



# **Purple Mash Computing Scheme**

## **Effective Searching**

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## Overview

This unit teaches children to use search technologies effectively by selecting clear keywords, understanding how results are ranked, refining searches for accuracy, and evaluating online content to judge whether it is reliable and trustworthy.

## Key Learning

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- To understand what a search engine is, how it works and how to use simple keywords to find information online.
- To understand how search engines collect, sort and rank results, and why some results appear first.
- To learn advanced ways to improve searches so we can find the most accurate and useful results quickly.
- To develop strategies to judge whether information online is true and if sources can be trusted.

## Knowledge Organiser and Learning Mat

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These resources can be used to support learning across the unit.

- [Knowledge Organiser](#)
- [Learning Mat](#)

## Concept Map and Quiz

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Use these resources to gauge children's understanding before or after the unit has been taught.

- [Concept Map](#)
- [Quiz](#)

# Lesson 1: Searching The Internet

## Aim

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- To understand what a search engine is, how it works and how to use simple keywords to find information online.

## Success Criteria

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- I can name at least one search engine.
- I can describe how a search engine finds and shows information.
- I can use simple keywords to look something up online.

## Preparation

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- Check the external links used in this lesson for any inappropriate content.
- Print and cut out a set of **Questions and Keyword Cards** for every pair or small group.
- Print out a copy of the **Recording Sheet** for each pair or small group.

Please find all lesson resources and additional teaching notes below.

## Resources

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- [Slideshow - Lesson 1](#)
- [Question and Keyword Cards](#)
- [Recording Sheet](#)

## Teaching Notes

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You will need to decide which search engine you would like children to use - some options which label themselves as 'child friendly' are suggested in the slideshow, although we strongly advise checking any links before allowing children access.

## Lesson 2: Ranking Results

### Aim

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- To understand how search engines collect, sort and rank results, and why some results appear first.

### Success Criteria

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- I can explain that search engines find and sort information from many websites.
- I can describe in simple terms how search engines decide the order of results.
- I can explain why the first result might not always be the best.

### Preparation

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- Print off the **Webpage Cards**. There are four pages, you will be giving one page to each pair.

Please find all lesson resources below.

### Resources

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- [Slideshow - Lesson 2](#)
- [Webpage Cards](#)

## Lesson 3: Advanced Searching and Filtering

### Aim

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- To learn advanced ways to improve searches so we can find the most accurate and useful results quickly.

### Success Criteria

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- I can refine a search to make it more specific.
- I can use filters to find the type of results I need (e.g. images, news, videos, date).
- I can check result snippets before clicking to choose the most useful link.

### Preparation

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- Check external links for inappropriate content before the lesson.
- Set **Search Lab Challenge** as a 2Do.

Please find all lesson resources and additional teaching notes below.

### Resources

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- [Slideshow - Lesson 3](#)
- [Search Lab Challenge](#)

### Teaching Notes

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You will need to check that the search engine you are using has access to filters, exact match searching and minus signs. It might be that children need to use the standard Google search engine for this activity.

Slide 7 will require the teacher to model the different refining techniques. Ensure that you know how to use the various filters beforehand. You may wish to use these prompts for searching:

- quotation marks: "rules of netball"
- minus sign: mercury -planet
- videos filter: rainforest animals
- image filter: tigers
- past week filter: chocolate recipes

Whilst we have not referred to the AI search results in the lessons, you may wish to point out to the children that on some search engines, AI results come up first. These results

pool lots of different results together to give you one answer. It is at your discretion if you wish to address this with the children.

## Lesson 4: Can We Trust What We Find Online?

### Aim

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- To develop strategies to judge whether information online is true and if sources can be trusted.

### Success Criteria

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- I can tell the difference between a fact, an opinion and a belief.
- I can explain what fake news is and why someone might create it.
- I can use clues to decide if something online is trustworthy or not.

### Preparation

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- Print out the **Fact-Check Headlines**, one set per pair.
- Set the **Fact-Check Investigation Sheet** as a 2Do.

Please find all lesson resources below.

### Resources

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- [Slideshow - Lesson 4](#)
- [Fact-Check Headlines](#)
- [Fact-Check Investigation Sheet](#)

## Assessment

The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

### Emerging

- Children can name at least one search engine and carry out a basic search using simple keywords, though they may still type full questions and get less focused results. They can describe in simple terms that search engines show information from many websites. They might recognise that the first result is not always the best but need help deciding which is most useful. They can use search filters with support. They can sometimes tell the difference between a fact, opinion, and belief but may struggle to explain why a source is trustworthy or spot fake news without guidance.

### Expected

- Children can explain what a search engine is, describe how it finds and shows results, and use clear keywords instead of full questions to get focused results. They understand that search engines rank results based on relevance, popularity, and sometimes paid adverts, and can explain why the first result might not always be the most reliable. They can refine searches by using techniques like quotation marks, minus signs, and filters for type or date, and check snippets before clicking to choose the most useful link. They can distinguish between facts, opinions, and beliefs, explain what fake news is, and use clues such as the source, date, and evidence from other sites to check reliability. They apply these skills with some independence, making thoughtful choices about which search results and sources to trust.

### Exceeding

- Children can confidently explain in detail how search engines crawl, index, and rank results, including the roles of relevance, popularity, freshness, and advertising. They independently choose and adapt precise keywords, using advanced search operators like quotation marks, minus signs, and filters. They compare results from different search engines, evaluate snippets critically, and can explain why some results appear higher than others. They are skilled at assessing the trustworthiness of online content, consistently identifying whether information is a fact, opinion, or belief, and explaining reasoning clearly. They spot fake news by recognising unreliable sources, altered images, or unsupported claims, and cross-check with multiple trusted websites.