

# It's time to learn

## Counting, partitioning and calculating

- **Block A Unit 1:** Count reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; estimate a number of objects that can be checked by counting.
- **Block A Unit 1:** Relate addition to counting on; recognise that addition can be done in any order; use practical and informal written methods to support the addition of a one-digit number or a multiple of 10 to a one-digit or two-digit number.



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This is the third article in a series about measurement and the theme of this one is time.

The purpose of the series is to stress the importance of children being given the opportunity to learn how to carry out tasks practically and successfully before they are required to work with calculations or solve problems involving measures.

## Differentiation

This article can be adjusted to meet aims for year 2 and fits into the aim: use units of time (seconds, minutes, hours and days) and know the relationship between them; read the time to a quarter of an hour; identify time intervals including those that cross the hour.

## Day 1

### Talking time

- As an introduction, help children to understand that time is a 'different' form of measurement. It cannot be seen or touched but the effect of it passing as afternoon follows morning, night follows day and summer follows spring is constantly around us.
- Focus on the meaning and use of vital 'time' vocabulary. Start with before, after, during, between, now, first, last, soon and later. Expand to today, yesterday and tomorrow and include next week, at the weekend, next month, next year.
- Help children differentiate between a moment or instant like half past four and a duration, the amount of time

something takes like half an hour, a day, a week.

## Hands on

- Provide plenty of activities in which children have to use their sequencing skills. Make sets of sequencing cards to put into order.
- Talk through the time-scale of basic processes like cleaning teeth and making a cup of tea. Investigate the daily routine-a context in which we are all, to some extent, controlled by time. Time to get up, time to go to school, time to have lunch, time to go home etc.
- Then ask children to talk about events that happen on a slightly longer time-frame for example, PE lessons on set days, swimming club on an evening once a week, playing matches every Saturday or Sunday.
- Set up situations that illustrate the importance of order, sequence and time in other curriculum areas.
- The necessity of progressive stages in a science experiment, the order of steps and movement in a dance or gymnastics routine, the arrangement of events on an historical timeline.
- Exact detail may not be needed at this stage but make children aware that at any fixed moment, time will vary in different parts of the world.

## Day 2

### Talking time

- Provide as many digital clocks as possible for children to look at and work with. A digital display should be easier for them to interpret since it shows both hours and minutes together. Digit cards are a useful way of setting up and displaying digital times.
- Make it clear that hours are shown on the left-hand side and minutes on the right. It may help if children have a visual aid on a number strip of the

minutes showing 01, 02, 03 .... 58, 59, 00.

- Halve the strip to show that 30 is half way. Fifteen comes at the end of a quarter of the strip and 45 at the end of three-quarters.

## Hands on

- Cut out four square windows in a large piece of card and, using strips of numbers pushed down behind it, make a digital clock face. Use this model to show answers to a range of questions and statements. 'Show me four o'clock.' 'Show me half-past nine.' 'Show me half an hour later than two o'clock.'
- Set up pairs of digital times that are an hour or half an hour apart.
- Demonstrate how a relationship arrow can link pairs of times e.g. 2:00 is one hour after 1:00. Or draw in the arrow to show whether the first time is earlier or later than the second, for example, 6:00 is later than 4:00 and 2:00 is earlier than 7:00.
- Play 'complete the sentences' activities based on a digital time. For example, show 4:30. The time is ? It will be ? in 1 hours time. Half an hour ago it was ? Or write in missing digital times in sequences. For example, 3:00, 4:00. 5:00 ? ? or 2:30, 4:00. 5:30 ? ?

## Day 3

### Talking time

- Make a display of analogue clocks in the classroom so children can experience as many different versions as possible.
- Try to include examples where numbers have been omitted so children fill in the blank spaces themselves. Some may become interested in Roman numerals and will easily pick up the Roman symbols for the numbers 1-12.
- Demonstrate that an analogue clock or watch has time displayed on a continuous scale that is usually circular.

The scale shows twelve hours and sixty minutes in groups of five.

- Emphasise the shorter hand-indicating hours-travels around the scale twice each day. The longer hand-showing minutes-completes a full rotation every hour. Ensure children realise that the hour hand moves and can be used to tell an approximate time on its own.

### Hands on

- Children should make their own analogue clock faces from circles of card using paper fasteners to control large movable hands.
- Provide them with plenty of opportunities to arrange hands on clock faces saying out loud the time shown, for example, 'It is ten thirty.' Show them how to record certain key points in the day. For example, 'It is twelve noon. I am going to have lunch.'
- Play games, like a version of snap, in which children have to match up stated times with the correct position of the hands on the clock face.
- Play the game called 'Triangle times'. An analogue clock face shows a certain time in the middle.
- Children have to place around it three strips giving the same time in different ways. For example, if the time shown by the hands is 10-30, the strips would show 10:30 (digital equivalent), thirty minutes past 10 and half past 10.

### Day 4

#### Talking time

- Talk to children about their favourite television programmes. What time do they start? What time do they finish? How long do they last? Can they tell what will be showing at a certain time by working out the duration of programmes?
- Show examples and discuss other types of timetables. Stress how important they are in the way things are organised.
- Brainstorm to find as varied a list as possible including daily school routines, bus, rail and air flight timetables, shop opening times, postal collections, library book returns, lighting up times, film showings at cinemas, and so on.

### Hands on

- Ask children to compare the time taken to complete similar tasks. They start the tasks simultaneously.

- The comparison is a direct one to provoke language such as first, last, slowest and fastest. Activities could include tying shoelaces, fastening a coat or filling up a pegboard.
- Use standard devices to time a range of activities-watches, clocks, timers, tockers etc. How long does it take, for example, to run across the playground or write a name and address? Can children accurately record times for sports events involving walking and running?
- Investigate how long it takes to complete activities in a fixed time. Before the timer stops how many cubes can be built into a tower or beads threaded onto a string?
- Make a simple water timer. Use a tin and the bottom part of a clear plastic bottle. Fasten a strip of card to the side of the bottle and make a hole in the base of the tin.
- When the tin is filled with water, the strip of card can be marked to show the level of water in the bottle at equal time intervals.

### Day 5

#### Talking time

- Focus on the arithmetic of time. Talk about the Base 60 system we use for seconds and minutes and how 24 hours make up a day and night. Look at other measures, seven days in a week, 12 months and 52 weeks in a year, a

period of 365 days and why we have leap years.

- Show children examples of the methods we use to record longer stretches of time. An annual programme of events, for example, a class planner of terms and holidays, calendars, diaries, the four seasons, holiday brochures.

### Hands on

- Keep regular diaries e.g. an hourly diary for one day, a daily diary or a weekly diary. What is the best way of writing up information? What information is it important to include?
- How many ways can children find to show the birthday information of their class?
- Talk about using charts, graphs, tables, pictures and lists. Which display would be best for answering certain questions? For example: How many children were born in August? Who is older than Jane? Which is the most popular birthday month?
- Play sequence games getting the days of the week and the months of the year in the right order. Put the names on cards and arrange them on a 'washing line'.
- Do children know the origins of the names we give to our days and months?
- Choose a month on the calendar. Which are weekdays?
- Which are weekend days?
- What day will it be in three days time? How many Thursdays are there? Which day is eight days after the fifth? **5to7**

## This week's essentials

- Analogue and digital clock faces.
- Stop watches.
- Sand timers
- Tockers.
- Time pingers.
- Digit cards.
- Timetables.
- Radio/television listings.
- Calendars,
- Diaries.
- Event posters and programmes.
- Holiday brochures.

