



PHOTOCOPY  
MASTERS

# Digital Technologies: For Years 5 - 6. Book 1



By Magda Parker



# Contents

Introduction & Curriculum	4-5	<b>Section 2: Data Representation</b>	<b>32</b>
Sources	6	Binary Systems - Information	33
<b>Section 1: Technology - Past and Present</b>	<b>7</b>	Activity 18: Understanding Binary Code	34
Section 1 Teachers' Notes	8	Graph Paper For Activity 18	35
How Technology Has Changed Our Lives	9	Activity 19: Binary Systems	36
The Influence of Technology in our Daily Life	10	Activity 20: Building Your Binary Skills	37
Activity 1: Technology Journal	11	Activity 21: Let's Become Secret Agents!	38
Activity 2: Daily Technology	12	Bits and Bitmaps	39
Activity 3: Essential Items	13	Activity 22: Building Your Binary Skills 2	40
Activity 4: Technology Labelling	14	Activity 23: Coding Unplugged	41
Activity 5: Technology Sort	15	Activity 24: Create Your Own Bitmap	42
Activity 6: Imagine The Future	16	<b>Section 3: Software and Computer Applications</b>	<b>43</b>
A Short History of Computers and the Internet	17	Teachers' Notes	44
URLs	18	Internet Search Engines	45
Activity 7: URLs Find The Word	19	Activity 25: Google Search	46
Activity 8: URL Research	20	Activity 26: How Internet Searches Work 1	47
Activity 9: Scavenger Hunt	21	Activity 27: How Internet Searches Work 2	48
Activity 10: Positives and Negatives	22	Microsoft Word	49
Activity 11: Life Before	23	Activity 28: The Function of Word	50
Digital Systems: Hardware, Software and Peripheral Devices	24	Activity 29: All the Ways to Use Word	51
Activity 12: Hardware and Software	25	Activity 30: Create Using Word	52
Activity 13: Devices' Front Part	26	Microsoft Excel	53
Activity 14: Digital Systems' Crossword	27	Activity 31: Create a Smartie Pie-Chart	54
Inside Your Computer	28	Activity 32: Analysing Excel Data	55
Activity 15: Main Parts of a Computer 1	29	Activity 33: Student Survey and Data Collection	56
Activity 16: Main Parts of a Computer 2	30	Activity 34: Now It's Your Turn!	57
Activity 17: End of Unit Quiz	31	<b>Answers</b>	<b>58</b>

To access videos and websites providing background to this book go to:

<https://www.readyed.net/digital-technologies-for-years-5-6-book-1/>

Pages that are linked to online content will have this symbol on them: 



Technology has an essential role in people's everyday lives and life without it often seems unimaginable. We use technology every day to make our lives easier, quicker, and more convenient.

- Imagine you were stuck on a desert island and could only bring 3 different technological items that improve your quality of life. What would they be? Draw and explain why.  
Example: *My smartphone because I can use it to...*  
*(Learn, play games, find out information that I need, call someone)*

