

# Strategic Searching Online

Computing | Year 5 | Planning Overview

## Introduction

In this unit about Strategic Searching Online, children will learn to use search engines with increasing efficiency. They will learn how to refine their searches using various techniques, such as using Boolean operators and using keywords. Children will also learn to look for clues to decide if a website can be trusted and whether the information presented is reliable. They will also learn how search engines work and how their search returns are ranked in a particular order. Finally, children will begin to learn how to get a web page towards the top of a returned search and will evaluate a web page based on search engine optimisation criteria. Accompanying this unit is a helpful [Subject Knowledge Organiser](#), which collates the subject knowledge for the unit and is used throughout this unit.

## Hardware and Software

### Hardware

- Access to PC devices, such as laptops, Chromebooks and/or tablets.

### Software

- Access to web browsers, safe child-friendly search engines and links provided on lesson plans.

## Health and Safety

Children should be encouraged to have good posture and sit up to the computer. Children should not spend extended periods of time looking at the screen. Ensure safe and responsible use of portable digital devices, discouraging children moving around the classroom with technology. Make sure that food and drink are kept away from all electronic items.

## Home Learning

In this task, children should use a search engine to find the answers to questions. The answers to the questions will reveal a hidden word.

In this task, children should complete the suggested searches using the fewest words possible. They are then challenged to complete searches using Boolean operators.

## Disclaimers

### Safe Searching:

This unit involves children searching on the Internet. Please be mindful of search terms/topics used and connotations that could result in inappropriate links and pages. Child-friendly search engines are advised. Ensure your firewall settings are set at the appropriate levels necessary and your anti-virus software is up to date. It is good practice to ensure screen content can be seen at all times and that children know what to do if they see something on the Internet that makes them feel uncomfortable.

### Digital and Online Safety:

Children should be shown how to use the Internet safely and responsibly. Children should be consistently reminded of the SMART rules for online safety. Devices should be used in a public area with screens visible at all times.

### External Links:

We hope you find the information on our website and resources useful. This resource contains links to external websites and/or external apps. Please be aware that the inclusion of any link in this resource should not be taken as an endorsement of any kind by [Twinkl](#) of the linked website and/or app, or any association with its operators. You should also be aware that we have no control over the availability of the linked pages and/or apps. If the link is not working, please let us know by contacting [TwinklCares](#) and we will try to fix it although we can assume no responsibility if this is the case. We are not responsible for the content of external sites and/or external apps.

### Assessment Statements

By the end of this unit...

#### Working Towards the Expected Level:

- Children can search for information using appropriate search engines.
- Children can refine their searches using appropriate keywords.
- With support, children can begin to use strategies to check the reliability of information on web pages.
- With support, children can begin to explain how search engines work using some key vocabulary.
- Children can talk about the way search results are selected and ranked.
- Children can explain what search engine optimisation (SEO) is.

#### Working At the Expected Level:

- Children search for information using appropriate search engines and can refine their search terms by using keywords.
- Children can refine their searches using Boolean operators with some guidance.
- Children can use strategies to check the reliability of information on web pages.
- Children can explain how search engines work using key vocabulary, such as web indexing and web crawlers.
- Children can understand that search results are ranked and can explain how page ranking works.
- Children can explain what search engine optimisation (SEO) is and can suggest some SEO improvements for a web page.

#### Working At Greater Depth:

- Children search for information using appropriate search engines and can refine their search terms by using keywords and Boolean operators.
- Children can confidently use strategies to check the reliability of information on web pages.
- Children can explain, with confidence, how search engines work using correct terminology and key vocabulary.
- Children can understand that search results are ranked and can confidently explain how page ranking works.
- Children can explain what search engine optimisation (SEO) is and can confidently suggest some SEO improvements for a web page.

## Lesson Breakdown

### 1. Search Engines

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To find out information on the Internet using search engines.

#### Resources

- Access to PC devices, such as laptops, Chromebooks and/or tablets.

#### Software:

- Access to web browsers, safe search engines and links provided on lesson plans.

#### Additional Lesson Information and Possible Misconceptions

A common misconception addressed in this lesson is that the search engine Google is the Internet. Children will learn the difference between the Internet and the World Wide Web and that search engines are stored on the World Wide Web. Children may also have misconceptions on the difference between a web browser and a search engine. It is important for children to know that a web browser is an application software we access, such as Google Chrome, Mozilla Firefox or Microsoft Edge. A search engine is an online tool that makes it easier for you to find a website or information based on an input.

Children will be asked to complete searches using an appropriate search engine. It is important that children have access to search engines and understand there are multiple search engines that can be used.

### 2. Refining Searches and Using Boolean Operators

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To use a search engine effectively by refining the search term.

To know how to use Boolean operators to refine a search.

#### Resources

#### Hardware:

- Access to PC devices, such as laptops, Chromebooks and/or tablets.

#### Software:

- Access to web browsers, safe search engines and links provided on lesson plans.

#### Additional Lesson Information and Possible Misconceptions

It is important that children have a good grasp on how to perform a search using a search engine before this lesson. If children have had experience with computer programming, they may be familiar with the term Boolean operators. The Boolean operators used in search engines are fewer and less complex than those used in programming languages. It is also important to note that some search engines use a hyphen (-) directly before the word rather than NOT. For example: pet -dog.

### 3. Trusted Pages

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To identify what makes a website reliable and trustworthy.

#### Resources

- Two different coloured pencils, pens or highlighters
- Whiteboards and pens

#### Software:

- Access to links provided on lesson plan.

#### Additional Lesson Information and Possible Misconceptions

**Fake Websites:** Included in this lesson pack, a resource contains 'fake' website URLs. These URLs should not be attempted to be viewed. These were 'fake' at the time of print. We do not accept responsibility should these websites become live in the future.

**Online Video Resource:** This resource contains links to external video websites. These websites often have autoplay features meaning that other videos will play after the video you are watching finishes. You should disable this feature before using the video in any classroom or similar setting.

#### 4. How Search Engines Work: Web Crawlers and Web Indexing

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To understand how search engines work.

#### Resources

- Whiteboards and pens

#### Additional Lesson Information and Possible Misconceptions

When children are completing the differentiated \_\_\_\_\_, it is recommended that the classroom is made a safe environment for children to search for specific equipment and that all equipment is accessible for children to find.

#### 5. How Search Engines Work: Page Ranking

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To understand and explain what page ranking is.

#### Resources

##### Hardware:

- Access to PC devices, such as laptops, Chromebooks and/or tablets.

#### Additional Lesson Information and Possible Misconceptions

It is recommended that all web pages used within the lesson are opened prior to the lesson starting. The web pages used within the **Lesson Presentation** and suggested search terms can be altered to fit children's needs and learning.

It is recommended that in order to complete **Page Ranking: Comparing Search Engines Activity Sheet**, appropriate search engines are chosen prior to the lesson e.g. Google, Microsoft Bing, KidRex, Kiddle.

#### 6. Search Engine Optimisation

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

To use SEO to improve a web page.

#### Resources

- Highlighters

##### Hardware:

- Access to PC devices, such as laptops, Chromebooks and/or tablets.

#### Additional Lesson Information and Possible Misconceptions

The main task within this lesson is recommended to be used as assessment opportunity. When children are completing research-based searching for their main task, it is important that they are supervised at all times.