This week, we are learning about **Time**. Lots of the learning you did last week, and some of the words you used, will be really useful this week.

By the end of the week you will be able to tell and write the time in steps of **five minutes**, including **half** or **quarter past/to** the **hour**. You will also be able to draw the **hands** on a **clock face** to show these times.

Remember, you can send any of your learning to: year2@coleridgeprimary.net. We really love seeing what you have been up to.

Take care,
Ms Creamer, Mr Heidensohn, Miss Ibbotson and Mr Ibbotson

Parent Message

Dear Parent,

This week's maths is the first of two weeks all about **Time**. It covers new learning for the children, building on what they learned in Year 1.

This is another practical unit; if we were at school, we would use lots of analogue clocks to tell and set times with. The children make paper clocks this week, but if you have access to an analogue clock that your child can move the hands on, it could help their learning.

Everyone's family situation and time available for home learning is different, so please feel free to tailor these lessons to suit your family, picking whatever works best for you!

Best wishes,
The Year 2 Team

Website Links

BBC revision of o'clock, half past, minutes per hour:
https://www.bbc.co.uk/bitesize/topics/zhk82hv/articles/zcmdwxs

Stop the Clock
A strategy game for two players, or against the computer:
https://nrich.maths.org/6071

Matching Time
A matching pairs game:
https://nrich.maths.org/10332

Interactive teaching clocks that you can set or use with live time:
https://www.topmarks.co.uk/time/teaching-clock

https://www.visnos.com/demos/clock

Lesson 1 – O'clock and half past

You will need: paper and/or card, pencils or pens, a round template (e.g. a plate), scissors, a ruler or other straight edge

Key words: clock face, hour hand, minute hand, o'clock, past, to, hour, half, half an hour, clockwise

Introduction Activity (practical):

A - What do you remember? Get a pencil and a piece of paper and sit where you **can't** see a clock (you may have to turn away, or hide the clocks in your home!). Now draw what you think a clock looks like. What shape is it? What numbers does it include? What other features does it have? Can you describe them and what they do?

B – Check and learn. Compare your picture to a real clock in your home, this interactive clock: https://www.topmarks.co.uk/time/teaching-clock or to the picture of an **'Example Clock'** clock we have provided on the document **'Make a clock'**. Using these correct words, can you find the **clock face**, the **hour hand** and the **minute hand** on both clocks? Can you describe any differences between the two hands?
Did you know that the hour hand is moving along with the minute hand, only much more slowly?

Teaching video (3 minutes) (by Twinkl): https://www.youtube.com/watch?v=3Posbu-VKxU&feature=youtu.be
How did you get on with telling the times in the video? Can you describe where the hour hand will be if the time is half past six?

Activity 1 (written sheet) – complete the sheet '**Lesson 1 Activity 1 draw and write times**'

Activity 2 (practical) – Make your own clock (Part 1)
This week you are going to do a little bit each day to make your own clock. For each day, there are photos of the clock Mr Heidensohn made at home (look at the picture 'Make a clock - Day 1 - Halves' in the document '**Make a clock**' for an example of what you need to do today) to help you with how to do yours. To start off with today, we are going to draw the clock face, and split it into two half hours. Follow the instructions below.

1. Get a big piece of paper or card (ideally A3 size or similar, but A4 will do), a pencil and a round template such as a plastic or paper plate.
2. Put the template on the piece of paper and draw around it to make a circle on your piece of paper. This is your clock face.
3. Split your clock face into two equal half hours. You could fold it gently, or use a ruler to draw a line down the middle.
4. Shade one half very lightly with a pencil. Don't colour it in fully, because you are going to do more colouring tomorrow when you split it into quarter hours. Label each side 'half an hour'. Label one of these half hours '**past**' and one '**to**'.
5. Draw, cut out and colour in a minute hand – if you have some card it would be good to use for this, but paper is fine. Use a ruler or the edge of something straight to draw straight lines. To make the hand the correct size, it should begin in the middle of the clock face, with its pointed end reaching nearly to the edge of the clock face. You could try using your measuring knowledge skills to make sure it's the right size.

