

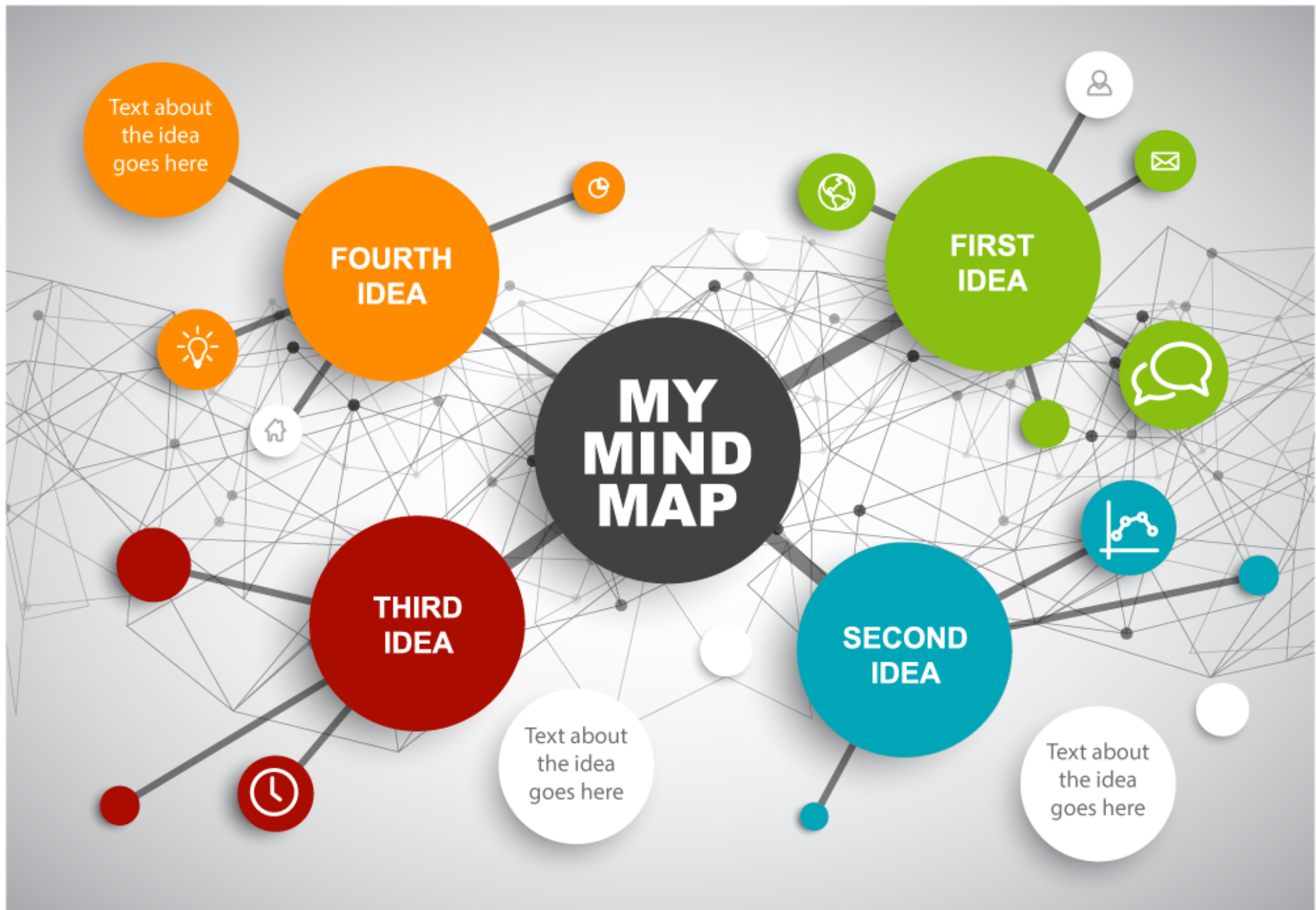
# CHE1102: Literature Searching and Finding the Evidence

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# For your convenience:

- File for exercise is: <https://bit.ly/3btu6bE>
- I will send slides after the session – feel free to contact me with follow up questions!

