

Book 3

Key Stage 2 - Ages 7/8

Measurement in Mathematics Series

**Practical measuring activities for the
classroom.**

Written by Robyn Willey. Illustrated by Rod Jefferson.

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Email: info@readyed.com.au Website: www.readyed.net

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Overview

These blackline masters in the measurement stand of mathematics have been devised to:

- ☐ provide teachers with activities to reinforce teaching objectives related to required aspects of curriculum documents;
- ☐ give teachers alternative approaches so students can practice the necessary skills;
- ☐ be time saving (teachers don't have to prepare worksheets);
- ☐ provide enrichment activities;
- ☐ provide starting points for teachers;
- ☐ be easy to use.

As such the book covers concepts directed towards meeting curriculum references for:

- * *Problems involving measures (length; mass; volume; time; capacity; area)*
- * *Shape and space: Properties of 2D shapes; Properties of 3D shapes.*

Each page of activities contains a challenge section to extend the students' learning.

For children to learn effectively they need to be taught using a problem solving approach involving only one new concept being introduced at a time, with plenty of time to practise new skills. Opportunities should be given for children to work together in groups or pairs and to discover why they need to learn mathematics and how it relates to everyday life.

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Materials required to complete the activities in this set.

- | | |
|---|---|
| <input type="checkbox"/> Coloured rods | <input type="checkbox"/> Paper clips |
| <input type="checkbox"/> Drinking straws | <input type="checkbox"/> Deep tray to catch overflowing water |
| <input type="checkbox"/> Ice lolly sticks | <input type="checkbox"/> Measuring tape |
| <input type="checkbox"/> Ruler | <input type="checkbox"/> Metre ruler |
| <input type="checkbox"/> Base ten blocks | <input type="checkbox"/> Large pieces of paper |
| <input type="checkbox"/> Margarine tubs | <input type="checkbox"/> Paints |
| <input type="checkbox"/> Jug | <input type="checkbox"/> Pieces of card, about 10 cm x 5 cm |
| <input type="checkbox"/> Can | <input type="checkbox"/> Calendar |
| <input type="checkbox"/> Saucepan | <input type="checkbox"/> 3 different sized small boxes |
| <input type="checkbox"/> Kettle | <input type="checkbox"/> Sticky tape |
| <input type="checkbox"/> Orange rods | <input type="checkbox"/> Scissors |
| <input type="checkbox"/> Reading book | <input type="checkbox"/> Nuts |
| <input type="checkbox"/> Trundle wheel | <input type="checkbox"/> Measuring cylinder/jug |
| <input type="checkbox"/> 1 minute timer | <input type="checkbox"/> Hoop or a wire coat-hanger |
| <input type="checkbox"/> Skipping rope | |
| <input type="checkbox"/> Tennis ball | |
| <input type="checkbox"/> Stopwatch | |
| <input type="checkbox"/> Counters | |
| <input type="checkbox"/> 10p coins (play money) | |
| <input type="checkbox"/> Pattern blocks | |
| <input type="checkbox"/> 1 cm grid paper | |
| <input type="checkbox"/> Leaves | |
| <input type="checkbox"/> Apple | |
| <input type="checkbox"/> Small stones | |
| <input type="checkbox"/> Balance scales | |
| <input type="checkbox"/> 1 cm cubes | |
| <input type="checkbox"/> 2 cm cubes | |
| <input type="checkbox"/> Marbles | |
| <input type="checkbox"/> Potato | |
| <input type="checkbox"/> Bathroom scales | |
| <input type="checkbox"/> 4 different sized and/or shaped containers | |
| <input type="checkbox"/> Sand | |
| <input type="checkbox"/> Cup | |
| <input type="checkbox"/> Soft drink bottle | |
| <input type="checkbox"/> Juice bottle | |
| <input type="checkbox"/> 1 litre container | |
| <input type="checkbox"/> ½ litre container | |
| <input type="checkbox"/> Funnel | |
| <input type="checkbox"/> Drinking glass | |
| <input type="checkbox"/> 6 similar sized containers (containing stones, sugar, flour, kidney beans, pasta and peas) | |

