



# SCIENCE 2 SUBJECT TERMS PROJECT

## Quality Assurance Detailed Report

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## Amendment History

| Date        | Version | Comment                   | Person                      |
|-------------|---------|---------------------------|-----------------------------|
| 19 May 2004 | 0.1     | Document created          | Steven Haby and MediaSphere |
| 24 May 2004 | 0.2     | Modifications to document | Steven Haby                 |

# 1 Introduction

## 1.1 Purpose of document

This document is a detailed report on the Science 2 Subject Terms Project (Science 2) which constitutes Version 4.0 of ScOT.

The first part of the document outlines the development of the subject terms by MediaSphere (a wholly owned business unit of John Paul College in Brisbane) that were contracted to undertake this project. The quality assurance process is discussed and this section concludes with a summary of the issues arising from this project.

The second part of the document (Appendix) is divided up into ten sections. The first nine sections correspond to blocks of learning objects (LO) from Science 2 that were reviewed as part of the process to develop subject terms for this build. The final section contains a list of resources consulted by MediaSphere during this project.

## 1.2 Acknowledgements

Curriculum Corporation acknowledges the work undertaken by the MediaSphere project team in the development of these subject terms.

# 2 Background to Science 2

MediaSphere was contracted by Curriculum Corporation to develop terms for the key learning area Science based on the content of the 40 learning objects of the Science 2 project. These objects were designed to specifically target The Learning Federation's science outcomes of the *Science – a Curriculum Profile for Australian Schools*. The Science 2 project had a nominated completion date of 23 April 2004.

## 2.1 MediaSphere project team

Key developers worked side by side in a collaborative, team environment. Key College personnel were contacted via email and a number of round table discussions were convened to elaborate on interpretations of some tangential curriculum links in the object descriptors supplied. Personal contacts were pursued in esoteric areas throughout the duration of the project.

|                 |   |
|-----------------|---|
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## 2.2 Reference tools used

Online curriculum materials from New Zealand and each state and territory were used as the core resources for the project. Each of these resources was cross referenced against the printed sources of *Science – a Curriculum Profile for Australian Schools*. The curriculum documents were supplemented by an extensive range of age specific print and digital core resources drawn from the John Paul College Library and curriculum collections.

In addition Curriculum Corporation supplied a pool of valuable background resources including previous quality assurance reports, New Zealand terms submitted for review, cross curricular reference guides, state comparison documents and a listing of preferred reference sites and resources.

A detailed list of resources consulted is included in Appendix 7.11

## 3 Methodology

### 3.1 Stage 1: Preparation of Resource Base

Project preparation was made through consultation with Steven Haby from Curriculum Corporation for guidance on a relevant resource pool to source the project. The following resources were assembled:

- Science – a Curriculum Profile for Australian Schools and Science in the New Zealand Curriculum
- State Curriculum Overviews, Guidelines, Work Samples and Modules
- Sample text resources to support curriculum from P – 10 from major publishers Longman, Heinemann and Jacaranda
- On-line thesaurus samples, databases and dictionaries
- On-line Science sites to support curriculum
- Commercially produced digital content
- Selected resource pools on thematic topics from a range of age groups selected from the John Paul College Library and curriculum collections
- John Paul College unit plans and overviews and College created teacher support material and guidelines

In addition, relevant John Paul College staff teams were notified of the parameters of the project to supply curriculum interpretation (key personnel included the Directors of Teaching and Learning, Curriculum Team Leaders, John Paul College Metadata Team and Classroom Science Teachers from the Infant, Primary and Middle Schools).

Each object (or group of objects) was resourced by an extensive print collection selected by the Library teams from the Infant School, Primary School and Middle Schools. Relevant general print resources were also collated from the senior science strands (Physics, Biology and Chemistry).

The John Paul College Content Thesaurus Editorial Team contacted school liaison officers at both the Queensland Museum and the Science Centre to ensure continued lines of communication for specific questions.

In addition, personal contacts were utilized for esoteric knowledge for specific insights to support particular objects e.g. a pilot, a retinal surgeon, a meteorologist and a horticulturalist.

### 3.2 Stage 2: Review of Curriculum Documents

The document review was extensive and was based on the recommendations supplied by Curriculum Corporation. Topics across states and territories were noted as similar although the level of discussion of particular topics varied considerably as did the identified stage of introduction of topics.

The core outcomes from each document were collated and cross referenced in the early stages of the project. As the project progressed, the core outcomes were teased out through a consideration of the specifics covered in the sample modules and learning experiences scoped by each state and territory. The key words and concepts and the terminology developed by the curriculum planners proved to be the key in providing thesaurus terms which would meet the needs of the anticipated diverse audience of users.

### 3.3 Stage 3: Scoping of Terms

The Content Thesaurus Editorial Team scoped the terms for the thesaurus using a series of concept maps. These maps clearly showed the intended inter relationships between concepts and provided a virtual “roadmap” for maintaining the logic of the hierarchy as it was developed.

In many cases, the challenge was not to merely “add” the term, but rather to weave the new concept into an already existing structure.

The concept map featured all of the concepts, keywords and specific terminology that encapsulated the “intention” of the specific content of the object and in many examples also included the broader terms relating to the “context” of the object. This undoubtedly has resulted in terms being added outside the immediate anticipated content of the objects.

In setting up the batches for scoping, “families” of objects were nominated. For example, one team member looked at all the objects relating to “prehistoric creatures” and “animals”. This ensured that the team member could transfer concepts across objects and maintain consistency within the concept map.

Terms were then cross referenced with existing terms and structures in *ScOT*, *SCIS* and the *Library of Congress Authority Files*. Of course, many anomalies were noted but these sources formed the foundation of the discussions. In fact, the team developed a simple collation sheet which identified both the keyword or term being considered and a summary of its reference structure in each *ScOT*, *SCIS* and the *Library of Congress Authority Files*.

The relevance of terms and their interrelationships were consolidated by a combination of consultation with key personnel on campus and referencing with identified resource pools from the P – 10 collections.

The identified terms were added and cross referenced and then submitted in batches for comments and feedback.

### 3.4 Stage 4: Response to Quality Assurance Assessment

MediaSphere submitted a series of batches of terms to Steven Haby at Curriculum Corporation based on the topics of the Learning Objects.

Specific submissions included:

- Batch 1 bacteria, outbreak and gears – 10 objects
- Batch 2 jaws and weather – 4 objects
- Batch 3 oceans and tectonics – 5 objects

- Batch 4 flight – 2 objects
- Batch 5 eyes and shoes – 9 objects
- Batch 6 animals – 6 objects
- Batch 7 perfect match - 1 object
- Batch 8: hydroponics and fair test – 3 objects
- Batch 9: outstanding Quality Assurance Report discussions
- Batch 10: an error report generated from merging terms

The terms were submitted as Notepad files extracted from MultiTes using the Alphabetical and Hierarchical reporting features.

The Batch 1 Quality Assurance report highlighted the problems experienced by the MediaSphere team which was attempting to construct a hierarchical thesaurus structure without the benefit of relevant software.

After receiving Batch 1, Curriculum Corporation imported the terms supplied by MediaSphere, produced a detailed Quality Assurance report and provided download links to a free trial version of MultiTes. All future data entry was completed using this valuable tool and discrepancies in future batches were minimized because of access to MultiTes.

As each batch was submitted, particular queries were raised by Curriculum Corporation in response to the suggested terms. The queries raised in the Quality Assurance reports were addressed by MediaSphere and discussions and queries were exchanged until an agreement on the designated term, relationships or hierarchy was established and accepted by Curriculum Corporation.

### 3.5 Deliverables

Initially the Science 2 project delivered 676 new or revised subject terms but following modifications as a result of the integration of Science 2 subject terms into ScOT this number was reduced to 671.

In all 404 **new** subject terms were introduced into ScOT. Of these 353 are preferred subject terms and 51 are non-preferred.

Version 4.0 when released will comprise the following:

|                               |        |
|-------------------------------|--------|
| Total number of subject terms | 8, 218 |
| Preferred subject terms       | 6, 642 |
| Non-preferred subject terms   | 1, 576 |
| Top terms                     | 241    |

## 4 Observations from MediaSphere

### 4.1 Breadth of the Project

The addition of terms was limited to topics directly addressed by the scope of the object descriptors supplied. General areas of “science” are certainly addressed in the current content of ScOT which can be described as covering the subject area in “broad strokes”. The specific esoteric detail noted in curriculum documents in “core outcome” statements however needed to be added in line with the topics addressed by the objects.

In some cases, the intent of the object was certainly more detailed than the passing reference noted in discretionary outcomes in curriculum documents. In these cases, for example in the

objects “Outbreak” or “Hang Gliders”, terms were added that had more relevance to the Senior Biology or Physics Syllabus documents than the mainstream P- 10 Curriculum.

## 4.2 Planning for Using the Thesaurus in School Contexts

The approach taken by the Content Thesaurus Editorial Team was to include terms which could be added by school metadata teams to ensure that generalist teachers in the Primary and Middle Schools (who may not necessarily have specialized esoteric scientific knowledge) could easily locate resources in their digital repositories. It was therefore necessary to ensure that the terms were both “scientific” in their origins but meaningful and pedestrian in their application by a broad range of users.

## 4.3 Small loads

Although not the original intent, the submission of terms in small batches was perceived as an advantage by the Content Thesaurus Editorial Team.

The workload for review was manageable and enabled our staff to specialize in research and referencing. It also meant that the team could have a number of topics running concurrently which facilitated contact with specialist consultants for clarification of object content or relevance.

The continuity of the project was ensured by the quick turnaround from Steven Haby at Curriculum Corporation. The MediaSphere team could respond to the comments and queries raised by Curriculum Corporation and supply justifications for inclusions or changes. All research sources were kept on hand until the final acceptance of the batch was made by Curriculum Corporation.

## 4.4 Access to Learning Objects

The Content Thesaurus Editorial Team to date has not seen any completed objects nor any storyboards for objects. Curriculum Corporation supplied, in lieu of the objects, a two or three sentence descriptor on each of the objects with an associated listing of suggested keywords and subject terms taken from the current version of *ScOT*.

This was particularly frustrating in the early stages of the project and MediaSphere submitted a number of requests for access to the storyboards.

There is no doubt that the specificity of the terms developed would have been enhanced by access to the storyboards. The “intent” of the creators of the objects would then have been specifically stated.

It is suggested that the terms added have in fact gone beyond the limits of the object and addressed the key outcome statements for each of the general topics addressed by the objects.

The team at MediaSphere were contracted to complete the task within a nominated timeframe and commitment to additional projects and responsibilities meant that the project team had little or no flexibility in terms of moving dates. As it became obvious that objects and storyboards were not forthcoming and as a result of further consultation with Curriculum Corporation it was decided that the subject term build would be based solely on the written summary descriptions provided.

For future reference, it is suggested that access to the storyboards (in preference to the objects) is a priority resource requirement. The objects would probably be a timewaster in the process as demonstrated by the sample object “Outbreak”. An inordinate amount of time would be spent in trying to navigate the complexities of the object to source the essential information. The storyboards would provide this information immediately.



## 4.5 Communication

The team at MediaSphere could not have kept the project rolling in a timely fashion without the immediate support and assistance provided by Steven Haby. This support was offered by email and telephone.

Email was utilized extensively to clarify small issues and the timely response to these emails ensured that the project was not stalled. The Quality Assurance Reports contained a “cumulative” summary of the discussion and have provided an on-going reference source for future queries on the term build.

Steven Haby was more than willing to establish conference calls with the MediaSphere team at crucial stages in the project to clarify, for all team members, specific issues. This was particularly useful in understanding the use of MultiTees, the exploration of the first Quality Assurance Report and a final discussion of terms logged as errors for the merging of terms.

The communication process would have been enhanced by a final round table, face-to-face discussion of the terms submitted. This would have brought the project to a timely conclusion without the protracted email discussions that eventually brought the project to its final stage in Quality Assurance Report 10.

## 4.6 Advantages of a school-based team

It is suggested that some advantages accrued to the project because the Content Thesaurus Editorial Team was able to access the expertise of a school based team. This was particularly useful in sourcing a curriculum slant for objects that did not directly relate to core KLA outcomes.

In our school setting all teachers from Years 1 to Year 9 are engaged in developing and delivering an integrated curriculum program. When issues in the KLA Science were raised, the association and interpretation in other KLAs was naturally explored. In the Science 2 learning objects, there were many cross-curricular links between Science, Health and Physical Education and Study of Society and Environment. These nuances are reflected in the term build submitted.

## 4.7 New Zealand References

The terms developed were not influenced by any cultural terms from the New Zealand curriculum documents. The content of the objects appeared to be “universal” in application. The specific examples noted in the objects dealing with animals for example were drawn from Australia rather than New Zealand e.g. blue tongued lizard or dingo. A review of the terms, especially those dealing with the prehistoric animals and plate tectonics may be necessary when the objects become available.