Sample

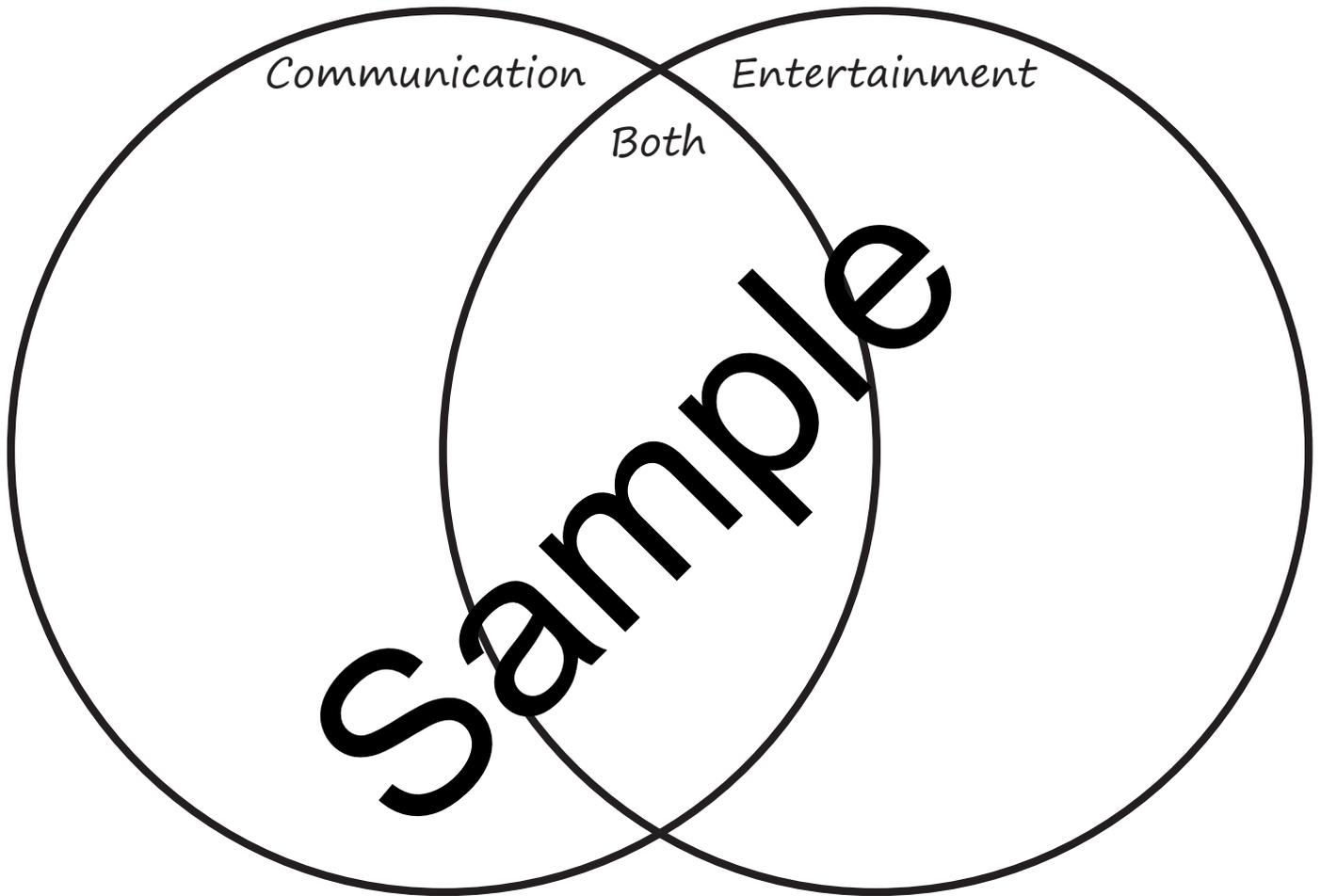
The illustration shows a man sitting on a desert island, looking thoughtful. He is surrounded by various items: a smartphone, a laptop, and a flashlight, each in a thought bubble. There are also seagulls, a crab, and a speech bubble saying "heh heh".

## Activity 5 Technology Sort



Can you sort these devices into the following categories?

digital camera	letter	old wall telephone
video cassette recorder	camera with film	smartphone
ipod	fax machine	DVDs and CDs
typewriter	laptop	old mobile phone
cassette player deck	record player	rotary phone