Keywords

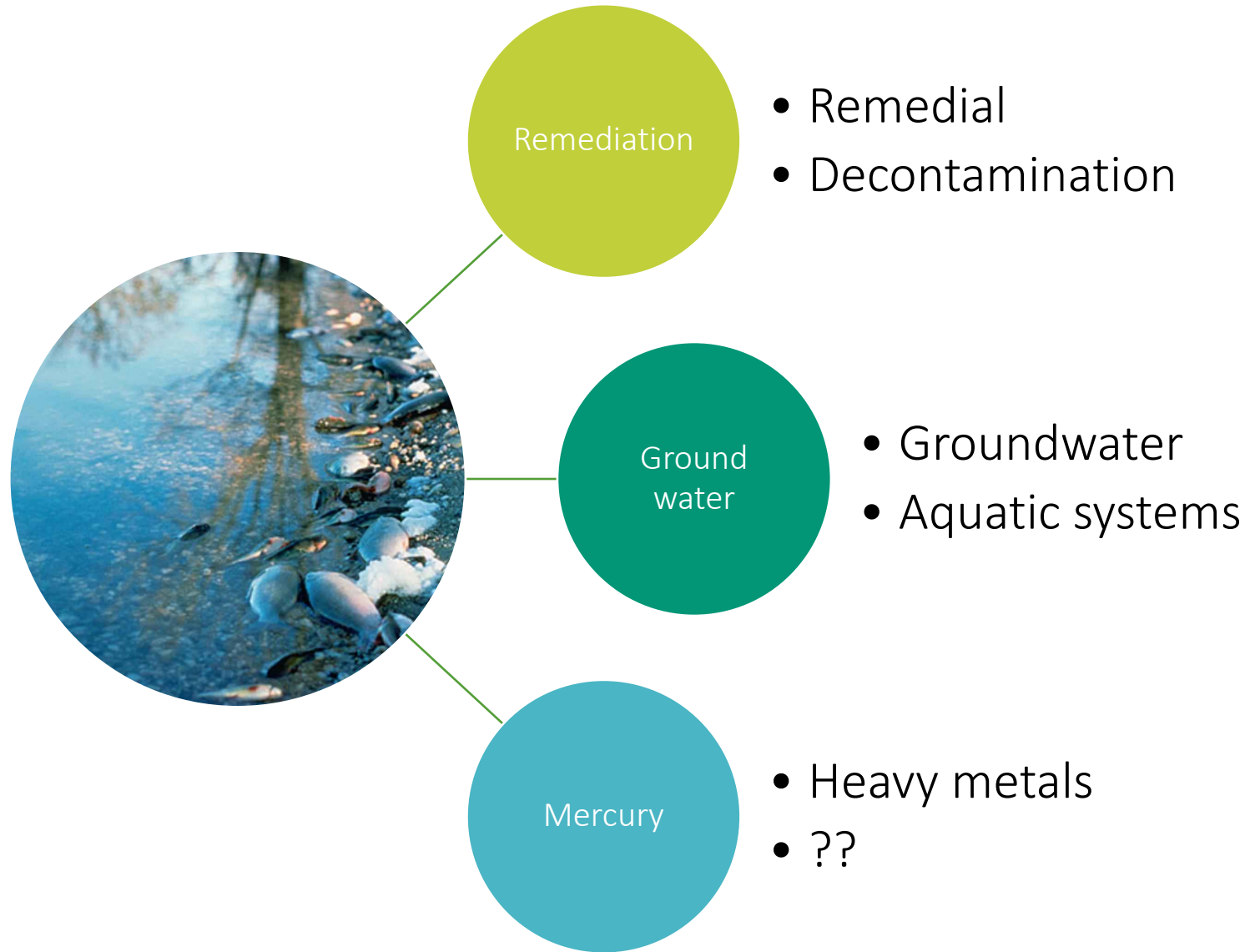


# Example question

The remediation of mercury from contaminated groundwater

# Synonymize your search terms

Concepts	Related term	Related term	Related term
remediation	remedial	decontamination	
groundwater	aquatic systems	ground water	
mercury	heavy metals		



# What makes a good keyword?

- It means something on its own
- Others are likely to use it





# Avoid using these as keywords



Verbs: e.g., socialize



Relationship words: compare, contrast, correlation, causation, relationship, impact, increase



Judgment words: best, worst, pro, con, advantages, disadvantages



Plurals: use truncation \* at the word's root instead

# From concepts to keywords

- Write down one of the questions that you need to investigate
- Underline/circle the key concepts = keywords
- Fill in a keyword table or map