## 4.8 Interrelationships between KLAs

It is suggested that as part of the ongoing review of the ScOT terms that cross curriculum links are checked. There is no doubt that some issues in Science have implications for the SOSE syllabus for example. A simple concept of “hydroponics” and plant growth impacts on the issue of sustainable futures or the topics associated with courtship and reproduction have cultural implications. Many of these links have not been made in the development of Science specific terms.

## 4.9 MultiTees

This product is available as a free software download trial for 30 days. It is not possible to load a second copy onto a machine where the 30 day limit has been reached.

The software was readily accessed, was simple to use and was a welcome addition to the resource pool for this project. Data was easy to enter and edit in the product and changes

were saved automatically as the project progressed. Reports were generated instantly and could be exported and imported as required.

The batching concept was also supported by MultiTees. Each team member could work independently on a selection of the objects and develop terms in a specialist area. Once terms were approved within the small batch, each batch could be imported and combined to create a progressive term load. Again, working in this staged process ensured consistency in terms and hierarchy and “errors” could be addressed immediately.

The addition of a spelling check function in MultiTees would be an advantage to help eradicate some of the simple data entry errors.

## 5 Process Insights

The following suggestions are made as a result of the experiences of MediaSphere team:

1. maintain focus on the specifics of curriculum outcomes expressed in language indicative of the terminology of the documents
2. work in topic specific batches
3. where possible work at the module level for the States to get the specifics of keywords and terminology
4. develop concept maps to show inter relationships between key terms from the curriculum
5. reference the terms against existing structure in ScOT and check the basic relationships against the concept map
6. consult a range of “age appropriate” teaching and learning resources to gain an understanding of how different teachers may approach the same concept as it became obvious that different age groups required differing levels of specificity of terminology
7. choose key thesauri as central reference points
8. seek regular feedback from Curriculum Corporation to ensure that the integrity of the added terms is maintained
9. use the Quality Assurance Reports generated by Curriculum Corporation as the on-going record of discussions and for reaching a consensus on terms added
10. document all sources of information for what may be contentious interpretations of terminology links

## 6 Issues identified by Curriculum Corporation

### 6.1 Access to MultiTees

In the initial phase of the Science 2 Project, MediaSphere did not have access to MultiTees and provided subject terms for review using MS Word. Many errors in particular relationship errors were identified by Curriculum Corporation and noted in Quality Assurance Report 1 (see Appendix 7.1).

The reason for not using MultiTees was based on a desire to reduce the cost of the quote to Curriculum Corporation.

Following discussions with MediaSphere it was agreed that a trial version of MultiTees software be obtained and used during the life of the Science 2 Project. Following this decision the quality of the subject terms supplied to Curriculum Corporation for review dramatically improved particularly in relation to the hierarchical relationships.

## 6.2 Access to learning objects

Following requests by MediaSphere and in part due to uncertainty of the specific content areas in Science that would be involved in the TLF Science 2 Project, a concerted effort was made by Curriculum Corporation to obtain more detailed information about the learning objects that would be developed or at least proposed.

TLF were able to supply a number of storyboards and other documents that provided much needed and valuable background information about the learning objects under development.

A result of this was development by MediaSphere of a set of subject terms that are considered to be more focussed and relevant to the needs of the TLF. There were issues arising in relation to the depth and breadth of some of the subject terms in relation to their immediate relevance to the learning objects for Science 2.

Further subject builds and reviews should ideally be undertaken with as much information as possible about the learning objects, or access to draft or completed learning objects available, to ensure that the process is undertaken as effectively as possible.

## 6.3 Smaller blocks of subject terms

As part of the contract negotiations between Curriculum Corporation and MediaSphere and following Curriculum Corporation's supply of background information about the content areas and potential and actual learning objects it was agreed that subject terms would be supplied in small groups. This would ensure that more immediate and timely quality assurance could be undertaken and that the resources of both organisations would not be overtaxed.

Curriculum Corporation has been able to provide more timely and focussed quality assurance as a result of this decision and errors and potential issues being identified and dealt with more effectively throughout the build process. It is recommended that this method be continued for future builds.

## 6.4 Communication

The communication channels established between Curriculum Corporation and MediaSphere have been effective in providing feedback on a range of issues and subject term development. A number of teleconferences were held particularly at the beginning and towards the end of this Project. Most communication has been via email and using the report template to record progress on quality assurance.

## 6.5 Integration of subject terms

As a building block approach had been adopted by MediaSphere it was necessary to merge all working files into one file ready to be merged into Version 3.4 of ScOT.

A teleconference was held between Steven Haby and MediaSphere to review the process and an action arising was a set of instructions prepared and sent to MediaSphere.

All files were merged into one file successfully and a further teleconference was held on 4 May 2004 to discuss the integration into Version 3.4. After consideration of the issues - the time available and the number of subject terms (676) it was agreed that the Merge feature of the MultiTes software should be used rather than manual input.

The integration took place on 7 May 2004 and an error report listing 20 subject terms was generated. All errors were reviewed and changes agreed to. Most errors related to relationship conflicts.

The success in merging of a smaller file into the master ScOT file, on the pretext that subject terms are built following generally the hierarchical structures in the master file if appropriate, should be continued. Integration of one file into the current version of ScOT is recommended as a worthwhile practice in the future.



## 7 Appendix

### 7.1 Quality assurance of subject terms relating to LO “Outbreak” and “Gears”

| No. | Subject term with hierarchical display   | CC comments  | JPC comment   | Outcome  |
|-----|--|--|---|--|
| 1.  | Animals as carriers of disease<br>BT1: Disease vectors<br>BT2: Diseases<br>BT3: Medicine<br>NT1: Primates as carriers of disease   | See comments under Disease vectors<br><br><b>CC response</b><br>Agree with revised structure. Agree with suggested BT.<br><br><b>CC comment</b><br>It is recommended, following further consideration, that further review be conducted on the hierarchical structure and format of these subject terms. | The structure for this has been changed<br>Animals as carriers of disease<br>..Insects as carr<br>..Primates as carr<br>..Rodents as carr<br>What will be the BT? SCIS suggests “Communicable disease”  | Animals as carriers of disease<br>BT Communicable diseases<br>NT Insects as carriers of disease<br>Primates as carriers of disease |
| 2.  | Antibiotics<br>BT1: Chemotherapy<br>BT2: Drugs<br>BT3: Medicine<br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>BT2: Medicine<br>BT2: Epidemiology<br>BT3: Diseases<br>BT4: Medicine<br>BT3: Public health<br>BT4: Health<br>BT5: Medicine<br>BT1: Drugs<br>BT2: Medicine | Query BT Chemotherapy. Are antibiotics used in chemotherapy?<br>BT Drugs has NT Chemotherapy<br><br><b>CC response</b><br>Agree with recommendations.  | Chemotherapy and its related structure was taken from the SCIS guidelines. There is no reference to chemotherapy in the object. Research indicated that common usage associated chemotherapy with treatment of cancer. Definition suggests<br>1. The treatment of cancer using specific chemical agents or drugs that are selectively destructive to malignant cells and tissues.<br>2. The treatment of disease using chemical agents or drugs that are selectively toxic to the causative agent of the disease, such as a virus, bacterium, or other microorganism.<br><b>Action:</b> reference removed from list under Antibiotics | Antibiotics<br>BT Communicable diseases<br>Drugs<br>RT Diseases<br>Immunity<br>Bacterial infection<br>Typhoid                      |

|    |   |  |  |   |
|----|---|--|--|---|
|    | RT: Diseases<br>RT: Immunity<br>RT: Bacterial infection<br>RT: Typhoid  |  | <b>Action:</b> reference removed from list under Drugs   |   |
| 3. | Axles<br>BT1: Wheels<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT2: Vehicles   | BT Wheels is a NT under Vehicles and Bicycles.   |  | Axles<br>BT      Wheels   |
| 4. | Bacillus<br>BT1: Bacteria<br>BT2: Biology<br>BT2: Microbiology<br>BT3: Biology  | BT Biology under BT Bacteria is a NT to Microbiology.<br><br><b>CC response</b><br>Agree with revised reference structure.             | The hierarchy should show the following relationship<br>Biology<br>.Microbiology<br>..Bacteriology<br>...Bacteria<br><b>Action:</b> relationships to biology changed to show only one NT of microbiology – that is – as already y indicated in ScOT<br><br><b>Action:</b> relationship established between microbiology, bacteriology and bacteria established | Bacillus<br>BT      Bacteria  |
| 5. | Bacteria<br>UF: Bacterion<br>UF: Bacterium<br>BT1: Biology<br>BT1: Microbiology<br>BT2: Biology<br>NT1: Bacillus<br>NT1: Bacteriology<br>NT2: Immunity<br>NT1: Coccus<br>NT1: Diplococcus<br>NT1: Salmonella tyhimuium<br>NT1: Sulfolobus acidocaldarius<br>NT1: Spirulina oscillatoria | Micro-organisms should be changed to Micro organisms.<br><br><b>CC response</b><br>Agree with revised reference structure and changes. | <b>Action:</b> term modified to Micro organisms.<br>USE references added from micro-organisms and microorganisms<br><br><b>Action:</b> all specific examples of bacterial infections were removed e.g Typhoid, Plague, Cholera etc.<br>Specific names of bacteria were retained.   | Bacteria<br>UF: Bacterion<br>Bacterium<br>NT: Bacillus<br>Coccus<br>Diplococcus<br>Salmonella tyhimuium<br>Sulfolobus acidocaldarius<br>Spirulina oscillatoria<br>Streptococcus mutans<br>Salmonella typhi<br>RT: Bacterial infection<br>Bacteriology<br>Diseases |

|    |   |  |  |  |
|----|---|--|--|--|
|    | <p>NT1: Streptococcus mutans<br/> NT1: Cholera<br/> NT1: Plague<br/> NT1: Salmonella typhi<br/> NT1: Typhoid<br/> NT2: Salmonella typhi<br/> RT: Bacteriologists<br/> RT: Diseases<br/> RT: Flagellum<br/> RT: Microbiologists<br/> RT: Micro-organisms<br/> RT: Microscopes<br/> RT: Microscopy<br/> RT: Pili<br/> RT: Viruses (Biology)<br/> RT: Bacterial infection<br/> RT: Pathogens<br/> RT: Public health</p>  |  |  | <p>Flagellum<br/> Micro organisms<br/> Microbiologists<br/> Microscopes<br/> Microscopy<br/> Pathogens<br/> Pili<br/> Public health<br/> Viruses (Biology)</p>                                     |
| 6. | <p>Bacterial infection<br/> UF: Bacterial diseases<br/> BT1: Communicable diseases<br/> BT2: Diseases<br/> BT3: Medicine<br/> BT2: Public health<br/> BT3: Health<br/> BT4: Medicine<br/> BT2: Medicine<br/> BT2: Epidemiology<br/> BT3: Diseases<br/> BT4: Medicine<br/> BT3: Public health<br/> BT4: Health<br/> BT5: Medicine<br/> BT1: Diseases<br/> BT2: Medicine<br/> BT1: Medicine<br/> BT1: Public health<br/> BT2: Health<br/> BT3: Medicine<br/> NT1: Cholera</p> | <p>BT Medicine has Diseases as a NT which also appears as a BT under Bacterial infection.</p> <p><b>CC response</b><br/> Agree with revised reference structure.</p> | <p><b>Action:</b> removed BT Medicine from Bacterial infection</p> | <p>Bacterial infection<br/> UF: Bacterial diseases<br/> BT: Communicable diseases<br/> NT: Cholera<br/> Plague<br/> Typhoid<br/> RT: Antibiotics<br/> Bacteria<br/> Vaccination<br/> Epidemics</p> |

|    |  |   |   |   |
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|    | NT1: Plague<br>NT1: Typhoid<br>NT2: Salmonella typhi<br>RT: Antibiotics<br>RT: Bacteria<br>RT: Vaccination<br>RT: Epidemics  |   |   |   |
| 7. | Bacteriologists<br>BT1: Scientists<br>RT: Bacteria<br>RT: Bacteriology   | Link to BT Occupations (existing ScOT subject term) rather than BT Scientists. Is a bacteriologist a type of scientist? The reference structure for Occupations may need to be restructured as CC took a simplified approach to the reference structure. CC is happy to receive advice from MediaSphere on this structure.<br><br><b>CC response</b><br>Agree with JPC recommendation for the treatment of subject term Scientist. CC will need to review all relevant subject terms in ScOT that relate to scientists but also happy to receive advice from JPC. | bacteriologist ( <i>noun</i> ) -<br>1. a biologist who studies bacteria<br><br>The Macquarie defines "bacteriology" as "the science that deals with bacteria".....so would suggest that YES is a type of scientist<br><br>Would suggest that Occupations remain as the BT for scientists but BT scientist have NT of each type of scientist | Bacteriologists<br>BT: Occupations<br>RT: Bacteriology  |
| 8. | Bacteriology<br>BT1: Bacteria<br>BT2: Biology<br>BT2: Microbiology<br>BT3: Biology<br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>BT2: Medicine<br>BT2: Epidemiology<br>BT3: Diseases<br>BT4: Medicine | Error report generated from MultiTes indicated that Bacteria was a NT under Bacteriology and that Bacteriologists was also a NT under Bacteriology in the supplied list.<br><b>CC response</b><br>Agree with revised reference structure. RT is Bacteriologists. Could not find Microbiologists. The RT follows the model adopted for all occupation subject terms.   | Bacteria is a NT under Bacteriology<br><b>Action:</b> Removed NT Bacteriologist from BT Bacteria<br><br><b>Action:</b> Removed the RT Bacteriology from Bacteriologists<br><br><b>Action:</b> Added BT Bacteriology to Bacteriologists<br><br><b>Query</b> – why is there a RT link to Microbiologists                                      | Bacteriology<br>BT: Microbiology<br>NT: Immunity<br>RT: Bacteria<br>Bacteriologists<br>Communicable diseases<br>Micro organisms |



