

**Year 4/5 Rubric Concept Map Assessment**  
**Biological Science, Science Understanding, Australian Curriculum**  
**Teacher Version**

Performance Indicators	D	C	B	A
<b>Key Concepts:</b>	<ul style="list-style-type: none"> <li>Limited number of concepts selected relating to topic</li> <li>Arrangement of concepts illustrates limited understanding of conceptual relationships</li> </ul>	<ul style="list-style-type: none"> <li>Concept map demonstrates some of the key ideas content. Eg only one habitat or type of animal described</li> <li>Headings such as diet, habitat and features included but may also include irrelevant facts</li> <li>Arrangement of concepts demonstrates simple understanding of subordinate conceptual relationships</li> </ul>	<ul style="list-style-type: none"> <li>Most concepts relating to topic were selected</li> <li>Cause and effect relationships evident from selection of concepts</li> </ul>	<ul style="list-style-type: none"> <li>Arrangement of concepts demonstrates an understanding of structure and function</li> <li>Evidence that student has considered what could happen to survival of animal if key aspect changes or is missing</li> <li>Relationships include more abstract and multi faceted Eg links survival to reproduction rates, basics of evolution</li> </ul>
<b>Hierarchical Structure</b>	No sense of hierarchical structure	Concepts are displayed in a linear sequence with headings but no structure	Some structure used with appropriate headings for most groups	<ul style="list-style-type: none"> <li>Headings are appropriate and move from big ideas to specific points</li> <li>Clear hierarchy evident</li> </ul>
<b>Linkages</b>	<ul style="list-style-type: none"> <li>No relationships between concepts evident, more like a brainstorm of words</li> <li>irrelevant linking or comments words</li> </ul>	<ul style="list-style-type: none"> <li>Some basic relationships indicated by connected lines</li> <li>Linking words are simple and repetitive</li> </ul>	Relationships indicated with a connecting line and labelled with linking words	Linking words show variety and reflect an understanding of relationships between concepts
<b>Cross Links</b>	Cross links not evident or appear random	<ul style="list-style-type: none"> <li>Limited cross links are used</li> <li>Superficial connections</li> </ul>	Cross links used to reflect simple straightforward connections	Cross links demonstrate in depth understanding and interrelationships of ideas
<b>Depth of Coverage</b>	Limited content included	Superficial coverage of key ideas with little extension of ideas	Main ideas included and relationships described	Content shows depth of understanding, cause and effect relationships and application of additional concepts

## Student Version: Turtle Concept Map

Performance Indicators	Developing	Satisfactory	Good	Excellent
<p><b>Key understandings of science</b></p> <ul style="list-style-type: none"> <li>▪ Life cycles of turtles includes all stages from egg to adult</li> <li>▪ Relationships such as feeding, predation and competition described</li> <li>▪ Roles in ecosystem such as producer, consumer, decomposer in relation to turtles</li> <li>▪ Adaptations of turtles that help with their survival such as carapace</li> <li>▪ Factors that impact on survival of turtles</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Limited number of concepts selected relating to turtles</li> <li><input type="checkbox"/> Arrangement of concepts illustrates limited understanding of conceptual relationships</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Concept map demonstrates some of the key ideas content. Eg life cycles</li> <li><input type="checkbox"/> Headings such as diet, habitat, lifecycles and features included but no detail</li> <li><input type="checkbox"/> May include irrelevant facts not specifically linked to turtles</li> <li><input type="checkbox"/> Arrangement of concepts demonstrates simple understanding of how the ideas relate to each other. For eg feeding relationships and role as consumer</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Most concepts relating to turtles are covered (see section in grey)</li> <li><input type="checkbox"/> Cause and effect relationships evident from selection of concepts. For eg illustrates how turtle is part of an ecosystem</li> <li><input type="checkbox"/> Each major heading is unpacked further with more specific detail eg diet is described for turtles</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Arrangement of concepts demonstrates an understanding of structure and function For eg detail about how carapace reduces predation</li> <li><input type="checkbox"/> Evidence that student has considered what could happen to survival of turtle if key survival aspect such as habitat or diet changes or is missing</li> <li><input type="checkbox"/> Relationships include more abstract and multi faceted Eg links survival to reproduction rates, biodiversity, balance of nature in ecosystems</li> </ul>
<p><b>Structure of concept map</b></p> <p>Consider:</p> <ul style="list-style-type: none"> <li>▪ Hierarchy</li> <li>▪ Linkages</li> <li>▪ Cross links</li> <li>▪ Depth of coverage</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Words are all over page in no pattern</li> <li><input type="checkbox"/> Connecting lines but no words between ideas</li> <li><input type="checkbox"/> Random links</li> <li><input type="checkbox"/> Limited content included</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Words appear in a line, organised or sequenced but no headings</li> <li><input type="checkbox"/> Some links but words used are mostly the same and are repetitive</li> <li><input type="checkbox"/> Not many cross links between ideas shown</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Some structure used with appropriate headings for most groups</li> <li><input type="checkbox"/> Relationships indicated with a connecting line and labelled with linking words</li> <li><input type="checkbox"/> Main ideas included and relationships described</li> <li><input type="checkbox"/> Cross links used to reflect simple straightforward connections</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Headings are appropriate and move from big ideas to specific points</li> <li><input type="checkbox"/> Clear hierarchy evident</li> <li><input type="checkbox"/> Linking words show variety and reflect an understanding of relationships between concepts</li> <li><input type="checkbox"/> Content shows depth of understanding, cause and effect relationships and application of additional concepts</li> </ul>