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# Introduction

*ICT for primary maths* is intended to be used as a flexible resource, fitting easily into any mathematics programme. Each CD features ready-to-go activities.

## The structure of the lessons

This book contains:

- a teacher page for each activity providing the core information that you need to deliver an ICT component to your mathematics lesson.
- resource sheets for some activities to guide the students through using the programs. Older students will be able to use the programs independently, but younger students might need help in loading and using programs.
- activity sheets for most of the lessons. These can be used in one of the following ways:
  - to give the students practice and /or allow them to record answers before working on-screen
  - to record answers and give questions for the students to tackle whilst using the computer as a tool
  - to give extension work to complete after working on-screen.

## Programs

Applications include multimedia, spreadsheets and branching databases. The CD provides ready-to-go activities based in both pre-loaded software and in applications that you are already using. This mixture offers the opportunity to introduce the students to new software and extend their skills in programs they are already familiar with.

## The Main program – HyperStudio®

The CD contains all the files needed to run HyperStudio and it can be installed quickly on to a single computer or network of computers. Once installed and loaded, click on 'Activities' to access all the HyperStudio activities and view the contents for all the programs. Activities include drag and drop work, multi-choice questions, and data

logging. From here you can also access the teaching activities (see below). You need to install Quicktime 3.0 or higher to run this. This can be installed from [www.apple.com/quicktime/download](http://www.apple.com/quicktime/download)

## Branching database

All the branching databases are available in HyperStudio.

## Spreadsheets

The spreadsheets require Microsoft Excel. To open the Excel spreadsheet programs follow these steps:

1. click on My computer
2. click on C drive
3. click on program files
4. click on ICT for Primary Maths Year 6
5. click on Excel files
6. select the worksheet by clicking on it

## Teaching Activities

Each CD includes different multimedia teaching tools appropriate for the year group. These are flexible tools for direct interactive maths teaching. They include clocks, number lines and squares, money and flip numbers for place value. No specific lesson activities are given with these as they can be used flexibly within any maths lesson, including projecting on to a white board.

## Installation

If you wish to evaluate the contents of the CD-ROM, please be advised that you may install the software on a single, stand-alone PC only and not on a server.

Once you have purchased the product on firm sale, you are entitled to network the software or use it concurrently on more than one machine.

If you decide not to keep the product after inspecting it, you are obliged to uninstall the software from the single PC. This can be done simply by going to the relevant maths ICT folder in Program Files and double-clicking on Unwise.exe

# Lesson Plan

Title

## File needed

Indicates the name and type of file needed for the activity. The files are either Main program (HyperStudio) or spreadsheets (Excel).

## Activity

A description of the CD activity.

## Ordering Numbers

Activity 1

### The activity

This activity involves dragging sections of a number line into place as an on-screen jigsaw puzzle. It has three levels, 1–10, 1–20 and 1–30. Working collaboratively, the students select the appropriate level and complete the number lines. The screens can be printed by pressing Ctrl and P.



## Learning objectives

Each lesson identifies the learning area.

### Learning objectives

- Order numbers and position them on a number line.

## Prior knowledge

Indicates maths and specific ICT knowledge that the students will need. It is assumed that the students have a basic knowledge of MS Windows including using a mouse to click and drag.

### Prior knowledge

- Familiarity with numerals to 20 and 30.

### Expected outcomes

- ◆ Most students will order numbers to 20.
- ▶ Some students will order numbers to 30.
- Some students will order numbers to 10.

## Expected outcomes

Shows expected outcomes for:

- ◆ most students
- ▶ more able students
- less able students.

### Resources

'Ordering Numbers'  
'What's Wrong with the Order?'  
'What Comes After?' is an extra extension sheet.  
A number line or 100 square may be useful to support this activity.

### Vocabulary

order	beside
biggest	above
smallest	below
before	in front
after	behind
between	next to

### Answers

'What's Wrong with the Order?'	'What Comes After?'	
4. 6 and 3	1. 6	6. 2
5. 6 and 4	2. 7	7. 4
6. 6 and 5	3. 8	8. 2
7. 8 and 5	4. 9	9. 1
8. 8 and 5	5. 8	

## Resources

This includes 'resource sheets' and 'activity sheets'.

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## Answers

Answers are included if applicable. If answers are marked on-screen then these are not included. Only answers to extra questions or non-marked questions are given.

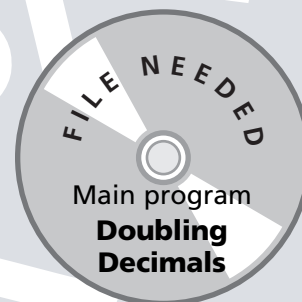
## Vocabulary

Key vocabulary has been suggested for the lesson.

# Doubling – Decimal Fractions

## The activity

The activity consists of a series of multiple-choice questions of increasing difficulty. On each screen the students must select the double from four possible answers. Every click they make is recorded and they get a running score.



## Learning objective

- Know by heart or derive quickly doubles of two-digit whole numbers or decimals.

## Prior knowledge

- Ability to double two-digit whole numbers and decimal fractions.

## Expected outcomes

- ◆ Most students will complete all of the screens with only a few mistakes.
- ▶ Some students will complete all of the screens with no mistakes.
- Some students may only complete the screens with support.

## Resources

'Match the Double 1' replicates questions the students will do on-screen.  
 'Match the Double 2' replicates questions the students will do on-screen.  
 'More doubles!' gives further questions.

## Vocabulary

double	decimal place
decimal fraction	tenth
digit	hundredth
decimal point	

## Answers

'More Doubles'

<b>1.</b> 6.4	<b>8.</b> 12.6	<b>15.</b> 9.2
<b>2.</b> 2.8	<b>9.</b> 14.2	<b>16.</b> 17.0
<b>3.</b> 4.4	<b>10.</b> 18.8	<b>17.</b> 19.2
<b>4.</b> 8.6	<b>11.</b> 9.4	<b>18.</b> 15.8
<b>5.</b> 6.2	<b>12.</b> 7.8	<b>19.</b> 11.4
<b>6.</b> 14.4	<b>13.</b> 3.0	<b>20.</b> 13.6
<b>7.</b> 10.8	<b>14.</b> 5.6	

Name:

Date:

# Match the Double 1

- Open the program Doubling Decimals.
- Put a circle around the double of each centre number.

<p>6.4                      8.6</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">3.4</span></p> <p>3.8                      6.8</p>	<p>6.4                      4.3</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">2.3</span></p> <p>4.6                      2.6</p>
<p>8.4                      8.2</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">4.2</span></p> <p>4.4                      4.8</p>	<p>2.1                      2.2</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">1.1</span></p> <p>1.2                      2.0</p>
<p>10.2                      5.4</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">5.2</span></p> <p>7.4                      10.4</p>	<p>16.8                      4.8</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">8.4</span></p> <p>8.8                      16.4</p>
<p>6.2                      12.1</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">6.1</span></p> <p>12.2                      2.6</p>	<p>9.6                      18.6</p> <p style="text-align: center;"><span style="border: 1px solid black; padding: 2px;">9.3</span></p> <p>18.3                      6.9</p>