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|    | BT3: Public health<br>BT4: Health<br>BT5: Medicine<br>BT1: Medicine<br>BT1: Microbiology<br>BT2: Biology<br>BT1: Parasites<br>BT2: Biology<br>BT2: Communicable diseases<br>BT3: Diseases<br>BT4: Medicine   |   |  |  |
| 9. | Bicycles<br>UF: Bikes<br>BT1: Transport<br>BT1: Vehicles<br>NT1: Brakes<br>NT2: Disk brakes<br>NT2: Hub brakes<br>NT2: Rim brakes<br>NT1: Cogs<br>NT1: Gearing<br>NT1: Tyres<br>NT1: Wheels<br>NT2: Axles<br>NT2: Cogs<br>NT2: Gearing<br>NT2: Tyres | NTs Cogs, Gearing and Tyres appear as NT under Wheels.<br>I think the NTs listed are incorrect. The same NTs could be placed under all types of vehicles. Would suggest any NTs be different types of bikes.<br>Query BT Transport as ScOT has Transport > NT Land transport > NT Vehicles and NT Road vehicles. Road vehicles has NT Bicycles. CC will revise the reference structure for Transport.<br>Bicycles in ScOT has RT Cycling and RT Cyclists.<br>Helmets would be a useful addition to ScOT but RT not NT under Bicycles.<br>Link to Safety equipment and/or Headware with RT to Head.<br><br><b>CC response</b><br>CC is happy not to include subject terms for headwear at this stage as this can be addressed at a later stage.<br>Recommend that qualifier for Bearings is Machinery.<br>Agree with the premise suggested by JPC on the concepts relating to machines.<br>Agree with all other changes to | Agree SH – the rationalisation here needs to change to BT Machinery for cogs, gears (not gearing) etc and RT back to Bicycles....or any type of vehicle as relevant. In the case of the objects – all experiments are using Bicycles – trying to create a logical link to the machinery parts (brakes, gears, wheels) to the actual “machine” – bicycles.<br><br>BT Machinery<br>NT Brakes<br>NT Gears<br>NT Wheels<br>...NT2 Tyres, Cogs,<br>NT Bearings (Machinery)<br>RT Bicycles<br><br>How do you address the qualifier for “Bearings” – suggestions please.<br>This is all based on the premise that in all curriculum documents the concepts related to “simple machines” are taught through references to common household machines e.g. bicycles, windscreen wipers etc. Hence the link back to machines. | Bicycles<br>UF Bikes<br>BT Road vehicles<br>RT Cycling<br>Cyclists<br>Machinery<br>Road safety<br>Safety equipment |

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|     |  | reference structure.  | <p>For future reference, this directly relates to the Technology KLA and exploration of “simple machines”. Interesting to note that SCIS actually includes a reference to “simple machines” USE “machinery”</p> <p><b>Action:</b> BT Machinery established with associated links as above. Reference to “type of bike” not relevant in this set of objects and again not sure of relevance in terms of science outcomes?<br/>Headwear? Certainly this concept would be relevant for the Health and PE load - not really an “outcome” initiative in science.</p> |  |
| 10. | <p>Biology</p> <p>NT1: Bacteria</p> <p>NT2: Bacillus</p> <p>NT2: Bacteriology</p> <p>NT3: Immunity</p> <p>NT2: Coccus</p> <p>NT2: Diplococcus</p> <p>NT2: Salmonella tyhimuium</p> <p>NT2: Sulfolobus acidocaldarius</p> <p>NT2: Spirulina oscillatoria</p> <p>NT2: Streptococcus mutans</p> <p>NT2: Cholera</p> <p>NT2: Plague</p> <p>NT2: Salmonella typhi</p> <p>NT2: Typhoid</p> <p>NT3: Salmonella typhi</p> <p>NT1: Microbiology</p> <p>Etc...</p> | <p>NT Bacteria and Viruses (Biology) appear as a NT under Microbiology. Biology in ScOT has a BT to Science.</p> <p><b>CC response</b></p> <p>Agree with changes to reference structures.</p> | <p>SH to add BT Science to Biology</p> <p><b>Action:</b> Remove NT Bacteria from Microbiology (reflects new hierarchy)</p> <p><b>Action:</b> Removed NT Coronavirus and NT Viruses (Biology) from Microbiology</p> <p><b>Action:</b> Added RT Viruses (Biology) to Microbiology</p>   | <p>Biology</p> <p>UF: Life sciences</p> <p>BT: Science</p> <p>NT: Adaptation (Biology)</p> <p>NT: Anatomy</p> <p>NT: Animals</p> <p>NT: Biochemistry</p> <p>NT: Biodiversity</p> <p>NT: Biological rhythms</p> <p>NT: Biologists</p> <p>NT: Biomechanics</p> <p>NT: Ecology</p> <p>NT: Embryology</p> <p>NT: Evolution</p> <p>NT: Fungi</p> <p>NT: Genetics</p> <p>NT: Larvae</p> <p>NT: Life cycles</p> <p>NT: Microbiology</p> <p>NT: Palaeontology</p> <p>NT: Parasites</p> <p>NT: Photobiology</p> <p>NT: Physiology</p> <p>NT: Plants</p> |

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|     |  |  |  | NT: Protists<br>NT: Reproduction<br>NT: Hermaphroditism<br>RT: Biotechnology<br>RT: Botany<br>RT: Zoology |
| 11. | Cancer<br>BT1: Diseases<br>BT2: Medicine   | Would there be warrant to revise reference structure for Cancer to include: Cancer > BT Tumours > BT Pathology? Suggest an RT to Chemotherapy.<br><br><b>CC response</b><br>No further action. RT to Carcinogens in ScOT integration | SH to call – not in scope of Objects or science curriculum P - 10                      | Cancer<br>BT: Diseases<br>RT: Carcinogens   |
| 12. | Chemotherapy<br>BT1: Drugs<br>BT2: Medicine<br>NT1: Antibiotics  | Is Chemotherapy a type of Drug or is it a treatment. I also query the NT Antibiotics. LCSH has Drugs as a RT. Suggest an RT to Cancer.<br><br><b>CC response</b><br>Agree with JPC comment. No further action.                       | See earlier comments and definitions. This link has been removed as discussed earlier. | Removed   |
| 13. | Cogs<br>BT1: Bicycles<br>BT2: Transport<br>BT2: Vehicles<br>BT1: Wheels<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT2: Vehicles | See comment under Bicycles regarding BT Bicycles.<br>Suggest Gears be added as a RT.<br><br><b>CC response</b><br>Agree with revised reference structure.  | <b>Action:</b> Added related RT Gears  | Cogs<br>BT: Wheels<br>RT: Gears   |
| 14. | Cold (Disease)<br>RT: Influenza  | A BT should be added here. It could be Diseases.<br>Is there a suitable UF?<br><br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> Added BT diseases   | Colds (Disease)<br>BT: Viral infection<br>RT: Influenza   |

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| 15. | <p>Communicable diseases<br/> UF: Infectious diseases<br/> BT1: Diseases<br/> BT2: Medicine<br/> BT1: Public health<br/> BT2: Health<br/> BT3: Medicine<br/> BT1: Medicine<br/> BT1: Epidemiology<br/> BT2: Diseases<br/> BT3: Medicine<br/> BT2: Public health<br/> BT3: Health<br/> BT4: Medicine<br/> NT1: Antibiotics<br/> NT1: Bacterial infection<br/> NT2: Cholera<br/> NT2: Plague<br/> NT2: Typhoid<br/> NT3: Salmonella typhi<br/> NT1: Bacteriology<br/> NT2: Immunity<br/> NT1: Cholera<br/> NT1: Dengue fever<br/> NT2: Flaviviridae<br/> NT1: Ebola fever<br/> NT1: Epidemics<br/> NT1: Influenza<br/> NT1: Malaria<br/> NT2: Plasmodium falciparum<br/> NT1: Pandemic<br/> NT2: Epidemics<br/> NT1: Parasites<br/> NT2: Bacteriology<br/> NT3: Immunity<br/> NT2: Malaria<br/> NT3: Plasmodium falciparum<br/> NT2: Endoparasites<br/> NT2: Ectoparasites</p> | <p>This should be plural. CC amended.<br/> BT Medicine is also a BT to Diseases. This will need to be corrected.<br/> NT Bacteriology and Malaria appear as a NT under Parasites.<br/> NT Cholera, Plague and Typhoid appear as a NT under Bacterial infection.<br/> NT Smallpox appears as a NT under Viral infection.</p> <p><b>CC response</b><br/> Agree with JPC comments.<br/> Agree with revised reference structure.</p> | <p>Bacteriology will be a related term for terms bacteria etc<br/> All specific examples of diseases will appear under the appropriate viral, bacterial, parasitic infections area</p> <p><b>Action:</b> remove BT Medicine and leave BT Diseases</p> <p><b>Action:</b> removed NT Bacteriology and added as RT Bacteriology</p> <p><b>Action:</b> changed preferred term to "Pandemics" - removed BT Diseases</p> <p><b>Action:</b> removed BT Bacteriology from Parasites</p> <p><b>Action:</b> removed BT Diseases from Parasites</p> <p><b>Action:</b> removed NT Plasmodium falciparum from Parasites and added as NT under Malaria</p> <p><b>Action:</b> Removed BT Diseases from Malaria</p> <p><b>Action:</b> Added BT Communicable diseases to Parasitic infections</p> <p><b>Action:</b> need to define the context of the term Parasites – this will refer specifically to Animal parasites – all discussions for plants needs to be included un Parastic plants. A new layer for Parasitic infection needs to be incorporated here and include reference to specific diseases caused by</p> | <p>Communicable diseases<br/> UF: Infectious diseases<br/> BT: Diseases<br/> Public health<br/> NT: Antibiotics<br/> Bacterial infection<br/> Epidemics<br/> Parasites<br/> Parasitic infection<br/> Vaccination<br/> Viral infection<br/> RT: Animals as carriers of disease<br/> Bacteriology<br/> Immunity<br/> Quarantine</p> |
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|     | NT2: Plasmodium falciparum<br>NT1: Plague<br>NT1: SARS (diseases)<br>NT2: Coronavirus<br>NT1: Smallpox<br>NT1: Typhoid<br>NT2: Salmonella typhi<br>NT1: Vaccination<br>NT1: Viral infection<br>NT2: Smallpox<br>RT: Immunity<br>RT: Quarantine |  | parasites e.g. Malaria.<br><br><b>Action:</b> added specific infection names under type of infection  |                               |
| 16. | Disease vectors<br>BT1: Diseases<br>BT2: Medicine<br>NT1: Animals as carriers of disease<br>NT2: Primates as carriers of disease<br>NT1: Primates as carriers of disease<br>NT1: Insects as carriers of disease                                | Is there an alternative phrase or wording to Disease vectors?<br>NT Primates as carriers of disease appears as a NT under Animals as carriers of disease.<br>The three NT are all compound headings however happy to retain based on warrant in the curricula.<br>Alternative is to establish Carriers of disease or Disease carriers with SN to use with names of specific animal, insect, etc?<br><br><b>CC response</b><br>Agree with JPC comments on proposed reference structure.<br>In reference to subject term 1 (Animals as carriers of disease) it was suggested that the BT could be Communicable diseases however here it is suggested that Animals as carriers... is a RT to Communicable diseases.<br>Would be happy to accept JPC decision on this however if Animal as carriers... is a RT then it should have a BT. | Disease vectors is not a term that is referred to in P – 10 syllabus documents. The references to “animals as carriers of diseases” is mentioned in the reference materials for Year 11 Biology – so may be relevant at some time.<br>Certainly the object “Outbreak” potentially addresses mosquitoes as carriers of disease and rats. Perhaps even reference to “flies” –have not seen the completed object the scenario is hinting at these inclusions.<br>Relevant to therefore need to have a “concept” in ScOT to address this reference.<br>Suggest: Remove the reference to disease vectors and rationalise the use of (Based on Library of Congress)<br><br>BT Communicable diseases<br>..With RT<br>Animals as carriers of disease<br>...with NT<br>Insects as carriers of disease<br>.....RT Flies, Mosquitoes<br>Rodents as carriers of disease<br>.....RT Rats | See entry 15 in this section. |