*Reasoning: Why did you place them in these categories?*

Communication: \_\_\_\_\_

\_\_\_\_\_

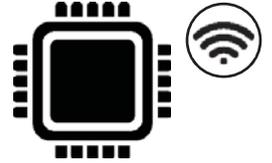
Entertainment: \_\_\_\_\_

\_\_\_\_\_

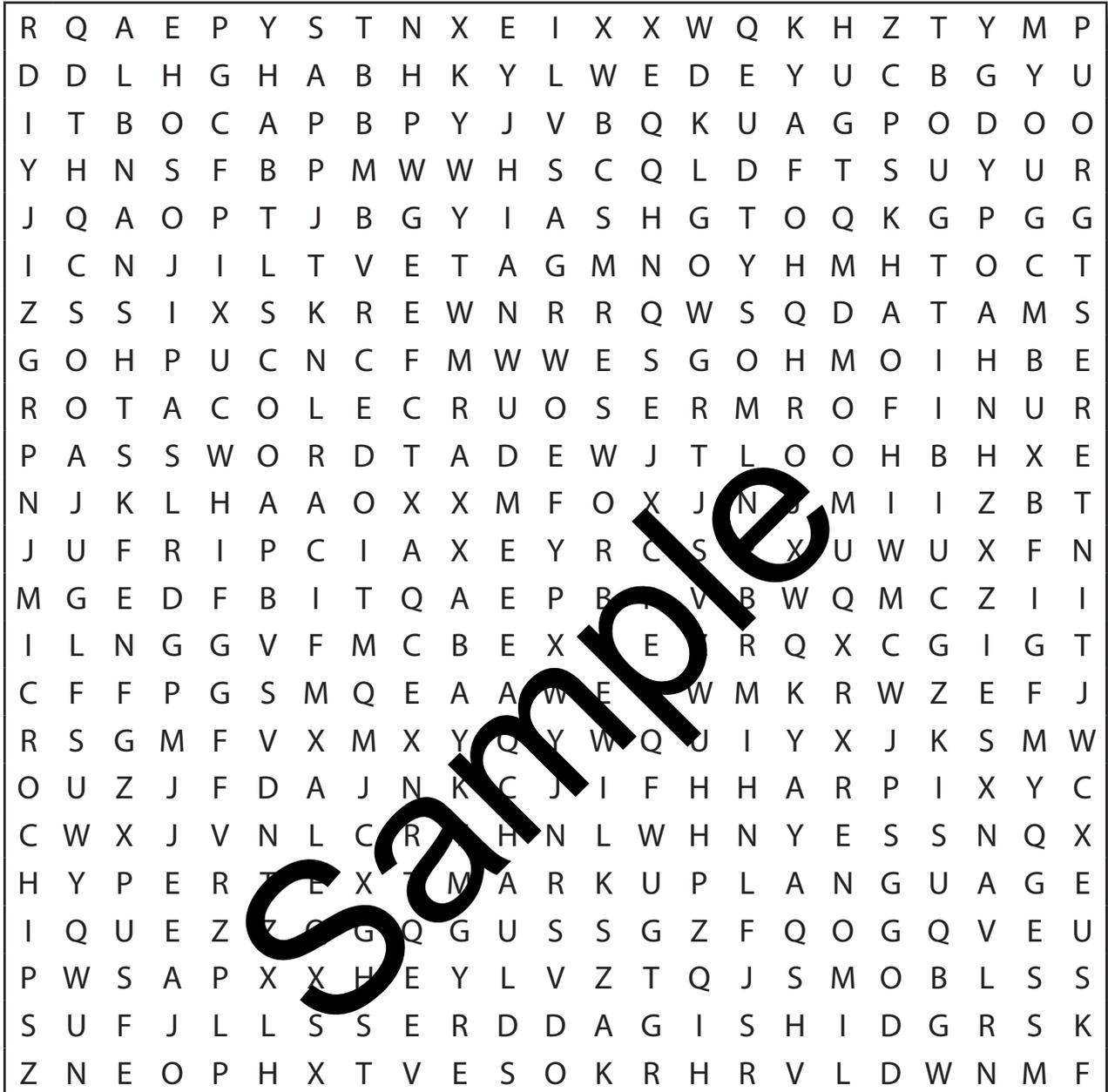
Both: \_\_\_\_\_

\_\_\_\_\_

## Activity 7 URLs Find The Word



Find words related to URLs in the word search below.



Words to find:



**ADDRESS**

**DOMAIN**

**EXTENSION**

**INTEREST GROUP**

**MICROCHIPS**

**PASSWORD**

**USERNAME**

**WEB BROWSER**

**WEBPAGE**

**WEBSITE**

**HYPERTEXT MARKUP LANGUAGE**

**UNIFORM RESOURCE LOCATOR**



Think about how life would have been simpler before internet access was so readily available.

- How would your parent/s lives have been different to yours, growing up? Draw in the thinking bubbles then list the differences.



Differences: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Activity 13 Devices' Flowchart



To buy a property, your parents must sign a contract their real estate agent has sent them via email. For this, they need to print the document, sign it by hand and scan it, so that they can send it back to their agent via email.

- ❑ Create a flow chart to record the different devices they need and whether the peripheral devices used are input or output devices.

\_\_\_\_\_ device

\_\_\_\_\_ device

\_\_\_\_\_ device



\_\_\_\_\_ device



Sample

# Activity 20 Building Your Binary Skills 1



Create a binary code bracelet by writing the corresponding binary code for each letter of your name.

*Reminder:*  
The binary system uses a code made up of 0 and 1s. Using this binary alphabet create a name bracelet using binary code:

A	01000001	J	01001010	S	01010011
B	01000010	K	01001011	T	01010100
C	01000011	L	01001100	U	01010101
D	01000100	M	01001101	V	01010110
E	01000101	N	01001110	W	01010111
F	01000110	O	01001111	X	01011000
G	01000111	P	01010000	Y	01011001
H	01001000	Q	01010001	Z	01011010
I	01001001	R	01010010		

Write your name out here in binary first, then fit it to the bracelet template and staple it together to make a binary code bracelet.

First letter \_\_\_\_\_ Second letter \_\_\_\_\_  
 Third letter \_\_\_\_\_ Fourth letter \_\_\_\_\_  
 Fifth letter \_\_\_\_\_ Sixth letter \_\_\_\_\_  
 Seventh letter \_\_\_\_\_ Eighth letter \_\_\_\_\_

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--





Use information from the "Create A Smartie Pie-Chart" page to answer these questions.

1. What does the chart tell you? \_\_\_\_\_  
\_\_\_\_\_
2. Which colour is the most common? \_\_\_\_\_
3. Which the least? \_\_\_\_\_
4. How many Smarties are there in total? \_\_\_\_\_
5. What percentage of the Smarties are red? \_\_\_\_\_
6. Can you write this as a fraction? \_\_\_\_\_
7. Can you convert it into a decimal? \_\_\_\_\_
8. How likely are you to get green Smarties using your data? \_\_\_\_\_  
\_\_\_\_\_
9. How does the data change when you deduct 10 red Smarties from the list? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. Compare your pie-chart to a friend and discuss the similarities and differences below:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
11. What other ways could you display this data using Excel? \_\_\_\_\_  
\_\_\_\_\_
12. Which display would be the most useful to demonstrate the capabilities of Excel?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample

