

# INSPIRE COMPUTING

*International*

Workbook

**YEAR 7**

Name: \_\_\_\_\_

Class: \_\_\_\_\_

# ***INSPIRE COMPUTING***

*International*

Workbook

**YEAR 7**

**Paul Clowrey**



Pearson

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# Welcome to Inspire Computing!

So many of us now use computers every day of our lives. Whether for school, fun, work or staying in touch with relatives around the world computer technology is all around us.

This book covers both ICT and Computer Science topics that will help you discover how this amazing technology works, how it connects the world together, and how it has revolutionised the classroom, workplace, and home.

## Learning objectives

This is what you will know or be able to do by the end of the lesson.

## Activity

You might need to write or draw an answer, circle pictures or words, or tick or match answers.

**The internet and the world wide web**

**1. Learning objectives**

- Understand the terms internet and world wide web (WWW).
- Know how to spot a fake or spoof website.
- Understand the importance of being respectful and staying safe online.

**2. Starter activity**

Draw a line from the term to its description

The internet: The shared pages of content that we access from our computers or smartphones.

The world wide web: A network of connected computers around the world.

**3. Online confusion**

Describe the difference between the internet and the world wide web.

**4. Uses of the internet**

Describe three different ways in which we use the internet.

- .....
- .....
- .....

**1. Key word definitions**

Tick the word or phrase when you know its meaning.

<input type="checkbox"/> digital divide	<input type="checkbox"/> post
<input type="checkbox"/> email	<input type="checkbox"/> spoof
<input type="checkbox"/> fake	<input type="checkbox"/> streaming
<input type="checkbox"/> internet	<input type="checkbox"/> web browser
<input type="checkbox"/> network	<input type="checkbox"/> email
<input type="checkbox"/> online gaming	<input type="checkbox"/> wireless
<input type="checkbox"/> online shopping	<input type="checkbox"/> world wide web (WWW)

## Key words definitions

Test your knowledge of the key word

## Instruction

Read this carefully to know what to do.

## 8. Plenary quick quiz

### Plenary quick quiz

A fun way to test what has been understood from the lesson.

Question 1	Question 2	Question 3	Question 4	Question 5
True or false? Only online videos can be embedded in a slide.	Name the device required to record sound.	What is the movement from one slide to another called?	True or false? If the website changes, any embedded content will disappear.	Which of the following is not a form of interactivity?
<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> speaker <input type="checkbox"/> projector <input type="checkbox"/> mouse <input type="checkbox"/> microphone	<input type="checkbox"/> text box <input type="checkbox"/> transition <input type="checkbox"/> animation <input type="checkbox"/> sound effect	<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> navigation <input type="checkbox"/> website links <input type="checkbox"/> use of logos <input type="checkbox"/> sound clips

We hope that you will find this book useful to develop your knowledge of computer technology, how to use computers effectively and how to write your own computer programs using Python.

Each topic will provide an opportunity for you to demonstrate your understanding of theory with real-world examples and a range of stimulating write-in activities. You can also test your knowledge of keywords and regular exam-quality questions with supported answers. A checkpoint at the end of each lesson is a quick and easy way to check your own understanding.

### Short answer questions

Questions to solidify your learning and prepare you for your exam.

Unit 5: Programming Part 1: End-of-unit assessment

### Unit 5: Short answer questions

**1. A typical 4-mark question**

You are teaching a class of young students about databases and the importance of relational operators.

Describe the purpose of relational operators and give the function of at least three operators.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**2. Another 4-mark question**

You are starting a new job at a large programming organisation that creates large-scale computer models and simulations.

Describe the difference between a model and a simulation. Include an example of each.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Unit 5: Programming Part 1: Revision checklist

### Revision checklist

	MIND MAP	MISSING WORDS	WRITE A QUIZ	FLASHCARDS	COVER AND WRITE
US L1 - An introduction to programming					
US L2 - Sorting algorithms					
US L3 - Using operators					
US L4 - BIDMAS					
US L5 - Relational operators					
US L6 - Using variables					
US L7 - Sequence, selection and iteration					
US L8 - Modelling and simulations					
US L9 - Error checking					
US L10 - Subprograms					

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### Revision checklist

Ensuring that you are covering all revision forms for your learning and finding what works best for you!

# The internet and the world wide web

## Learning objectives

1. Understand the terms internet and world wide web (WWW).
2. Know how to spot a fake or spoof website.
3. Understand the importance of being respectful and staying safe online.

## 1. Key word definitions

Tick the word or phrase when you know its meaning.

<input type="checkbox"/> digital divide	<input type="checkbox"/> post
<input type="checkbox"/> email	<input type="checkbox"/> spoof
<input type="checkbox"/> fake	<input type="checkbox"/> streaming
<input type="checkbox"/> internet	<input type="checkbox"/> web browser
<input type="checkbox"/> network	<input type="checkbox"/> wired
<input type="checkbox"/> online gaming	<input type="checkbox"/> wireless
<input type="checkbox"/> online shopping	<input type="checkbox"/> world wide web (WWW)

## 2. Starter activity

Draw a line from the term to its description

The internet

The shared pages of content that we access from our computers or smartphones.

The world wide web

A network of connected computers around the world.

## 3. Online confusion

Describe the difference between the internet and the world wide web.

.....

.....

.....

.....

## 4. Uses of the internet

Describe three different ways in which we use the internet.

1. ....
2. ....
3. ....

## 5. Fake or spoof websites

Describe an example of a fake or a spoof website.

.....

.....

.....

## 6. Safety questions

Give four examples of questions you could ask to ensure you use the internet safely.

1. ....
2. ....
3. ....
4. ....

## 7. A little respect

Look at the four behaviours below. Which are respectful, and which are not? Tick your choices.

Behaviour	Respectful	Not respectful
Spreading rumours about someone you know online		
Being polite in all your messages		
Sharing images of someone without their permission		
Refusing to use bad language online		

## 8. Plenary quick quiz

Question 1	Question 2	Question 3	Question 4	Question 5
Which word describes a website full of untrue information?	True or false? The internet and the WWW are the same thing.	Name the application we use to surf the WWW.	Which of the following is not a popular internet activity?	True or false? Anyone can post information online and claim it is true.
<input type="checkbox"/> true <input type="checkbox"/> spoof <input type="checkbox"/> proof <input type="checkbox"/> correct	<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> calculator <input type="checkbox"/> search engine <input type="checkbox"/> email <input type="checkbox"/> web browser	<input type="checkbox"/> online gaming <input type="checkbox"/> movie streaming <input type="checkbox"/> running <input type="checkbox"/> online Shopping	<input type="checkbox"/> true <input type="checkbox"/> false

# Presentation-based projects

## Learning objectives

1. Understand the importance of a target audience for project work.
2. Know how to analyse a given brief.
3. Understand and apply key presentation terminology.

## 1. Key word definitions

Tick the word or phrase when you know its meaning.

<input type="checkbox"/> animation	<input type="checkbox"/> master slide
<input type="checkbox"/> design theme	<input type="checkbox"/> slides
<input type="checkbox"/> font	<input type="checkbox"/> target audience
<input type="checkbox"/> graphic	<input type="checkbox"/> transition
<input type="checkbox"/> layout	

## 2. Starter activity

Give three key elements of a project brief.

1. ....
2. ....
3. ....

## 3. Target audience

List three elements that are used when describing the term 'target audience'.

1. ....
2. ....
3. ....

## 4. Presenting

Look at the five activities below. Where might a presentation be used? Tick your choices.

Activity	Used	Not used
A job interview		
A spreadsheet of business costs		
Creating a magazine cover		
A new phone product launch to a large crowd		
Teaching a geography lesson		

## 5. Effects

Describe the difference between an animation and a transition.

.....

.....

.....

## 6. Presentation features

Briefly describe the following presentation terms.

1. Slides: .....

.....

2. Layout: .....

.....

3. Design themes: .....

.....

4. Master slide: .....

.....

## 7. Presentation tips

Look at the four activities below. Which should be done when creating a presentation and which should not? Tick your choices.

Activity	Should be done	Should not be done
Space out text, images and graphics.		
Link to videos and websites without checking them first.		
Choose one style and stick with it throughout.		
Use as many effects and animations as possible.		