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|     |   |  | etc as relevant in objects  |   |
| 17. | Diseases<br>BT1: Medicine<br>NT1: Bacterial infection<br>NT2: Cholera<br>NT2: Plague<br>NT2: Typhoid<br>NT3: Salmonella typhi<br>NT1: Cholera<br>NT1: Communicable diseases<br>NT2: Antibiotics<br>NT2: Bacterial infection<br>NT3: Cholera<br>NT3: Plague<br>NT3: Typhoid<br>NT4: Salmonella typhi<br>Etc. | NT Bacterial infection, Dengue fever, Ebola, Influenza, Malaria, Plague, SARS (diseases) and Smallpox are all NT under Communicable diseases. NT Cholera appears as a NT under Bacterial infection. NT Communicable diseases appears as NT under Epidemiology RT Epidemics <b>appears as a NT under singular form of Pandemic</b> RT Pandemics has singular form as NT.<br><br><b>CC response</b><br>Agree with revised reference structure. | References fixed<br><br><b>Action:</b> Plural term “Pandemics” used | Diseases<br>BT: Medicine<br>NT: Cancer<br>Communicable diseases<br>Pathogens<br>Diabetes<br>Eye diseases<br>RT: Antibiotics<br>Bacteria<br>Epidemics<br>Microbiology<br>Parasites<br>Vaccination<br>Viruses (Biology) |
| 18. | Disk brakes<br>BT1: Brakes<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT1: Machinery  | BT Brakes appears as a NT under Machinery. Brakes in ScOT appears as NT under Machinery.   | Corrected reference structure.                                      | Disk brakes<br>BT: Brakes   |
| 19. | Drugs<br>BT1: Medicine<br>NT1: Chemotherapy<br>NT2: Antibiotics<br>NT1: Antibiotics   | Query NT Chemotherapy. Argument is that chemotherapy is not a type of drug but rather a treatment. NT Antibiotics appears as a NT under Chemotherapy.<br><br><b>CC response</b><br>Agree with revised reference structure.   | Based on SCIS<br><br><b>Action:</b> Chemotherapy references removed | Drugs<br>BT: Medicine<br>NT: Antibiotics  |
| 20. | Ebola fever<br>UF: Ebola fever hemorrhagic fever<br>BT1: Diseases<br>BT2: Medicine<br>BT1: Communicable diseases  | BT Communicable diseases appears under Diseases as a NT.<br><br><b>CC response</b><br>Agree with revised reference structure.  | Structures for diseases changed as previously referenced            | Ebola fever<br>UF: Ebola fever hemorrhagic fever<br>BT: Viral infection<br>RT: Primates as carriers of disease<br>Public health   |

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|     | BT2: Diseases<br>Etc.   |   |   |  |
| 21. | <p>Epidemics<br/> UF: Pestilences<br/> UF: Plagues<br/> BT1: Communicable diseases<br/> BT2: Diseases<br/> BT3: Medicine<br/> BT2: Public health<br/> BT3: Health<br/> BT4: Medicine<br/> BT2: Medicine<br/> BT2: Epidemiology<br/> BT3: Diseases<br/> BT4: Medicine<br/> BT3: Public health<br/> BT4: Health<br/> BT5: Medicine<br/> BT1: Public health<br/> BT2: Health<br/> BT3: Medicine<br/> BT1: Epidemiology<br/> BT2: Diseases<br/> BT3: Medicine<br/> BT2: Public health<br/> BT3: Health<br/> BT4: Medicine<br/> BT1: Pandemic<br/> BT2: Communicable diseases<br/> BT3: Diseases<br/> BT4: Medicine<br/> BT3: Public health<br/> BT4: Health<br/> BT5: Medicine<br/> BT3: Medicine<br/> BT3: Epidemiology<br/> BT4: Diseases<br/> BT5: Medicine<br/> BT4: Public health<br/> BT5: Health</p> | <p>Error report generated from MultiTes indicated that RT Diseases was also a BT under Epidemics in the supplied list. Prefer Epidemics as the preferred subject tern with the UF Plagues and Pestilences. Both UF do not appear to be as commonly used nowadays.</p> <p><b>CC response</b><br/> Agree with JPC recommendations re Plagues and separate reference to Epidemics.</p> | <p>Definitions included below:<br/> This is the reference from SCIS<br/> Plagues<br/> <b>Use:</b><br/> <u>Epidemics</u><br/> <u>Plague</u></p> <p>Prefer to keep reference to Plagues and separate reference to Epidemics</p> <p>Plague<br/> A widespread affliction or calamity, especially one seen as divine retribution.<br/> A sudden destructive influx or injurious outbreak: <i>a plague of locusts; a plague of accidents.</i><br/> A cause of annoyance; a nuisance: “the plague of social jabbering” (George Santayana).<br/> A highly infectious, usually fatal, epidemic disease; a pestilence.<br/> A highly fatal infectious disease that is caused by the bacterium <i>Yersinia</i> (syn. <i>Pasturella</i>) <i>pestis</i>, is transmitted primarily by the bite of a rat flea, and occurs in bubonic, pneumonic, and septicemic forms.</p> <p>Epidemics<br/> Spreading rapidly and extensively by infection and affecting many individuals in an area or a population at the same time: <i>an epidemic outbreak of influenza.</i><br/> Widely prevalent: <i>epidemic discontent.</i></p> <p>Pestilence</p> | <p>Epidemics<br/> UF: Pestilences<br/> BT: Communicable diseases<br/> Public health<br/> NT: Plague<br/> RT: Bacterial infection<br/> Diseases<br/> Epidemiology<br/> Quarantine<br/> Vaccination<br/> Viral infection</p> <p>Plague<br/> UF: Bubonic Plague<br/> Plagues<br/> BT: Bacterial infection<br/> Epidemics<br/> RT: Insects as carriers of disease<br/> Public health<br/> Rodents as carriers of disease</p> |

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|     | BT6: Medicine<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>RT: Diseases<br>RT: Bacterial infection<br>RT: Quarantine<br>RT: Vaccination<br>RT: Viral infection   |  | A usually fatal epidemic disease, especially bubonic plague.<br>A pernicious, evil influence or agent. |  |
| 22. | Epidemiologists<br>BT1: Scientists<br>RT: Diseases<br>RT: Epidemiology   | See comments under Bacteriologists.<br><br><b>CC response</b><br>Agree with revised reference structure.   | Added to BT Occupations  | Epidemiologists<br>BT: Occupations<br>RT: Epidemiology   |
| 23. | Epidemiology<br>BT1: Diseases<br>BT2: Medicine<br>BT1: Public health<br>BT2: Health<br>BT3: Medicine<br>NT1: Communicable diseases<br>NT2: Antibiotics<br>NT2: Bacterial infection<br>NT3: Cholera<br>NT3: Plague<br>NT3: Typhoid<br>NT4: Salmonella typhi<br>NT2: Bacteriology<br>NT3: Immunity<br>NT2: Cholera<br>NT2: Dengue fever<br>NT3: Flaviviridae<br>NT2: Ebola fever<br>NT2: Epidemics<br>NT2: Influenza<br>Etc. | Error report generated from MultiTes indicated that RT Epidemiologists was also a NT under Epidemiology<br><br><b>CC response</b><br>Agree with revised reference structure. | Added to BT Occupations  | Epidemiology<br>BT: Microbiology<br>Public health<br>RT: Epidemics<br>Epidemiologists<br>Micro organisms |
| 24. | Fleas<br>RT: Insects as carriers of disease  | BT should be Insects – an existing ScOT subject term.  | SH to add existing ScOT terms.   | Fleas<br>BT: Insects   |



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|     | RT: Plague  | <b>CC response</b><br>Will action.   |   | RT: Insects as carriers of disease   |
| 25. | Food handling<br>BT1: Health<br>BT2: Medicine<br>BT1: Public health <b>Note: NT under Health</b><br>BT2: Health<br>BT3: Medicine  | BT Public health appears as a NT under Health.<br>Suggest a RT be established with Food.<br><br><b>CC response</b><br>Agree with revised reference structure.  | <b>Action:</b> Removed BT Health – Food handling has BT Public health   | Food handling<br>BT: Public health   |
| 26. | Gearing<br>BT1: Bicycles <b>Note: NT under Wheels</b><br>BT2: Transport<br>BT2: Vehicles<br>BT1: Wheels<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT2: Vehicles  | BT Wheels appears as a NT under Bicycles.<br>See also comments under Bicycles in regards to reference structure.<br><br><b>CC response</b><br>Agree with revised reference structure including addition of different types of gears. | <b>Action:</b> have changed term in line with ScOT – “Gears” and added to BT Machinery<br><br>Note: have added different types of gears Spur, helical, bevel, worm. Other type that is mentioned is Rack and pinion gears – do you want this compound term.<br>These are the basic gear types mentioned in understanding of simple machines<br>A new term “Bearings” has been added to support concept of gears and simple machines | Gears<br>BT: Machinery<br>NT: Bevel gears<br>Gear ratio<br>Gear teeth<br>Helical gears<br>Spur gears<br>Worm gears<br>RT: Cogs   |
| 27. | Health<br>BT1: Medicine<br>NT1: Food handling<br>NT1: Public health<br>NT2: Bacterial infection<br>NT3: Cholera<br>NT3: Plague<br>NT3: Typhoid<br>NT4: Salmonella typhi<br>NT2: Cholera<br>NT2: Communicable diseases<br>NT3: Antibiotics<br>NT3: Bacterial infection<br>NT4: Cholera | NT Food handling appears as a NT under Public health.<br><br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> remove food handling from Health – left under Public health  | Health<br>BT: Medicine<br>NT: Exercise<br>NT: Hygiene<br>NT: Occupational health and safety<br>NT: Physical fitness<br>NT: Public health<br>NT: Rest (Health)<br>NT: Sleep<br>NT: Vaccination<br>NT: Ventilation |

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|     | <p>NT4: Plague<br/> NT4: Typhoid<br/> NT5: Salmonella typhi<br/> NT3: Bacteriology<br/> NT4: Immunity<br/> NT3: Cholera<br/> NT3: Dengue fever<br/> NT4: Flaviviridae<br/> NT3: Ebola fever<br/> Etc.</p>   |  |   | <p>RT: Diet<br/> RT: Fast food<br/> RT: Sanitation</p>   |
| 28. | <p>Hospitals<br/> BT1: Public health<br/> BT2: Health<br/> BT3: Medicine</p>  | <p>Link to Buildings (Structures) as NT.</p> <p><b>CC response</b><br/> In ScOT all types of buildings already added as part of the Innovation, Enterprise and Creativity project were as NT under Buildings (Structures). Whilst hospitals per se may not have relevance to science objects they will have relevance to other areas of the curricula.</p>   | <p>Not clear on this – no relevance to “science” objects</p>  | <p>Hospitals<br/> BT Buildings (Structures)<br/> Public health<br/> RT Health services</p>   |
| 29. | <p>Machinery<br/> NT1: Brakes<br/> NT2: Disk brakes<br/> NT2: Hub brakes<br/> NT2: Rim brakes<br/> NT1: Disk brakes<br/> NT1: Hub brakes<br/> NT1: Rim brakes<br/> NT1: Wheels<br/> NT2: Axles<br/> NT2: Cogs<br/> NT2: Gearing<br/> NT2: Tyres</p> | <p>NT Disk brakes, Hub brakes and Rim brakes all appear as NT under Brakes. See also the existing ScOT subject term for Machinery although CC is happy to revise the reference structure, e.g. Gears appears as a NT under Machinery in ScOT rather than Wheels as in this version of the subject term.</p> <p><b>CC response</b><br/> Agree with revised reference structure. In reference to gears vs gearing would prefer the former as it relates to specific gears whereas gearing could relate to gearing systems. Happy to receive further advice from JPC.</p> | <p><b>Action:</b> references to Brake types removed as NTs</p> <p>Structure reflects Wheels and Brakes as significant terms under machinery</p> <p>Interested in “gearing” Vs “gears” –</p> | <p>Machinery<br/> UF: Simple machines<br/> BT: Technology<br/> NT: Agricultural machinery<br/> NT: Belts<br/> NT: Brakes<br/> NT: Construction equipment<br/> NT: Electric machinery<br/> NT: Engines<br/> NT: Gears<br/> NT: Hoisting equipment<br/> NT: Inclined planes<br/> NT: Levers<br/> NT: Pendulums</p> |