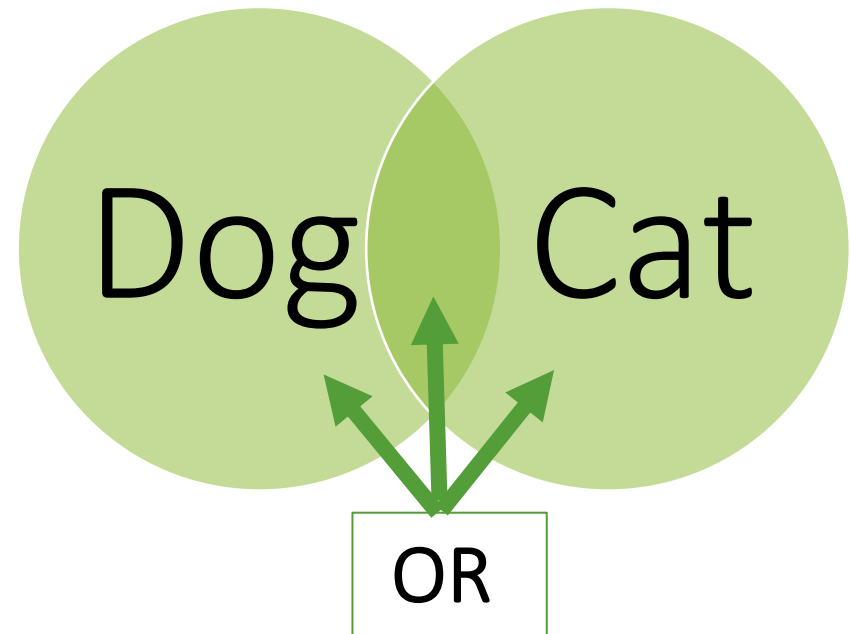
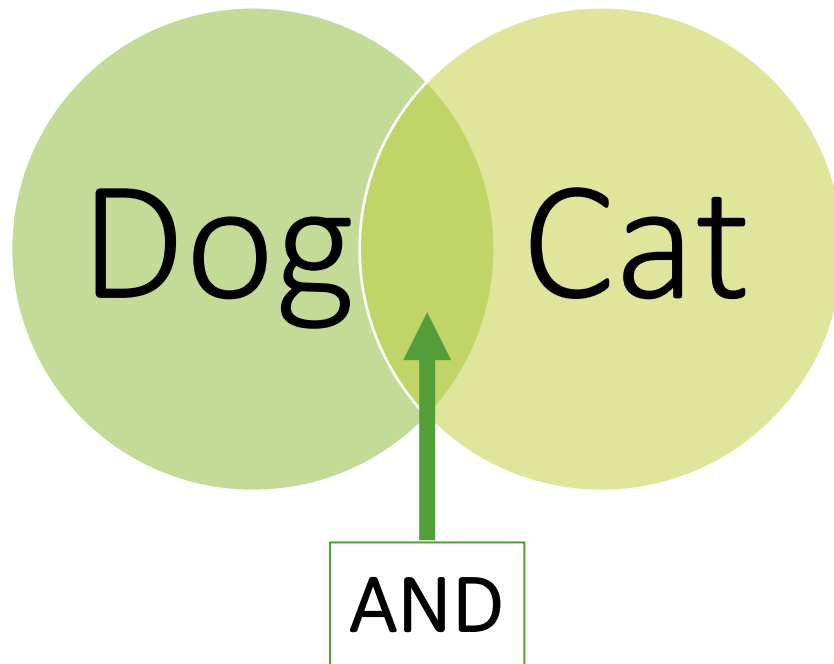
# In your groups

- Discuss your key concepts and their synonyms and whether they differ from what you generated from your mind maps.
- Get feedback about the terms you produced
- Identify a few more synonyms (if you can)