Starting with it pointing straight up, where 12 would be, move your minute hand around the clock face half an hour at a time. What can you describe about what is happening? Is it pointing to o'clock or half past? Is it in the 'past' half or the 'to' half of the clock face? How many minutes pass each time it moves half an hour? What would happen to the hour hand each time the minute hand moves round half an hour?

Lesson 2 – Quarter past and quarter to

You will need: the paper clock you began yesterday, colouring pens/pencils

New key words: quarter turn, quarter past, quarter to, clockwise

Introduction Video (physical activity):
Watch Mr Heidensohn teach this here: https://www.youtube.com/watch?v=ya-LSLumWQI&feature=youtu.be
Let's use some of our position and direction learning to help us learn about time.

1. Decide on one direction to face to begin with – this is **o'clock**. Stand up and face in this direction.
2. Stretch one of your arms straight in front of you (like you are pointing at someone) to point in this 'o'clock' direction – this is your **minute hand**.
3. Now make a half turn so that you are pointing to **half past**. How many minutes is that?
4. Now make another half turn. You should be pointing to o'clock again.

5. Now you are going to make a quarter turn clockwise.
6. Then make another quarter turn clockwise.
7. After that do another one
8. And finally make a last clockwise quarter turn. Are you pointing to o'clock again? You should be!

Activity 1 – Make your own clock (Part 2)
Get the paper clock that you made yesterday. Set the minute hand to 12 to begin. Can you get the minute hand to do the same turns that you just did? First do the two half-hour clockwise turns, then do each of the four quarter turns clockwise. Each of these is worth a quarter of an hour. How many minutes are in each quarter of an hour? Now let's add these quarters to our clocks. You can look at the picture 'Make a clock - Day 2 - Quarters' in the '**Make a clock**' document to see Mr Heidensohn's example.

1. Split your clock in half again so that there are four equal quarters. You might fold it gently again, or use a ruler. It should look like a pizza that is shared equally between four people.
2. Colour each quarter in a different colour. Make sure not to use really dark colours, so that you will still be able to see numbers when you write them in.

Starting at **o'clock**, move your minute hand clockwise one quarter turn – this position is **quarter past**. Move it another quarter turn in the same direction. What time is your minute hand at now? It should be **half past**. Continue clockwise another quarter turn. Do you know what time this position means? It is **quarter to**. One more clockwise quarter turn takes you back to what? Yes, **o'clock**. You could look at this document **'Lesson 2 Minute hand positions'** to check whether your minute hand is in the right position for each time.

You could play with your clock like this, describing the time the minute hand is pointing to, how many minutes pass when you move a quarter or a half hour. How many quarters are in half an hour? What would happen to an hour hand each time you make a quarter turn? Can you stand up and make your arm be a human minute hand again and move it to match where your paper clock is?

Activity 2 (written sheet): 'Lesson 2 Activity 2 quarter past and to'
Page 1: write the time in words and numbers underneath each clock. For example, 4 o'clock, half past 6, quarter past 3.
Notice where the hour hand is for quarter past, half past and quarter to times.

Page 2: draw the time on each clock to match the time written in words underneath.
Think carefully about where the hour hand should go!
Page 3 and 4 have the answers on, so use these to check your work once you have done it.

Lesson 3 – Quarter past and quarter to

You will need: Your paper clock, more paper or card, pens/pencils, scissors, a split pin (optional)

Introduction (written sheet): Refresh your memory from yesterday's lesson on quarter past and quarter to times. Fill in the correct times in words or on the clocks on the sheet '**Lesson 3 Introduction Activity**'.
If you are finding quarter past and quarter to times tricky, watch the first minute or so of this video, looking carefully at where the minute and hour hands are for each time: https://www.youtube.com/watch?v=Pht7dTlM0VA.