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|     |   |  |  | NT: Pulleys<br>NT: Refrigeration<br>NT: Wheels<br>NT: Bearings (Machinery)<br>RT: Mechanical drawing<br>RT: Bicycles  |
| 30. | Medical virology <b>Note: Shown in list with BT Communicable diseases; BT Diseases; BT Medicine; BT Public health. Shown in list with NT Ebola fever; NT Influenza; SARS; Dengue fever. Shown in list with RT Viruses (Biology)</b><br>USE: Viral infection | Error report generated from MultiTees indicated that Medical virology was also a preferred term with BTs Communicable diseases, Diseases, Medicine, Public health. NTs Ebola fever, Influenza, SARS, Dengue fever and RT Viruses (Biology).<br><br><b>CC response</b><br>Agree with revised reference structure. | USE is the preferred option                              | Medical virology<br>USE: Viral infection  |
| 31. | Medicine<br>NT1: Bacterial infection<br>NT2: Cholera<br>NT2: Plague<br>NT2: Typhoid<br>NT3: Salmonella typhi<br>NT1: Bacteriology<br>NT2: Immunity<br>Etc.  | NT Bacteriology is also a NT under Communicable diseases.<br>NT Communicable diseases appears as a NT under Diseases.<br><b>CC response</b><br>Agree with revised reference structure.   | This hierarchy fixed – see comments previously outlined. | Medicine<br>NT: Alternative medicine<br>NT: Diseases<br>NT: Drugs<br>NT: Health<br>NT: Medical instruments<br>NT: Medical procedures<br>NT: Rehabilitation (Medicine)<br>NT: Space medicine<br>NT: Therapy<br>NT: Veterinary medicine<br>RT: Anaesthetics<br>RT: Bioethics<br>RT: Illnesses |
| 32. | Micro-organisms<br>BT1: Microbiology <b>Note: Also shown as a RT</b><br>BT2: Biology  | Error report from MultiTees indicated BT Microbiology was also shown as a RT in the supplied list.   |  | Micro organisms<br>UF: Micro-organisms<br>Microorganisms<br>BT: Microbiology  |

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|     | BT1: Biology<br>NT1: Pathogens<br>RT: Bacteria<br>RT: Bacteriology<br>RT: Microscopes<br>RT: Microscopy<br>RT: Viruses (Biology)   |  |                         | NT: Pathogens<br>RT: Bacteria<br>Bacteriology<br>Epidemiology<br>Microscopes<br>Microscopy<br>Viruses (Biology)  |
| 33. | Microbiologists<br>BT1: Scientists<br>RT: Bacteria<br>RT: Microbiology<br>RT: Viruses (Biology)<br>RT: Parasites   | See comments under Bacteriologists.<br><br><b>CC response</b><br>Agree with revised reference structure.   | Added as Occupations    | Microbiologists<br>BT: Occupations<br>RT: Bacteria<br>Microbiology<br>Viruses (Biology)<br>Parasites   |
| 34. | Microbiology<br>BT1: Biology<br>NT1: Bacteria <b>Note: Shown also as a RT.</b><br>NT2: Bacillus<br>NT2: Bacteriology<br>NT3: Immunity<br>NT2: Coccus<br>NT2: Diplococcus<br>NT2: Salmonella tyhimuium<br>NT2: Sulfolobus acidocaldarius<br>NT2: Spirulina oscillatoria<br>NT2: Streptococcus mutans<br>NT2: Cholera<br>NT2: Plague<br>NT2: Salmonella typhi<br>NT2: Typhoid<br>NT3: Salmonella typhi<br>Etc. | Error report from MultiTees indicated that NTs Bacteria, Micro-organisms, Microscopes and Microscopy were also shown as an RT in the supplied list. NT Coronavirus also appears as NT under SARS (diseases) > NT under Viruses (Biology). It also appears as NT under Viruses (Biology)<br><br><b>CC response</b><br>Agree with revised reference structure. | All references fixed    | Microbiology<br>BT: Biology<br>NT: Bacteriology<br>Epidemiology<br>Flagellum<br>Micro organisms<br>Microscopes<br>Microscopy<br>RT: Diseases<br>Microbiologists<br>Viruses (Biology) |
| 35. | Microscopes<br>BT1: Microbiology<br>BT2: Biology<br>RT: Bacteria<br>RT: Micro-organisms  | Microscopes in ScOT is a NT under Scientific instruments and has NTs Electron microscopes and Light microscopes.<br><br><b>CC response</b><br>CC to action.  | SH to add ScOT headings | Microscopes<br>BT: Microbiology<br>NT Electron microscopes<br>Light microscopes<br>RT: Bacteria<br>Micro organisms   |

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| 36. | Mosquitoes<br>UF: Diptera<br>RT: Dengue fever<br>RT: Insects as carriers of disease<br><b>Note: Also shown as a BT</b><br>RT: Malaria   | Error report in MultiTes indicated that RT Insects as carriers of disease was also shown as a BT in the original list. BT should be Insects.<br><br><b>CC response</b><br>Agree with revised reference structure.   | SH to add ScOT term insects<br><br><b>Action:</b> BT Insects has NT Mosquitoes and Fleas and RT Insects as carriers of disease | Mosquitoes<br>UF: Diptera<br>BT: Insects<br>RT: Insects as carriers of disease   |
| 37. | Pandemic<br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>Etc.   | <b>CC response</b><br>Agree with decision.  | <b>Action:</b> Removed this reference – terms very close to Epidemics which is term from curriculum                            | Removed  |
| 38. | Pandemics<br>RT: Diseases   | Is this correct? Singular form has also been supplied. See also entry 37.   | <b>Action:</b> Removed this reference – terms very close to Epidemics which is term from curriculum                            | Removed  |
| 39. | Parasites<br>UF: Diseases and pests<br>UF: Animal parasites<br>UF: Parasitic animals<br>UF: Entozoa<br>UF: Epizoa<br>BT1: Biology<br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>BT2: Medicine<br>BT2: Epidemiology<br>BT3: Diseases<br>BT4: Medicine<br>BT3: Public health<br>BT4: Health<br>BT5: Medicine<br>BT1: Diseases<br>BT2: Medicine | Error report in MultiTes indicated that NT Malaria was also shown as a RT in the original list. Would prefer Malaria to be RT as it is not considered to be a parasite but rather a disease caused by mosquitos. See also reference structure for Parasitic infections.<br>NT Plasmodium falciparum also shown as a NT under Malaria. |  | Parasites<br>UF: Animal parasites<br>Diseases and pests<br>Entozoa<br>Epizoa<br>Parasitic animals<br>BT: Communicable diseases<br>NT: Ectoparasites<br>Endoparasites<br>RT: Diseases<br>Microbiologists<br>Parasitic infection |

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|     | NT1: Bacteriology<br>NT2: Immunity<br>NT1: Malaria<br>NT2: Plasmodium falciparum<br>NT1: Endoparasites<br>NT1: Ectoparasites<br>NT1: Plasmodium falciparum<br>RT: Microbiologists  |   |  |   |
| 40. | Plague<br>UF: Bubonic Plague<br>UF: Plagues<br>BT1: Bacteria<br>BT2: Biology<br>BT2: Microbiology<br>BT3: Biology<br>BT1: Bacterial infection<br>Etc.  | BT Bacterial infection is also a NT under Communicable diseases.<br><br><b>CC response</b><br>Agree with revised reference structure.   | Earlier changes fixed                  | Plague<br>UF: Bubonic Plague<br>Plagues<br>BT: Bacterial infection<br>Epidemics<br>RT: Insects as carriers of disease<br>Public health<br>Rodents as carriers of disease  |
| 41. | Primates as carriers of disease<br>BT1: Animals as carriers of disease<br>BT2: Disease vectors<br>BT3: Diseases<br>BT4: Medicine<br>BT1: Disease vectors<br>BT2: Diseases<br>BT3: Medicine   | Error report in MultiTes indicated that BT Animals as carriers of Disease also shown as a RT.<br>BT Disease vectors has NT Animals as carriers of disease.<br><br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> Disease vectors removed | Primates as carriers of disease<br>BT: Animals as carriers of disease<br>RT: Chimpanzees<br>Ebola fever   |
| 42. | Public health<br>BT1: Health<br>BT2: Medicine<br>NT1: Bacterial infection<br>NT2: Cholera<br>NT2: Plague<br>NT2: Typhoid<br>NT3: Salmonella typhi<br>NT1: Cholera<br>NT1: Communicable diseases<br>NT2: Antibiotics<br>NT2: Bacterial infection<br>NT3: Cholera<br>NT3: Plague | NT Cholera is also NT under Bacterial infection.<br>NT Communicable diseases is also a NT under Epidemiology<br>NT Dengue fever, Ebola fever and Epidemics Plagues, Viruses (Biology) and SARS are also NT under Communicable diseases.<br>NT Epidemics is a NT under Pandemics.<br>NT Pandemics is a NT under Communicable diseases.<br>NT Smallpox also NT under Viral infection. | Hierarchy changed                      | Public health<br>BT: Health<br>NT: Communicable diseases<br>Epidemics<br>Epidemiology<br>Food handling<br>Hospitals<br>Quarantine<br>Rubbish disposal<br>Sewage disposal<br>Vaccination<br>Water pollution<br>RT: Bacteria<br>Cholera |

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|     | NT3: Typhoid<br>NT4: Salmonella typhi<br>Etc.   | <b>CC response</b><br>Agree with revised reference structure.  |   | Dengue fever<br>Ebola fever<br>Influenza<br>Malaria<br>Parasitic infection<br>Plague<br>Sanitation<br>SARS (diseases)<br>Smallpox<br>Typhoid<br>Viruses (Biology) |
| 43. | Rats<br>RT: Plague  | Link to Animals as carriers of disease as RT.<br><br><b>CC response</b><br>Agree with revised reference structure. Added BT Placentals as part of integration. | Action: included reference for "Rodents as carriers of disease" | Rats<br>BT Placentals<br>RT Plague<br>RT: Rodents as carriers of disease  |
| 44. | Rim brakes<br>BT1: Brakes<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT1: Machinery | See comments under Bicycles and Machinery.   |   | Rim brakes<br>BT: Brakes  |
| 45. | Rubbish disposal<br>BT1: Public health<br>BT2: Health<br>BT3: Medicine  | Link to existing ScOT subject term Wastes.<br><br><b>CC response</b><br>CC to action. Following integration into ScOT changed to non preferred subject term.   | SH to make link to existing ScOT terms                          | Rubbish disposal<br>USE Waste disposal  |
| 46. | Salmonella tyhimuium<br>BT1: Bacteria<br>BT2: Biology<br>BT2: Microbiology<br>BT3: Biology                        | Is there warrant to establish Food poisoning of link as RT to Food handling?   |   | Salmonella tyhimuium<br>BT: Bacteria  |
| 47. | Salmonella typhi<br>BT1: Bacteria   | Is there warrant to establish Food poisoning of link as RT to Food   |   | Salmonella typhi<br>BT: Bacteria  |

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|     | BT2: Biology<br>BT2: Microbiology<br>BT3: Biology<br>BT1: Typhoid<br>Etc...   | handling?  |   | RT: Typhoid   |
| 48. | Sanitation<br>RT: Cholera<br>RT: Health<br>RT: Public health<br>RT: Typhoid   | Link Rubbish disposal as NT.<br><br><b>CC response</b><br>Agree with revised reference structure.  | <b>Action:</b> link made to Rubbish disposal<br><br>Note: this is purely dependent on the content of the object | Sanitation<br>BT: Sewage disposal<br>NT: Rubbish disposal<br>RT: Cholera<br>Health<br>Public health<br>Typhoid  |
| 49. | SARS<br>BT1: Diseases<br>BT2: Medicine  | Assume this is an error? Delete from list.<br><br><b>CC response</b><br>Agree.   | This is an error  | Removed   |
| 50. | SARS (diseases)<br>UF: Severe Acute Respiratory Syndrome<br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>BT2: Medicine<br>BT2: Epidemiology<br>BT3: Diseases<br>Etc. | Remove qualifier as is unlikely to be established as a homograph (refer to <i>ScOT Quality Assurance Specifications</i> )<br><br><b>CC response</b><br>No as it is unlikely to be confused with anything else. | Does the qualifier prevent users from adding the incorrect term?  | Qualifier removed.<br><br>SARS<br>UF: Severe Acute Respiratory Syndrome<br>BT: Viral infection<br>Viruses (Biology)<br>NT: Coronavirus<br>RT: Public health<br>Quarantine |
| 51. | Scientists<br>NT1: Bacteriologists<br>NT1: Epidemiologists<br>NT1: Microbiologists  | <b>CC response</b><br>Agree with revised reference structure.  | This now reflects the suggestion from SH to link all directly to the BT Occupations                             | Scientists<br>BT: Occupations (Work)<br>NT: Astronomers<br>NT: Geologists<br>NT: Physicists<br>RT: Biochemists<br>RT: Biologists  |



