

Cognition mapping — Science

Year 10 successful transition

This resource identifies the cognitive verbs that are evident in the Years 9–10 Australian Curriculum, and the dimensions and objectives of the QCAA General and Applied senior syllabuses.

Retrieval and comprehension

The activation and transfer of knowledge from permanent memory to working memory, and the storage of critical information in permanent memory

Processes

Recognising, recalling, executing, integrating, symbolising

Cognitive verb	Australian Curriculum Years 9–10		General senior syllabus objectives (including explanatory paragraphs)							Applied senior syllabus dimensions and objectives		
	Achievement standards	Content descriptions	Agricultural Science	Biology	Chemistry	Earth & Environmental Science	Marine Science	Physics	Psychology	Agricultural Practices	Aquatic Practices	Science in Practice
construct	✓										✓	✓
demonstrate										✓	✓	✓
describe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
explain	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
identify			✓	✓	✓	✓	✓	✓	✓			✓
implement		✓										
recall												✓
recognise			✓	✓	✓	✓	✓	✓	✓		✓	✓
select	✓	✓								✓	✓	
summarise												✓
use		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Analytical processes

Involves the reasoned extension of knowledge

Processes

Matching, classifying, analysing error, generalising, specifying

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	Achievement standards	Content descriptions	Agricultural Science	Biology	Chemistry	Earth & Environmental Science	Marine Science	Physics	Psychology	Agricultural Practices	Aquatic Practices	Science in Practice
analyse	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
apply	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
classify												✓
compare												✓
consider			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
critique											✓	
determine			✓	✓	✓	✓	✓	✓	✓	✓	✓	
differentiate											✓	
distinguish			✓	✓	✓	✓	✓	✓	✓			✓
identify errors/problems	✓											✓
interpret			✓	✓	✓	✓	✓	✓	✓		✓	✓
judge												✓
organise/sequence/structure											✓	
reflect			✓	✓	✓	✓	✓	✓	✓	✓	✓	

Knowledge utilisation

About using knowledge — involves the processes individuals use when they wish to accomplish a specific task

Processes

Decision-making, problem-solving, experimental inquiry, investigating

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argue		✓										✓
assess		✓										
decide/determine										✓		✓
design	✓									✓	✓	
develop	✓											
devise										✓	✓	
discuss/explore	✓											✓
evaluate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
experiment/test		✓										✓
generate/test											✓	
hypothesise/propose	✓	✓										
investigate/examine		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
justify/prove	✓									✓		
solve											✓	✓