Activity 1 - Make your own clock (Part 3)

1. Write the correct numbers on your clock. To make sure they are in the right places, it helps to write the 12, 3, 6 and 9 in first, then put the other numbers in the right places in between them. Try to use what you've already learned, but if you're not sure, look at a real clock, or at our photo 'Make a clock - Day 3 - Numbers added' in the '**Make a clock**' document.
2. Draw, colour in, and cut out an **hour hand** for your clock. Again, it is easier to use card if you have some, but paper will do. Make sure it is the right size - it must be **shorter** than the **minute hand**.
3. If you have a split pin for your clock, you can now attach both the minute and hour hands to the middle of the clock and spin them around the clock face to tell different times. If you don't have a split pin, it doesn't matter, you can still place the minute and hour hands in the right positions to tell different times.

Activity 2 – reading, setting and describing times on a clock
Set your clock to lots of different times. Can you prove how well you understand clock times by using these stem sentences to describe how you know what time your clock says?

"The minute hand is pointing to the ____.
The hour hand is pointing to / just after/ in between / just before the ___.
The time is _____."

Send your teacher some photos of your clock telling different times!

Activity 3 - problem solving – fill in all the possible times on the sheet '**Lesson 3 Activity 3 problem solving**'.

Lesson 4 – Telling the time past the hour to five minutes

You will need: Your clock

Introduction (counting in 5s): Practise counting in 5s. How far can you go? Try to do it from memory if you can. If you need some help, you could use this online 100 square and splat all the numbers ending in 5 or 0:
https://www.primarygames.co.uk/pg2/splat/splatsq100.html
Once you are confident, practise counting in 5s up to 60 and then back down again to 0.

Activity 1 – counting in 5s with a clock
Now count in fives using the numbers on your clock. This may seem a little confusing at first – each time you move round to the next number, you count up another five. So, going clockwise from 12, you'll count 5 when you point to the 1, 10 when you point to the 2, and so on. Do it by pointing, then try moving your minute hand round the clock face, counting up in 5s as you go.

Activity 2 – making times past the hour to five minutes

Counting up in 5s, use your clock to make 15 minutes past 12. What do you notice? Now make 30 minutes past 12. You have probably spotted that 15 minutes past is the same as quarter past, and 30 minutes past is the same as half past. Can you use your fractions knowledge to explain why this is?

Look at the photo 'Make a clock - Day 4 - What time is it?' in the '**Make a clock**' document. Can you explain what the time is by describing where the minute and hour hands are?

Use your clock to make the times on this sheet: '**Lesson 4 Activity 2 past the hour to 5 mins**'.

Lesson 5 – Telling the time to five minutes to the hour

You will need: Your clock

Introduction: Once the minute hand moves past the 'half past' we start talking about minutes 'to the hour'. So we don't usually say '35 past 2', or '50 past 4', we say '25 to 3' and '10 to 5' instead. Try this to see how it works:

1. Set your minute hand to the o'clock position (pointing to 12).
2. Move it anti clockwise as far as half past, counting in 5s as you pass each number. These are the positions for times 'to the hour'.
3. Start at 12 again. Let's move your minute hand anti clockwise by one number to set it to a '5 to' position. What number is it pointing at?
4. Now continue to the next number to set it to a '10 to' position. What number is it pointing at?
5. Try setting your minute hand to '15 (quarter) to', '20 to' and '25 to' positions. What can you describe about what is happening?
6. Now use your hour hand as well. Set some different times on your clock.

Activity 1 – use your clock to set the times on the sheet '**Lesson 5 Activity 1 times to the hour to 5 mins**'

Activity 2 - a day in my life on my clock

Set your clock to the times that you do each important thing in your day. What time do you get up? When do you have breakfast? What time do you start remote learning? How long do you spend on your first lesson, so what time do you finish it? As you set each time, for an extra challenge, can you work out how long it is since the time you set on your clock just before it?