2 minutes per person

# Boolean Logic

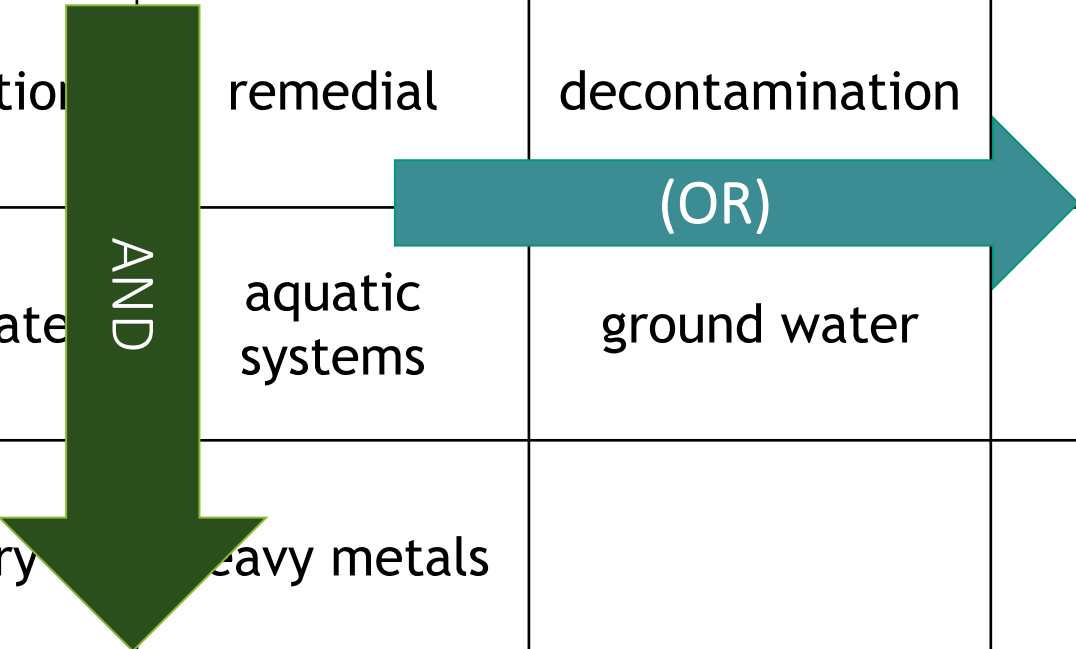
[https://youtu.be/kg8ZaA\\_rsJE](https://youtu.be/kg8ZaA_rsJE)



# Your keywords and synonyms

(OR) AND (OR)

Concepts	Related term	Related term	Related term
remediation	remedial	decontamination	
groundwater	aquatic systems	ground water	
mercury	heavy metals		



# Search String

(remediation OR remedial OR decontaminat\*)  
AND (groundwater OR "aquatic system\*" OR "ground water")  
AND (mercury OR "heavy metal\*")

→ notice the quotation marks = phrase searching

→ notice the asterisk = truncation (search for variable endings)

# Note: Asterisk

Truncation operator

Inclusi\*

Inclusive

Inclusivity

Inclusion

# Note: Quotation Marks

You searched:	Results can include:
Design team	"...thus selecting project <b>team</b> members according to the respective existing skills. This paper focuses on the coordination of <b>design</b> activities..."
"Design team"	Managers of project-based <b>design teams</b> in the construction industry



# Example Scopus Searches

## Search history

[Combine queries...](#)

5	( TITLE-ABS-KEY ( remediation ) AND TITLE-ABS-KEY ( groundwater ) AND TITLE-ABS-KEY ( mercury ))	122 document results
3	( TITLE-ABS-KEY (( remediation OR remedial OR decontamination )) AND TITLE-ABS-KEY (( groundwater OR "aquatic systems" OR "ground water" )) AND TITLE-ABS-KEY (( mercury OR "heavy metals" )))	1,015 document results
2	TITLE-ABS-KEY (( remediation OR remedial OR decontamination ) AND ( groundwater OR aquatic AND systems OR ground AND water ) AND ( mercury OR heavy AND metals ))	541 document results

# Databases

Database	Pros	Cons
<b>Monster Databases:</b> <a href="#">Google Scholar</a> Summon	<ul style="list-style-type: none"><li>- Never a shortage of results</li><li>- Searches multiple databases and websites at once</li></ul>	<ul style="list-style-type: none"><li>- Too many results!</li><li>- Limited functionality</li><li>- Abundance of non-scholarly and less-reliable results</li></ul>
<b>Multi-disciplinary Scholarly Databases:</b> Scopus Web of Science	<ul style="list-style-type: none"><li>- Never a shortage of results</li><li>- Sophisticated functionality (e.g., limiters, filters, sorting)</li><li>- Focus on scholarly outputs</li></ul>	<ul style="list-style-type: none"><li>- Some irrelevant results</li><li>- Get results for things we don't have access to</li></ul>
<b>Subject Specific Databases:</b> Compendex SciFinder PubMed [IEEE Xplore]	<ul style="list-style-type: none"><li>- Advanced search features, including controlled vocabulary</li><li>- Subject specific results, including chemical property information</li></ul>	<ul style="list-style-type: none"><li>- Learning curve</li><li>- Requires some domain knowledge</li></ul>

# Update your concept table

Concepts	Related term	Related term	Related term
remediation	remedial	decontamination	attenuation
groundwater	aquatic systems	ground water	
mercury	heavy metals		pollution

# Questions?

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<https://guides.library.utoronto.ca/chemeng>