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|     |   |  |   | RT: Chemists<br>RT: Meteorologists<br>RT: Palaeontologists<br>RT: Science                |
| 52. | Sewage disposal<br>BT1: Public health<br>BT2: Health<br>BT3: Medicine   | Link to Sanitation as NT and Rubbish disposal and Sewage as a RT.<br><br><b>CC response</b><br>Agree with revised reference structure.   | Action: Links made as advised   | Sewage disposal<br>BT: Public health<br>NT: Sanitation<br>RT: Rubbish disposal<br>Sewage |
| 53. | Smallpox <b>Note: RT Immunology is a USE</b><br>BT1: Communicable diseases<br>BT2: Diseases<br>BT3: Medicine<br>BT2: Public health<br>BT3: Health<br>BT4: Medicine<br>BT2: Medicine<br>BT2: Epidemiology<br>BT3: Diseases<br>BT4: Medicine<br><b>Etc.</b> | Error report in MultiTes indicated that RT Immunology was a USE in the original list.<br>RT Vaccinations also shown as a NT in the original list.<br><br><b>CC response</b><br>Agree with revised reference structure. | SH has fixed  | Smallpox<br>UF: Variola<br>BT: Viral infection<br>RT: Public health<br>Vaccination       |
| 54. | Tyres<br>BT1: Bicycles<br>BT2: Transport<br>BT2: Vehicles<br>BT1: Wheels<br>BT2: Bicycles<br>BT3: Transport<br>BT3: Vehicles<br>BT2: Machinery<br>BT2: Vehicles   | Agree with Wheels as BT but not Bicycles. Bicycles and Wheels are not the same species.<br><br><b>CC response</b><br>Agree with revised reference structure.   | As previously outlined<br><br>New relationship with BT Machinery<br><br>Wheels<br>NT Tyres<br>NT Axles<br>NT Cogs | Tyres<br>BT: Wheels  |
| 55. | Vehicles<br>NT1: Bicycles<br>NT2: Brakes<br>NT3: Disk brakes<br>NT3: Hub brakes<br>NT3: Rim brakes  | Disagree with NT Wheels as bicycles and wheels are different species.<br><br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> removed  | Removed  |

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|     | Etc.   |  |   |  |
| 56. | Viruses<br>NT1: Smallpox   | Assume that this is an error. Delete from list?<br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> Error - deleted  | Removed  |
| 57. | Viruses (Biology)<br>BT1: Microbiology<br>BT2: Biology<br>BT1: Biology<br>NT1: Coronavirus<br>NT1: Dengue fever<br>NT2: Flaviviridae<br>NT1: Ebola fever<br>NT1: Influenza<br>NT1: SARS (diseases)<br>NT2: Coronavirus<br>RT: Bacteria<br>RT: Diseases<br>RT: Microbiologists<br>RT: Micro-organisms<br>RT: Pathogens<br>RT: Public health | NT Coronavirus is a NT under SARS (disease)<br><br><b>CC response</b><br>Agree with revised reference structure. Removed qualifier following integration into SCOT.  | Appears only once in reference structure after changes have been made   | Viruses<br>NT: Influenza<br>SARS (diseases)<br>RT: Bacteria<br>Diseases<br>Micro organisms<br>Microbiologists<br>Microbiology<br>Pathogens<br>Public health<br>Viral infection |
| 58. | Water pollution<br>BT1: Public health<br>BT2: Health<br>BT3: Medicine  | Link to Pollution as BT? Link to Water.<br><br><b>CC response</b><br>Agree with revised reference structure.   | <b>Action:</b> linked to Water pollution<br><br>Interesting – the connotation is “contaminated” water – rather than environmental bent  | Water pollution<br>BT: Pollution<br>Public health<br>RT: Cholera   |
| 59. | Wheels<br>BT1: Bicycles<br>BT2: Transport<br>BT2: Vehicles<br>BT1: Machinery<br>BT1: Vehicles<br>NT1: Axles<br>NT1: Cogs<br>NT1: Gearing<br>NT1: Tyres   | See comments under Vehicles and Bicycles.<br><br><b>CC response</b><br>Agree with revised reference structure. In reference to spokes and spikes CC would be happy for JPC to add spokes, etc. if suitable subject terms could be sourced. Agree that it is a very specific concept. | References changed<br><br>Wheels<br>Bt Machinery<br>NT Axles<br>NT Cogs<br>NT Tyres<br><br>Not sure how esoteric to get here – learning object description mentions changing “spokes” to vary performance | Wheels<br>BT: Machinery<br>NT: Axles<br>Cogs<br>Tyres  |

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|  |  |  | – no reference in curriculum documents to spokes – internet research indicates some “spke” design influences speed? Should this term be included? Couldn't find reference in any “textbook” sources either. |  |
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## 7.2 Quality assurance of subject terms relating to LO “Jaws” and “Gale Force”

| No. | Subject term  | CC comment  | JPC comment  | Outcome  |
|-----|---|---|--|--|
| 60. | Air masses<br>BT1: Weather<br>NT1: Convergence lifting<br>NT1: Fronts (Meteorology)<br>NT2: Cold fronts<br>NT2: Warm fronts<br>RT: Subtropical highs                  | Link to Atmosphere (Earth) as RT?<br><br><b>CC comment</b><br>Agree                                   | <b>Action</b><br>Atmosphere (Earth) added as RT.                           | Air masses<br>BT: Weather<br>Meteorology<br>NT: Convergence lifting<br>Fronts (Meteorology)<br>Orographic uplift<br>RT: Atmosphere (Earth)<br>Subtropical highs<br>Jet streams |
| 61. | Air pressure<br>NT1: Hectopascals<br>NT1: Highs (Meteorology)<br>NT2: Isobars<br>NT1: Lows (Meteorology)<br>NT2: Isobars<br>NT1: Subtropical highs<br>RT: Storm surge | BT Weather<br><br><b>CC comment</b><br>Agree  | SH to add terms already in ScOT.<br><br><b>Action</b><br>BT Weather added. | Air pressure<br>BT: Weather<br>NT: Hectopascals<br>Highs<br>Lows<br>Subtropical highs<br>RT: Storm surge   |
| 62. | Animals extinct<br>USE: Extinct animals   | Is this an inverted subject term?<br>Recommend that it is deleted.                                    | <b>Action</b><br>Deleted   | Removed  |
| 63. | Anticyclone (High Pressure system)<br>USE: Highs (Meteorology)  | Spelling error. Should be Anticyclone?<br>Removed qualifier following integration in ScOT.            | <b>Action</b><br>Corrected   | Anticyclone (High pressure system)<br>USE: Highs   |
| 64. | Bioweather<br>BT1: Weather<br>SN: Weather sensitivity: people react   | Rework SN as it appears confusing.<br>Suggest that SN commences with:<br>“Use for resources about...” | <b>Action</b><br>SN altered<br>SN  | Bioweather<br>SN: Use for resources on how weather affects health.   |

| No. | Subject term  | CC comment  | JPC comment  | Outcome  |
|-----|---|---|--|--|
|     | with varying intensity to changes in weather elements such as air pressure, temperature and humidity. | Is there any other suitable subject terms that could be related to this concept?<br><b>CC comment</b><br>Agree  | Used for how weather affects health  | BT Weather   |
| 65. | Bones<br>BT1: Skeletal system   | ScOT has RT Calcification. Should this be retained?<br><br><b>CC comment</b><br>Agree. Changes made if required.  | Unaware RT in ScOT.<br>May need to distinguish between Calcification (Physiology) and (Geology)  | Bones<br>BT: Skeletal system<br>NT: Femurs<br>Fibulas<br>Patellas<br>Tibias<br>RT: Calcification<br>Fractures<br>Ligaments<br>Orthopaedics |
| 66. | Carnivores<br>RT: Ekaltadeta<br>RT: Thylacoleo carnifex   | BT Animals<br><br><b>CC comment</b><br>Agree. Will action.  | SH to add terms already in ScOT<br><b>Action</b><br>Added BT   | Carnivores<br>BT: Animals<br>RT: Ekaltadeta<br>Thylacoleo carnifex<br>Insectivores   |
| 67. | Climate change<br>RT: Megafauna   | Query Megafauna as a RT.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Removed Megafauna as RT   | Removed  |
| 68. | Computer sciences<br>RT: Weather models   | Query RT Weather models. Potentially any topic could be related to computer sciences in some way. Recommend RT removed.<br><br><b>CC comment</b><br>Agree | <b>Action</b><br>RT removed<br>Attempting to link the relationship between sophisticated technology and science. (and impact on society) This is a very strong focus in the NZ curriculum. | Computer sciences<br>BT: Technology<br>NT: Computer simulations  |
| 69. | Cyclone warning<br>BT1: Cyclones<br>BT2: Extreme weather<br>BT3: Weather<br>RT: Meteorologists        | Query RT Meteorologists as any weather phenomena could be related to the responsibilities of a meteorologist.   | <b>Action</b><br>RT removed  | Cyclone warning<br>BT: Cyclones<br>RT: Weather radar<br>Weather satellites   |

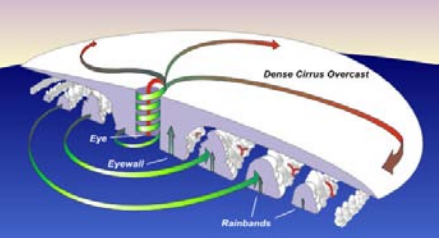
| No. | Subject term   | CC comment   | JPC comment   | Outcome   |
|-----|--|--|---|---|
|     | RT: Weather radar<br>RT: Weather satellites  | <b>CC comment</b><br>Agree   |   |   |
| 70. | Cyclones<br>UF: Hurricanes<br>UF: Tropical cyclones<br>UF: Typhoons<br>BT1: Extreme weather<br>BT2: Weather<br>NT1: Cyclone warning<br>NT1: Eye of the cyclone<br>NT1: Eyewall (meteorology)<br>NT1: Rainbands<br>RT: Storm surge<br>RT: Weather radar<br>RT: Weather satellites | Query RT Weather radar and Weather satellites. Would all weather use these? Rainfall patterns would use weather radar for example. I think this probably needs further discussion/consideration.<br><br><b>CC comment</b><br>Agree<br>Following further discussion regarding this subject term and Cyclones (Low pressure system) after integration it was agreed to change the preferred subject term to Tropical cyclones.   | <b>Action removed:</b><br>Weather radar<br>Weather satellites   | Tropical cyclones<br>UF: Hurricanes<br>Typhoons<br>BT: Natural disasters<br>Extreme weather<br>NT: Cyclone warning<br>Eye of the cyclone<br>Eyewall<br>Rainbands<br>RT: Storm surge |
| 71. | Cyclones (low pressure systems)<br>USE: Lows (Meteorology)   | Not sure of the relationship between this and cyclones? If retained suggest the qualifier is revised. Needs further discussion.<br><br><b>CC comment</b><br>In light of additional information from JPC could Tropical cyclones be changed from a non preferred subject term to preferred?<br>Hurricanes could be added as a UF under Tropical cyclones.<br>Recommend that JPC consider this Removed qualifier following integration into ScOT. See comments under entry 70 above. | Differentiation needed between cyclones<br><br>(low pressure area) and tropical cyclones which are referred to as cyclones.<br><br><b>Bureau of Meteorology</b><br><br>Mid-latitude <b>cyclones</b> or low pressure systems are atmospheric circulations that rotate clockwise in the Southern Hemisphere (anti-clockwise in the Northern Hemisphere). Cyclones are areas of lower pressure and generally associated with stronger winds, unsettled conditions, cloudiness and rainfall.<br><br><u>Tropical cyclones</u> are described separately<br><br><b>Tropical cyclones</b> , which are called hurricanes in the Northern Hemisphere, | Cyclones<br>USE: Lows (Meteorology)   |

| No. | Subject term   | CC comment  | JPC comment  | Outcome  |
|-----|--|---|--|--|
|     |  |   | are intense low pressure systems which form over warm ocean waters at low latitudes. Tropical cyclones are associated with strong winds, torrential rain and storm surges (in coastal areas). Tropical cyclones can cause extensive damage as a result of the strong wind, and flooding (caused by either heavy rainfall or ocean storm surges). |  |
| 72. | Digs (Archaeology)<br>USE: Excavations (Archaeology)   | Remove qualifier.<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>Removed qualifier   | Digs<br>USE: Excavations (Archaeology)   |
| 73. | Disaster relief<br>UF: Emergency relief<br>BT1: Disasters<br>BT1: Social welfare<br>NT1: Emergency housing<br>NT1: Emergency public utilities<br>NT1: Evacuation (Civilians)<br>RT: Emergency management | Add UF Civil defence? See also<br>Emergency management<br><br><b>CC comment</b><br>Agree                          | <b>Action</b><br>UF added  | Disaster relief<br>UF Civil defence<br>Emergency relief<br>BT1: Disasters<br>BT1: Social welfare<br>NT1: Emergency housing<br>NT1: Emergency public utilities<br>NT1: Evacuation (Civilians)<br>RT: Emergency management |
| 74. | Emergency management<br>UF: Emergency services<br>BT1: Government role<br>RT: Disaster relief<br>RT: Disasters   | Add UF Civil defence?<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>UF added  | Emergency management<br>UF Civil defence<br>UF: Emergency services<br>BT1: Government role<br>RT: Disaster relief<br>RT: Disasters   |
| 75. | Emergency public utilities<br>BT1: Disaster relief<br>BT2: Disasters<br>BT2: Social welfare  | Compound? What are emergency<br>public utilities? Are these generators,<br>etc.<br><br><b>CC comment</b><br>Agree | <b>Action</b><br>Removed term  | Removed  |
| 76. | Evacuation (Civilians)<br>BT1: Disaster relief   | Remove qualifier.   | <b>Action</b><br>Qualifier removed   | Evacuation<br>BT1: Disaster relief   |