Name

Measuring My Friend

What you need: measuring tape

My friend's name is

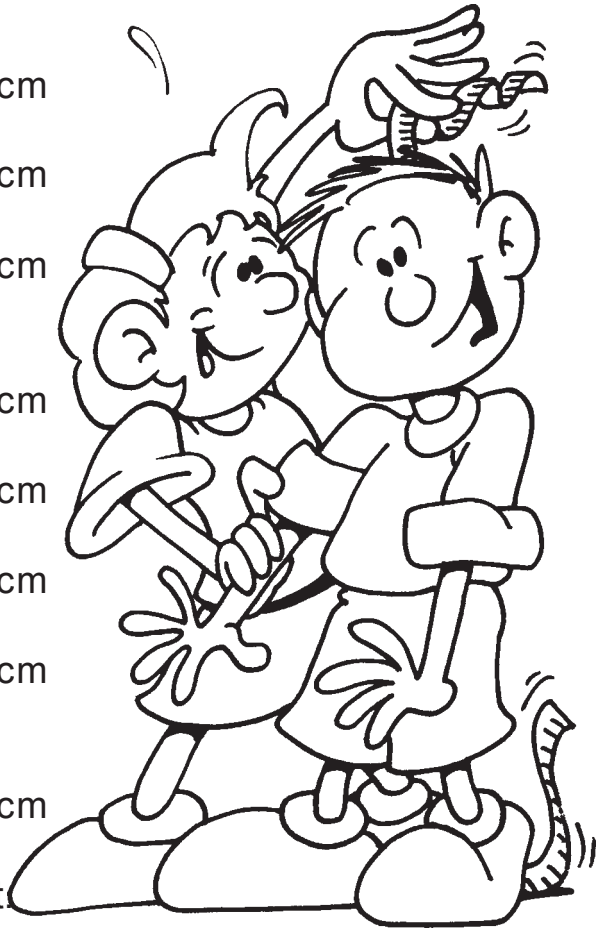
☐ Measure each of the following:

1. Heightcm
2. Distance around headcm
3. Length of armcm
(from underneath the arm)
4. Length of forearmcm
5. Distance around wristcm
6. Distance around waistcm
7. Length of calfcm
(from back of knee to heel)
8. Distance around anklecm

☐ Compare your height with your friend's height

Who is the tallest?

Who is the shortest?



Challenge:

Find someone else in the class who is the same height as you.

Name

Measuring With Arbitrary Units

What you need: a selection of objects that could be used for measuring (e.g. coloured rods, drinking straws, ice lolly sticks)

☐ Choose the best object to measure:

1. The length of your desk.

What did you use?

What was the length?

2. The length of the leg on your desk.

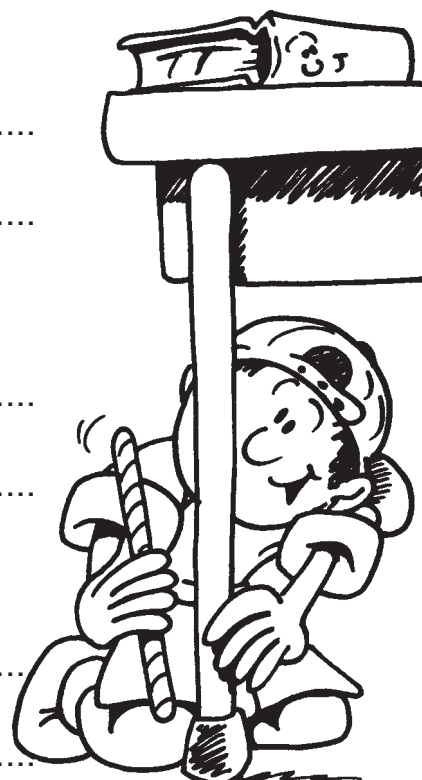
What did you use?

What was the length?

3. The length of your writing book.

What did you use?

What was the length?



☐ Compare your answers with a friend's. Which measures did you agree on?

.....

☐ How accurate were your methods of measurement?

.....

☐ What else could you use to measure with?

.....

Name

Measuring Time

What you need: pencil and paper
1 minute timer
skipping rope
tennis ball



Work in groups of 3 or 4.

- ☐ **How many times can you do each of the following tasks in one minute?**
Write your estimate for each task and then take turns to do each task for one minute.

How many times can you...	ESTIMATE	HOW MANY?
Print your name?		
Draw happy faces? 😊		
Bounce and catch a ball?		
Skip with a rope?		
Do step-ups?		

Challenge:

Find out what we measure in minutes in daily life.

.....

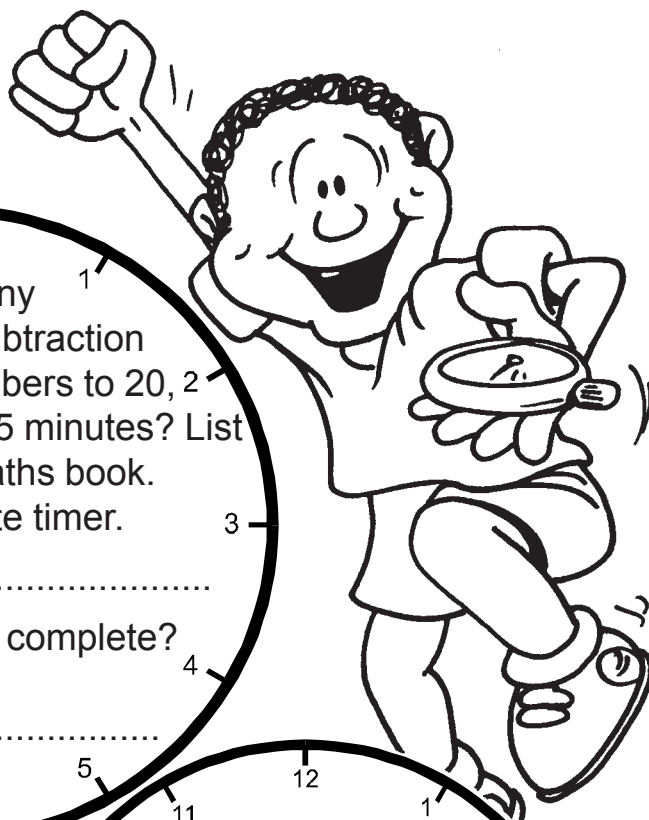
.....