## 8. Plenary quick quiz

Question 1	Question 2	Question 3	Question 4	Question 5
Editing which of the following will change every slide in a presentation?	True or false? Different slides can have different background colours.	Which option describes a person's employment and family situation?	Which word describes the effect used to move between two slides?	True or false? Presentations are normally multimedia documents.
<input type="checkbox"/> transition <input type="checkbox"/> layout <input type="checkbox"/> master slide <input type="checkbox"/> slide notes	<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> age <input type="checkbox"/> geographical factors <input type="checkbox"/> target audience <input type="checkbox"/> socio-economic factors	<input type="checkbox"/> font <input type="checkbox"/> transition <input type="checkbox"/> animation <input type="checkbox"/> interactivity	<input type="checkbox"/> true <input type="checkbox"/> false

# Creating a storyboard for a presentation

## Learning objectives

1. Understand the importance of planning a presentation.
2. Understand the key elements of a storyboard.
3. Know how to plan a storyboard to meet the user's needs.

## 1. Key word definitions

Tick the word or phrase when you know its meaning.

<input type="checkbox"/> graphical elements	<input type="checkbox"/> slide
<input type="checkbox"/> hyperlink	<input type="checkbox"/> storyboard
<input type="checkbox"/> navigation	<input type="checkbox"/> text

## 2. Starter activity

Give three features of a storyboard.

1. ....
2. ....
3. ....

## 3. Why are storyboards used?

Give two reasons for creating a storyboard.

1. ....
2. ....

## 4. True or false?

Are the following statements about storyboards true or false? Tick your choices.

Statement	True	False
Pre-visualisation describes the sound effects that will be used in a presentation.		
Video games designers do not use storyboards.		
Film directors use storyboards to plan filming.		

## 5. Essential elements

Look at the six elements below. Which would normally be included in a storyboard? Tick your choices.

Element	Included	Not included
Slide headings or titles		
The type of computer that will be used		
Text to be included on the slides		
A description of the potential audience		
Potential timings		
Sketches to represent images or a text box describing an image		

## 6. Navigation

List three navigational tools that can be added to a storyboard.

1. ....
2. ....
3. ....

## 7. Effective presentations

Describe how you can make a presentation as effective as possible.

.....

.....

.....

## 8. Plenary quick quiz

Question 1	Question 2	Question 3	Question 4	Question 5
True or false? A storyboard is a text-only document.	How many storyboard boxes should be used per slide?	Which of the following would not be planned using a storyboard?	True or false? Action buttons resemble those found on a DVD menu.	What does the term 'linear' refer to when creating a storyboard?
<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 1	<input type="checkbox"/> video game <input type="checkbox"/> spreadsheet <input type="checkbox"/> film <input type="checkbox"/> presentation	<input type="checkbox"/> true <input type="checkbox"/> false	<input type="checkbox"/> random order <input type="checkbox"/> reverse order <input type="checkbox"/> in order <input type="checkbox"/> order is not important

# Internet research

## Learning objectives

1. Safely search the internet for text, images and downloadable content.
2. Understand the importance of carefully judging online sources.
3. Develop an awareness of copyright.

## 1. Key word definitions

Tick the word or phrase when you know its meaning.

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> content   | <input type="checkbox"/> resource      |
| <input type="checkbox"/> copyright | <input type="checkbox"/> save          |
| <input type="checkbox"/> download  | <input type="checkbox"/> search engine |
| <input type="checkbox"/> judge     | <input type="checkbox"/> search term   |
| <input type="checkbox"/> key word  | <input type="checkbox"/> source        |
| <input type="checkbox"/> reliable  | <input type="checkbox"/> web browser   |

## 2. Starter activity

Describe what is meant by the term 'search engine'.

.....

.....

.....

## 3. Advanced search

Which of the following options can normally be found within an advanced search tool? Tick your choices.

Option	Yes	No
Search for specific file types		
Search within a particular time period		
Select only events you were part of		
Only show results in a particular colour		
Exclude specified terms		

## 4. Search engines

List the names of three common search engines.

1. ....
2. ....
3. ....