



Willow Dene School Scheme of Work

MATHS: Time

About this Scheme of Work: This unit explores Time. Children will be working on the concepts of time, starting with a basic understanding of start and stop, fast and slow, and moving on to more complex concepts such as now and next, before and after, and sequencing before working on more formal aspects of time, such as telling the time with a clock, learning the days of the week, etc. The concept of Time needs to be addressed throughout the school day, in real life contexts as well as in Mathematics lessons. It needs to be covered continuously during the school year as well as in a more focused way in this Scheme of Work.

Please note that there is a large amount of vocabulary associated with this unit, particularly related to time. Please ensure that the teaching activities you provide ensure coverage of relevant vocabulary.

VOCABULARY:

- Words related to lengths of time, such as: year, month, week, fortnight, day, hour, minute, second, o'clock, half past, quarter to, quarter past, five to, five past, etc.
- Words related to days of the week, such as: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday
- Words related to months of the year, such as: January, February, March, April, May, June, July, August, September, October, November, December
- Words related to the season, such as: spring, summer, autumn, winter
- Words related to times of the day, such as: morning, afternoon, evening, night, midnight, bedtime, dinnertime, playtime
- Words related to comparing the passing of time, such as; yesterday, today, tomorrow, before, after, next, now, last, soon, later, early, late, old / new, older / newer, oldest / newest, birthday, holiday, weekend
- Words related to the speed of time, such as: quick / slow, quicker / slower, quickest / slowest, quickly / slowly, fast, faster, fastest
- Words related to the equipment of measuring time, such as: clock, watch, hands, digital, analogue, calendar, date, am, pm
- Words related to frequency, such as: always, never, sometimes, often, usually, frequently, once, twice, how often...?, how long...?

RESOURCES:

- Toy cars, motion bugs
- Tockers, alarm clocks
- Kitchen timer
- Musical instruments
- Sand timers / rocking timers
- Photographs / pictures / symbols for sequencing
- Timetables, timetable symbols, work schedules, etc.
- Date charts, calendars, diaries etc.
- Collections of analogue and digital clocks and watches

LEARNING OBJECTIVES	POSSIBLE TEACHING ACTIVITIES
<ul style="list-style-type: none"> • Show an awareness or interest in the sequence of familiar and routine events • Learn the symbols / signs / words for next • Sequence two familiar events in response to first / then or next or now / later and recognise the symbols for this vocabulary • Sequence two then three or more familiar events in response to the vocabulary before / after (such as before dinner / after dinner) and recognise the symbols for this vocabulary 	<ul style="list-style-type: none"> • Use a combination of sensory cues for days of the week such as AUDITORY music (e.g. Mozart-M, S Club-T, Pan Pipes-W, etc.) / SMELL essential oils (e.g. lavender-M, lemon-T, patchouli-W etc.) / TOUCH tactile (scourer-M, sheepskin-T, silk-W etc.) / TASTE (e.g. crisps-M, orange-T, chocolate-W etc.) • Anticipate cause and effect, for example, with computer software – touch the screen: music and lights occur • Predict what comes next in games such as Peek-a-boo / 1, 2, 3, Go! / 3, 2, 1, Blast Off • Who can build a tower with three bricks / get changed for PE / drink their juice first? • Follow and comprehend a first...then... schedule • Predict what comes next / recall what they did before • Give out drinks / equipment / sweets in order, going around a circle or along a line, indicating (through sign / symbol / speech) who is next • Recall recent events of significance (through sign / symbol / speech) • Sing songs or play instruments fast(er) and slow(er) • Look at a calendar / doing the date chart, saying what day it is today, tomorrow, yesterday • Draw circles / lines / dots fast or slowly • Explore how quickly water pours through tubing and finding ways of making it go faster / more slowly • Use bikes / running / jumping / spinning fast and slowly • Associate events with each other and sequence them, such as assembly & going home / dinner & pudding / play & drinks / wet pants and toilet • Associate familiar activities such as school / sleep with day / night. Children could stick these on a chart to show when they occur • Associate familiar activities such as maths / assembly with morning / afternoon. Children could stick these on a chart to show when they occur

<ul style="list-style-type: none"> • Distinguish between and respond to fast / quick / slow • Show awareness of time through some familiarity of the signs / symbols / words for days of the week and significant times in their day such as meal times and bed time • Use vocabulary in relation to days of the week / significant times in their day, including day / night and morning / afternoon 	<ul style="list-style-type: none"> • Sequence photos of themselves as a baby / when they started school / now • Sequence familiar stories – what happens first / next / last? • Compare sand / rocking timers • Carry out an action for a specified length of time, such as standing on one foot / jumping / singing for the duration of a sand timer (10 second / 30 second / 1 minute) • Explore clocks: moving the hands, looking at different types of clocks / watches (analogue / digital / old / new) • Role play with diaries, calendars, etc. • Use before / after sequencing cards. Introduce vocabulary such as first / next or before / after. Ask students to match the pairs of cards to symbol supported text (first / next or before / after) • Use photo sequencing cards. Ask students to sequence cards and describe what happened first / next / last. How do you know? Ask students to match cards to numbers 1,2,3,4 to show the order they happened in (remove one or two cards to simplify the activity) • Use the extended ring timer. Time different periods during the day – such “If I set the time to ring in 5 minutes, will it ring before or after maths is finished?”. Set challenges, such as how many times can you write your name / run to the gate and back before the bell rings? Or can you stay silent until the timer rings? Ask what you might use the timer for in the kitchen or elsewhere in the house • Use the tocker timers. Which timer will stop rocking first? Which tocker goes fastest? Which is slowest? Can you count up to five at the same speed as the tocker? (try counting 1 and 2 and 3..). • Use the metronome. Can you clap along with the metronome when it is moving slowly? What about when it moves fast? • Copy times modelled on clocks by matching hands to numerals • Use the days of the week and months of the year puzzles and talk about what happens on each day / during each month • Match symbols of significant things that happen each day of the week at school, e.g. Monday – bikes, Tuesday – swimming, Wednesday – ball pool, Thursday – art, Friday – assembly • Make a birthday chart and discuss which birthdays fall in each month. Ask questions like Who has their birthday in March? How many people have a birthday in November? Etc. • Make a clock with a face (use photos of children or drawings) and put “hands” on to it. How many hands do we need? If appropriate, add numbers • Make a rocking timer with a coffee (or other plastic) lid. Draw a face and stick it to the outside surface of the lid. Add a cardboard (laminated) hat that extends vertically from the face. Put a lump of plasticine inside the lid in line with the bottom of the face. Pull the hat down to make the time rock. Compare two or more timers to see whose rocks for longest, whose stops first, etc. Experiment with changing the
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amount of plasticine to see what effect it has. Children could also see what they can do before the timer stops, such as how many beads can they thread or how high a tower can they build with Duplo.

- Make a day time and night time collage – cut pictures from magazines depicting day and night time scenes. Talk to the children about why they have put it into a particular set, such as “because it is dark”; “because the lights are on”; “because I can see the sun”. They could add some symbol supported words to their collages, such as: sun, moon, dark, light, sleep, awake, etc.
- Make a sand or water timer. Look at commercial examples. Ask children to make their own timer using two plastic drinks bottles< Cut holes through each of the lids, then tape the bottles together, lid to lid. Vary the size of the hole. Compare different timers to see whose timer finishes more quickly, whose timer lasts the longest, etc.
- Use wind up toys to compare lengths of time. Ask two children to each wind up a toy and put it in a tray of water or on the table to see which one stops first. Children could repeat this several times and keep a simple tally of which toy finishes first each time
- Which takes longer? Have a range of symbol supported “task cards” such as: put on a coat; build a tower of five cubes; put all the pieces in an inset puzzle; pour a cup full of water; put on a hat and scarf; walk to the door and back; cut a piece of paper in half; write their name. Ask a pair of children to pick a card each and compare which task takes longer. The task card could be stuck onto a chart to with the headings “It takes longer to...” and “It takes less time to...”. Use comparative and time related vocabulary to discuss.
- Watch a video at normal speed, in slow motion and being fast forwarded. Can children identify whether the speed is “right”, “fast” or “slow”. They could have symbols to help them indicate this
- Hoop race. Split the class into two groups. Assign each team a colour and give each team a corresponding hoop, and equal distance away from a third, central hoop. Place a number of Unifix cubes of each teams colour in the central hoop. Challenge each team to relay to collect one cube of the correct colour from the central hoop and bring it to their team base. Which team can collect all of their cubes quickest?
- Noisy hands – use a large (geared) demonstration clock. Ask the children to shout when the “big hand” (this could be marked with a big red hand) gets to number 12. Vary the target number and repeat with the “little hand”. The children could attempt to copy position of the hands on their own clock.
- Which empties faster? Have two identical plastic tubs. Cut a large hole in the bottom of one and a small hole in the bottom of the other. Cover the holes with blu tac or tape and fill the pots with coloured water. Remove the stopper and see which one empties fastest
- Sequence a school day. Give children timetable symbols relating to activities during the day e.g. English, Play, drinks, maths, lunch, art, assembly. Vary the number of symbols according to the child

	<ul style="list-style-type: none">• Read stories and rhymes related to time, such as: Solomon Grundy; Monday's child...; The Very Hungry Caterpillar; The Bad-Tempered Ladybird; The Very Busy Spider; On Friday Something Happened; etc. Retell stories or make charts, for example showing which day each child was born on• Learn <u>Time Songs</u> about clocks, days of the week, months of the year and the seasons. Make pictures or displays to accompany them
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