.....

Name

Taking Time

What you need: timer
1 minute sand timer
stopwatch



How many addition and subtraction sums, using numbers to 20, can you complete in 5 minutes? List them in your Maths book. Use a 5 minute timer.

Estimate:

How many did you complete?
.....

Write out your spelling list words once. Ask a friend to time you with a stopwatch.

Estimate:

How long did it take?
.....

How many times can you write "TAKING TIME" in 1 minute? Use a 1 minute timer.

Estimate:

Number of times:

Challenge:

Name something that would take about the following times to complete:

1 minute:

5 minutes:

Several hours:

1 day:

Name

Telling the Time 1

☐ Use this TV guide for the activities on the next two pages.

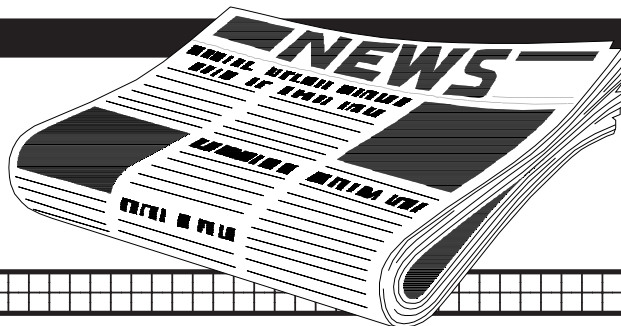
Saturday Television Guide

Channel XYZ

6:00	Pop Concert
9:00	Band Update
12:00	Countryline
12:30	Sport
6:00	Sea Adventurer
6:30	Spy Story
7:00	News
7:30	Heart Stopper
8:25	News
8:30	Police Drama
9:20	News
9:30	Music Review
11:00	Movie: Harry Rides the Waves

Channel 5

6:00	Schools' Cross Country
7:00	Saturday Cartoons
9:00	The Little Fish
9:30	City Watch
10:00	Trek the Universe
10:30	Tom's Whizz Experiments
11:00	Who's the Toughest?
12:00	Sport
1:30	Movie: Sandy Arrives
3:45	Special: Penguins
4:30	Endangered Planet
5:30	Let's Go Fishing
6:00	News
6:30	Sport: Football
9:00	Movie: Climb to the Stars



Challenge:

Find a daily TV programme and plan your viewing. You are allowed 3 hours only.

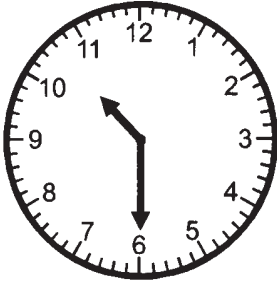
Write the names of the programmes, the start and finish times and how long each programme lasts.

Name

Telling the Time 2

☐ Use the TV guide from page 16.

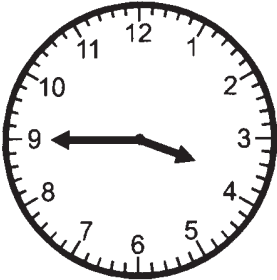
Write the names of programmes that start at the times shown.



1.

What is the next programme:

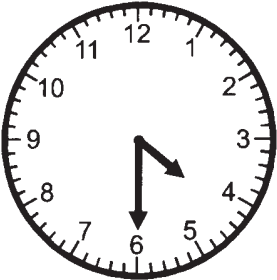
What time does it start?



2.

What is the programme before this one?

What time does it start?



3.

How long does this programme last?

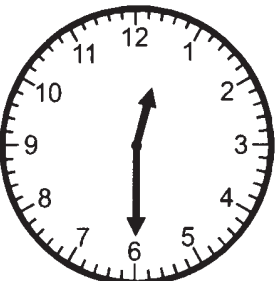
What time does it finish?



4.

How many minutes does this programme last?

What time does the next programme start?



5.

How long does this programme last?

What time does the next programme start?

Challenge:

Name 3 programmes that run for 30 minutes.

.....