| No. | Subject term   | CC comment  | JPC comment                        | Outcome   |
|-----|--|---|------------------------------------|---|
|     | BT2: Disasters<br>BT2: Social welfare  | <b>CC comment</b><br>Agree. SN is not necessary as definition can be sourced from Macquarie. Qualifiers are not used in ScOT as replacements for SNs. Happy to provide further clarification on this. | SN added                           | BT2: Disasters<br>BT2: Social welfare                                       |
| 77. | Extinct marsupial<br>NT1: Diprotodon optatum   | This should be in the plural? See below.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Term plural       | Extinct marsupials<br>NT1: Diprotodon optatum                               |
| 78. | Extreme weather<br>UF: Severe weather events<br>BT1: Weather<br>NT1: Cyclones<br>NT2: Cyclone warning<br>NT2: Eye of the cyclone<br>NT2: Eyewall (meteorology)<br>NT2: Rainbands<br>SN: Occurs when one or more of the elements in relation to the state of the atmosphere (weather) ie temperature, humidity, cloudiness, precipitation, winds, air pressure etc occurs with unusual force or quantity. | Query need for SN.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Removed SN        | Extreme weather<br>UF: Severe weather events<br>BT: Weather<br>NT: Cyclones |
| 79. | Eyewall (meteorology)<br>BT1: Cyclones<br>BT2: Extreme weather<br>BT3: Weather   | Remove qualifier.<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>Removed qualifier | Eyewall<br>BT: Cyclones   |
| 80. | Gusts<br>BT1: Winds<br>SN: Onset of increased wind speed, but lasting only a few seconds.  | Remove SN. Definition can be sourced from Macquarie.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Removed SN        | Gusts<br>BT: Winds  |
| 81. | Highs (Meteorology)<br>UF: Anticyclone (High Pressure system)  | Remove qualifier.<br><br><b>CC comment</b>  | <b>Action</b><br>Remove qualifier  | Highs<br>UF: Anticyclone<br>BT: Air pressure                                |

| No. | Subject term   | CC comment  | JPC comment   | Outcome  |
|-----|--|---|---|--|
|     | BT1: Air pressure<br>NT1: Isobars  | Agree   |   | NT: Isobars  |
| 82. | Lows (Meteorology)<br>UF: Cyclones(low pressure systems)<br>BT1: Air pressure<br>NT1: Isobars<br>SN: A low pressure area around which the winds blow clockwise in the Southern Hemisphere and anticlockwise in the Northern Hemisphere.  | Remove qualifier. Consider removing SN as well. Definition can be sourced from Macquarie.<br><br><b>CC comment</b><br>Agree | <b>Action</b><br>Removed qualifier and SN                         | Lows<br>UF: Cyclones<br>BT: Air pressure<br>NT: Isobars  |
| 83. | Megafauna<br>BT1: Animals<br>RT: Climate change<br>RT: Diprotodon optatum<br>RT: Diprotodons<br>RT: Extinct animals<br>RT: Extinct mammals<br>RT: Kolopsis torus<br>RT: Megalanis prisca<br>RT: Palorchestes painei<br>RT: Prehistoric animals<br>RT: Procoptodon goliah<br>RT: Thylacoleo carnifex<br>RT: Zygomaturus trilobus<br>SN: Literally means "big fauna", includes extinct and living. | SN will need to be revised.<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>Removed SN<br>Mega as prefix exists on Macquarie | Megafauna<br>BT: Animals<br>RT: Diprotodon optatum<br>Diprotodons<br>Extinct animals<br>Extinct mammals<br>Kolopsis torus<br>Megalanis prisca<br>Palorchestes painei<br>Prehistoric animals<br>Procoptodon goliah<br>Thylacoleo carnifex<br>Zygomaturus trilobus |
| 84. | Meteorologists<br>RT: Cyclone warning  | Query RT. Meteorologist undertake other types of weather related work.<br><br><b>CC comment</b><br>Agree                    | <b>Action</b><br>Removed related term                             | Meteorologists<br>BT: Occupations<br>RT: Meteorology   |
| 85. | Palaeozoologists<br>BT1: Palaeozoology<br>BT2: Palaeontology   | BT should be RT.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Modified<br>BT now RT                            | Palaeozoologists<br>BT: Occupations<br>RT: Paleozoology  |



| No. | Subject term  | CC comment   | JPC comment   | Outcome  |
|-----|---|--|---|--|
| 86. | Rainbands<br>BT1: Cyclones<br>BT2: Extreme weather<br>BT3: Weather<br>SN: The curved bands of clouds and thunderstorms that trail away from the eye of the cyclone. | Compare SN with definition in Macquarie. Are they one and the same, if so then SN could be removed.<br><br><b>CC comment</b><br>Agree. Retain SN as per advice from JPC.<br>Modified SN as per revised Specifications. | <b>Rainbands</b><br>Curved bands of clouds and thunderstorms that trail away from<br><br>the eye wall in a spiral fashion. These bands are capable of producing heavy bursts of rain and wind, as well as tornadoes. There are sometimes gaps in between spiral rain bands where no rain or wind is found. Defined part of tropical cyclone structure. Believe it differs in concept from term in Macquarie. | Rainbands<br>BT: Cyclones<br>SN: Use for resources about the curved bands of clouds and thunderstorms that trail away from the eye of the cyclone. |
| 87. | Weather forecasting<br>NT1: Weather models<br>NT2: Tracking data (Meteorology)  | Delete. Spelling error.<br><br><b>CC comment</b><br>Agree.<br>Added BT Forecasting.  | <b>Action</b><br>Deleted  | Weather forecasting<br>BT Forecasting<br>Weather<br>NT: Weather models<br>RT: Tracking data (Meteorology)<br>Weather maps<br>Weather symbols       |
| 88. | Wind shear<br>SN: A change in wind speed and/or direction   | Needs a BT.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>BT Winds added   | Wind shear<br>BT: Winds<br>SN: A change in wind speed and/or direction.  |

### 7.3 Quality assurance of subject terms relating to LO “Glide” and “In Flight”


| No. | Subject term   | CC comment   | JPC comment  | Outcome   |
|-----|--|--|--|---|
| 89. | Aeronautics<br>BT1: Engineering<br>NT1: Air sports<br>NT1: Aircraft<br>NT2: Gliders<br>NT3: Hang gliders<br>NT2: Ultralights<br>RT: Preflight inspection | Query RT Preflight inspection. Not sure as to the relationship. Happy to receive further advice on this issue from JPC.<br><br><b>CC response</b><br>Agree with changed reference structure and JPC clarification.   | <b>Action</b><br>Removed RT to Aeronautics<br>Made Preflight inspection a RT of Aircraft.<br>Had included because:<br>1. By law all aircraft must undergo a pre-flight inspection.<br>2. The Learning Object brief referred to safety issues of Hang gliding.  | Aeronautics<br>SN: Use for resources on the science, technology or art of flight. For resources of a more general nature about flight use Flight.<br>UF: Aviation<br>BT: Engineering<br>NT: Air transport<br>NT: Aircraft<br>NT: Balloons<br>NT: Kites (Aeronautics)<br>NT: Rockets<br>NT: Space flight<br>NT: Air sports<br>RT: Flight |
| 90. | Air currents<br>BT1: Meteorology   | Could this also be linked to Atmosphere (Earth) and Winds – perhaps as a RT.<br><br><b>CC response</b><br>Agree with revised reference structure.  | <b>Action</b><br>Added<br>RT Atmosphere<br>RT Winds  | Air currents<br>BT: Meteorology<br>RT: Atmosphere (Earth)<br>Winds  |
| 91. | Air density<br>BT1: Meteorology<br>RT: Measurement   | Would a SN be required given the link to Meteorology? I am unsure of the connection.<br><br><b>CC response</b><br>Agree with revised reference structure and clarification provided by JPC.<br>Revised SN as follows:<br>“Use for resources on the mass density of a parcel of air expressed in units of | <b>Action</b><br>BT Density<br>RT Atmosphere<br>SN added<br>Removed Meteorology<br><i>RE the link to Meteorology. Air density in the atmosphere decreases with altitude and this has significant impact on weather.</i><br><a href="http://www.bom.gov.au/info/ftweather/p">http://www.bom.gov.au/info/ftweather/p</a> | Air density<br>BT: Density<br>RT: Atmosphere (Earth)<br>SN: Use for resources on the mass density of a parcel of air expressed in units of mass per volume.   |

| No. | Subject term  | CC comment   | JPC comment   | Outcome  |
|-----|---|--|---|--|
|     |   | <p>mass per volume.”</p> <p><b>JPC Amendment</b><br/>SN revised as per CC</p> <p><b>CC comment</b><br/>Agree</p> | <p>age_3.shtml</p> <p>During the day, when the ground is heated by the sun, small scale turbulence transfers heat from the ground to the air that is in contact with it. This warmed air then rises because its <b>density is less</b>, and is replaced by cooler air from above it. Wind turbulence enhances this effect so that surface heat is readily transferred through the air mass. At night a different situation prevails. Ground no longer heated by the sun cools by losing radiant heat to the upper atmosphere and to space, especially if the sky is cloudless. The air, particularly layers near the ground, becomes cold, even though turbulence is now transferring heat from above down to the cooling surface. <b>Cold air is denser</b> than warm air, so the cold air near the ground sinks to the lowest level it can find, while the warm air remains above it. The wind turbulence now has great difficulty in stirring up the heavier cold air layers near the ground and replacing them with eddies of warm air from higher up. So the cold air becomes even colder, and the wind dies away. This reversal of the normal daytime decrease of temperature with height is called a <b>temperature inversion</b>.</p> |  |
| 92. | <p>Airfoil</p> <p>BT1: Flexible wing</p> <p>BT2: Wings (Flight)</p> | <p>Query BT Flexible wing. Is an airfoil part of all wings?</p> <p>What is the difference between a wing</p>     | <p><b>1.NASA Definition</b></p> <p><a href="http://www.grc.nasa.gov/WWW/K-12/aerosim/Manual/fsim001n.htm">http://www.grc.nasa.gov/WWW/K-12/aerosim/Manual/fsim001n.htm</a></p>  | <p>Airfoil</p> <p>BT: Wings (Flight)</p> <p>NT: Flexible wings</p> |

| No. | Subject term  | CC comment   | JPC comment  | Outcome   |
|-----|---|--|--|---|
|     | BT1: Rigid wing<br>BT2: Wings (Flight)                  | and that which is flexible?<br><br><b>CC comment</b><br>Agree with comments and revised reference structure.   | <b>airfoil</b> A streamlined surface designed in such a way that air flowing around it produces useful motion, (lift) The cross section of an airplane <i>wing</i> is an airfoil. Additional Reference:<br><i>Mechanics of Flight</i> , Kermode, A.C., Pitman and Sons London.<br><br>2. Yes airfoil part of all wings. (Sails and helicopter rotor blades are also wings)<br><br>3. A wing can be rigid or flexible, according to its construction. An example of a flexible wing is a parachute and some Hanggliders<br><b>Action</b><br>Rigid Wings and Flexible wings NT to Airfoil        | Rigid wings   |
| 93. | Airspeed<br>BT1: Flight<br>BT2: Locomotion<br>RT: Speed | LCSH has BT Speed rather than a RT as shown. Seek further information from JPC as to this relationship.<br><br><b>CC comment</b><br>Agree with comments and revised reference structure. A qualifier is not necessary.<br>Revised SN as follows:<br>"Use for works about the distance flown by an aircraft over time relative to the surrounding air and not the Earth's surface."<br><br><b>JPC Amendment</b><br>SN revised as per CC | <b>Action</b><br>Have added SN. Air speed is the distance flown by an aircraft over time relative to the surrounding air not the Earth's surface.<br><b>It is a term specific to flight (aerodynamics)</b><br>Maybe it should have a qualifier Flight or Aerodynamics.<br>Altered RT speed to BT<br>It is a term necessary to understand the flight of a Hang Glider as described in the Learning Object brief. It is not necessarily a term required by relevant Science curricula<br>Reference:<br><a href="http://travel.howstuffworks.com/hang-">http://travel.howstuffworks.com/hang-</a> | Airspeed<br>BT: Aerodynamics<br>Speed<br>SN: Use for works about the distance flown by an aircraft over time relative to the surrounding air and not the Earth's surface. |

| No. | Subject term   | CC comment   | JPC comment  | Outcome  |
|-----|--|--|--|--|
|     |  | <p><b>CC comment</b><br/>Agree</p>   | <p>gliding1.htm<br/>As the hang glider and pilot move through the air, they collide with air molecules. The frictional force caused by these collisions is known as drag, which slows the glider down. The amount of drag is proportional to the airspeed of the hang glider: The faster the glider moves the more drag it creates).</p> |  |
| 94. | <p>Altimeter<br/>BT1: Aeronautical instruments<br/>BT2: Measuring instruments<br/>BT3: Measurement<br/>BT4: Mathematics<br/>RT: Altitude</p> | <p>Altimeters should be a plural.<br/><br/><b>CC comment</b><br/>Agree</p>   | <p><b>Action</b><br/>Term reads Altimeters</p>   | <p>Altimeters<br/>BT: Aeronautical instruments<br/>RT: Altitude</p>  |
| 95. | <p>Balanced forces<br/>BT1: Forces<br/>BT2: Physics</p>  | <p>This may require a SN. Definition could not be sourced from Macquarie.<br/><br/><b>CC comment</b><br/>Agree with revised reference structure. Can the SN be revised as it appears confusing?<br/><br/><b>JPC Amendment</b><br/>SN altered.<br/>"Use for the state of equilibrium when forces of equal magnitude are exerted in opposite directions".<br/><br/><b>CC comment</b><br/>Agree<br/>SN modified as per <i>Specifications</i>.</p> | <p>Balanced and unbalanced forces are terms specifically referred to in curricula.<br/><b>Action</b><br/>SN added<br/>RT added<br/>Laws of motion</p>  | <p>Balanced forces<br/>BT: Forces<br/>RT: Laws of motion<br/>SN: Use for resources on the state of equilibrium when forces of equal magnitude are exerted in opposite directions</p> |
| 96. | <p>Cables<br/>BT1: Materials<br/>BT2: Technology</p>   | <p>Tenuous link with Materials. Could establish Fastenings which could be linked with Nails, etc as NT. Fasteners could be a NT of Joints, as in</p>   | <p>Removed the subject term.. Had used it in the sense of hang glider where cable used to connect the controls and forms a brace. (not a fastening.)</p>   | <p>Removed.</p>  |

| No. | Subject term                                | CC comment  | JPC comment   | Outcome                               |
|-----|---|---|---|---------------------------------------|
|     |   | <p>engineering with a BT to Engineering. The above proposal has been modelled on LCSH.</p> <p><b>CC comment</b><br/>Agree</p>   | <p>The essence of the Learning Object would probably be in relation to the explanation of forces and motion rather than the construction of hang glider. Cable has so many connotations, electrical cable etc</p>   |                                       |
| 97. | Convergence lifting<br>BT1: Meteorology     | <p>Macquarie has Convergence. Would this be acceptable?<br/>Does this relate to air flows and air currents?</p> <p><b>CC comment</b><br/>Agree with JPC comments and revised reference structure.</p> | <p>Feel term should be retained in its entirety. Should not be considered a compound term. Is a meteorological term, however could be altered to frontal lifting. (Commonwealth Bureau of Meteorology use convergence lifting) References below.<br/><i>Commonwealth Bureau of Meteorology</i><br/><a href="http://www.bom.gov.au/info/weathmap/rairfine.htm">http://www.bom.gov.au/info/weathmap/rairfine.htm</a><br/><b>Convergence lifting</b> which occurs when more air flows into an area at low levels than flows out, leading to forced rising of large air masses. Convergence is often associated with wave-like disturbances in tropical easterlies and may also occur with broad tropical air masses flowing to the south. Given sufficient atmospheric moisture and instability, it may cause large cloud clusters and rain.<br/><u>Convergence</u> or <u>frontal lifting</u> takes place when two <u>masses of air</u> come together. In most cases, the two air masses have different temperature and moisture characteristics<br/>(<a href="http://www.physicalgeography.net/fundamentals/8e.html">http://www.physicalgeography.net/fundamentals/8e.html</a>)<br/><b>Action</b> BT Air masses</p> | Convergence lifting<br>BT: Air masses |
| 98. | Couples (Aerodynamics)<br>BT1: Aerodynamics | Remove qualifier. SN will need to be established as definition is not in  | <b>Action</b><br>SN added   | Couples<br>BT: Aerodynamics           |

| No. | Subject term | CC comment  | JPC comment   | Outcome  |
|-----|--------------|---|---|--|
|     |              | <p>Macquarie.</p> <p><b>CC comment</b><br/>Agree with explanation from JPC.<br/>Revised SN to read:<br/>"Use for resources about two equal and opposite forces acting parallel to each other but distance separated."</p> <p><b>JPC Amendment</b><br/>SN Revised as per CC</p> <p><b>CC comment</b><br/>Agree</p> |  <p>Qualifier removed<br/>(Qualifier was added because of couples –relationship confusion).<br/>See explanation below</p> <p><b>The four forces.</b> When a well trimmed aircraft is cruising (i.e. flying at a constant speed and maintaining a constant heading and a constant altitude) in non-turbulent air, there are two sets, or <u>couples</u>, of basic forces acting on it. The two forces in each couple are equal and opposite to each other otherwise the aircraft would not continue to fly straight and level at a constant speed, i.e. the aircraft is in a state of <b>equilibrium</b> where the forces balance each other out so, that there is no change in motion.</p> <p>The couple that acts vertically is the <b>lift</b>, generated by the energy of the airflow over the wings and acting upward, and the force due to gravity – the <b>weight</b> – acting downward, so, being equal and opposite, the lifting force being generated must exactly match the total weight of the aircraft. Although Hang glider not necessarily</p> | <p>SN: Use for resources about two equal and opposite forces acting parallel to each other but distance separated.</p> |

| No.  | Subject term  | CC comment   | JPC comment   | Outcome  |
|------|---|--|---|--|
|      |   |  | motorised, same flight principles apply. This is possibly a more sophisticated term than is necessary. The main aim for students would be to understand the lift thrust drag weight relationship. |  |
| 99.  | Drag (Aerodynamics)<br>BT1: Forces<br>BT2: Physics                    | Remove qualifier.<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Qualifier removed  | Drag<br>BT: Forces   |
| 100. | Fabric<br>BT1: Materials<br>BT2: Technology<br>NT1: Dacron            | ScOT has Fabric as plural. Dacron is a synthetic textile. Perhaps consider establishing subject term for synthetic fibres under Fabrics or Textiles.<br><br><b>CC comment</b><br>Agree with revised reference structure. | <b>Action</b><br>Altered to Fabrics<br>Have created subject term synthetic fibres under textiles.<br>Dacron and Nylon NT  | Fabrics<br>BT: Materials<br>BT: Textiles<br>NT: Canvas<br>NT: Dacron<br>NT: Felt<br>NT: Linen<br>NT: Nylon<br>RT: Clothing<br>RT: Textile crafts<br>RT: Textile design<br>RT: Textile industry |
| 101. | Fibres (Materials)<br>BT1: Materials<br>BT2: Technology<br>NT1: Nylon | Consider establishing Nylon as NT under new subject term for synthetic fabrics which is linked to Fabrics or Textiles.<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>See above  | Fibres (Materials)<br>BT: Materials  |
| 102. | Flexible wing<br>BT1: Wings (Flight)<br>NT1: Airfoil                  | See comments under Airfoils.   | As per Airfoil explanation  |  |
| 103. | Flight<br>BT1: Locomotion<br>NT1: Airspeed                            | Query relationship of Airspeed and Flight. Appear to be different concepts. Should they be RT?   | Agree should be related to Aerodynamics<br><b>Action</b> BT Aerodynamics  | Flight<br>SN Use for resources on the general nature of Flight. For resources  |



| No.  | Subject term   | CC comment   | JPC comment   | Outcome  |
|------|--|--|---|--|
|      | NT1: Cross country flight  | <b>CC comment</b><br>Agree<br>Combined with existing ScOT subject term.  |   | on the science, technology or art of flight use Aeronautics.<br>UF Flying<br>BT Locomotion<br>NT Wings (Flight)<br>NT Cross country flight<br>RT Aeronautics |
| 104. | Gliding and soaring<br>USE: Hang gliding   | Gliding and soaring could be split into two USE subject terms?<br><br><b>CC comment</b><br>Agree. No further action.   | Are part of the one action hang gliding. Gliding is the descent motion and soaring the ascent motion. | Gliding and soaring<br>USE: Hang gliding   |
| 105. | Harness (safety equipment)<br>BT1: Wings(Flight)<br>SN: Use for the measure of efficiency of a wing.       | Wrong reference structure?<br><br><b>CC comment</b><br>Agree   | Sorry an obvious one.<br><b>Action</b><br>Deleted qualifier and BT to safety equipment.               | Harness<br>BT: Safety equipment  |
| 106. | Interviewing<br>UF: Used for the techniques of conducting an interview<br>BT1: Life Skills<br>RT: Research | Remove SN as definition can be sourced from Macquarie.<br><br><b>CC comment</b><br>Agree   | <b>Action</b><br>UF removed   | Interviewing<br>BT: Life skills<br>RT: Research  |
| 107. | Laws of motion<br>RT: Newton,Isaac,Sir   | Remove RT. There are no proper names to be included in ScOT. This is a recent decision and will require some clarification between CC and JPC.<br><br><b>CC comment</b><br>Agree | <b>Action</b><br>Removed in accordance with updated ScOT guidelines                                   | Laws of motion<br>RT: Balanced forces<br>Unbalanced forces   |
| 108. | Lift/Drag Ratio<br>BT1: Wings (Flight)<br>SN: Use for the measure of efficiency of a wing.                 | Agree with subject term however is there an alternative form to describe this concept?<br><br><b>CC comment</b><br>Agree<br>Changed SN in accordance with                        | It is a principle of the science of flight.   | Lift/Drag Ratio<br>BT: Wings (Flight)<br>SN: Use for resources about the measure of efficiency of a wing.  |

| No.  | Subject term   | CC comment  | JPC comment  | Outcome   |
|------|--|---|--|---|
|      |  | <i>Specifications.</i>  |  |   |
| 109. | Meteorology<br>NT1: Air currents<br>NT1: Air density<br>NT1: Air masses<br>NT2: Jet streams<br>NT1: Convergence lifting<br>NT1: Micrometeorology<br>NT2: Ridge lift<br>NT2: Thermals (Meteorology)<br>NT1: Weather<br>NT2: Orographic ascent<br>NT2: Winds<br>NT3: Katabatic winds | Can these NTs under Meteorology be also placed elsewhere?<br><br><b>CC comment</b><br>Agree with revised reference structure. | <b>Action</b><br>Air Density BT Meteorology removed<br>Jet Stream BT Meteorology removed.<br>Altered BT to Winds RT Air masses<br><br><b>Jet stream formation</b><br>The term "jet stream" is often used to describe the general flow of upper atmospheric winds. But it has a specific meaning of upper atmospheric winds blowing faster than 57 mph. Jet streams play a key role in the weather by steering storms and also helping determine where storms form. | Meteorology<br>BT: Earth sciences<br>BT: Physical geography<br>NT: Air<br>NT: Auroras<br>NT: Lightning<br>NT: Seasons<br>NT: Sunspots<br>NT: Weather<br>NT: Weather control<br>NT: Weather forecasting<br>NT: Weather stations<br>NT: Air currents<br>NT: Air masses<br>NT: Micrometeorology<br>RT: Atmosphere (Earth)<br>RT: Climate<br>RT: El Nino<br>RT: Meteorological instruments<br>RT: Meteorological optics<br>RT: Meteorologists<br>RT: Water<br>RT: Weather balloons<br>RT: Weather maps<br>RT: Weather ships |
| 110. | Mountains<br>BT1: Landforms<br>BT2: Physical geography<br>RT: Orographic ascent  | Query RT. What does this mean?<br><b>CC comment</b><br>Agree  | Action removed Mountains as RT of orographic ascent (uplift)   | Mountains<br>BT: Landforms<br>NT: Volcanoes   |

| No.  | Subject term  | CC comment   | JPC comment  | Outcome  |
|------|---|--|--|--|
| 111. | Newton, Isaac, Sir<br>BT1: Scientists<br>BT2: Occupations<br>RT: Laws of motion | Remove   | Action removed   | Removed  |
| 112. | Orographic ascent<br>BT1: Weather<br>BT2: Meteorology<br>RT: Mountains          | See also comments under Mountains.<br>What does this subject term mean?<br><br><b>CC comment</b><br>Agree            | Orographic uplift<br>Uplift of an air mass because of a topographic obstruction. (usually mountains) Uplift also causes the cooling of the air mass. If enough cooling occurs condensation can occur and form into orographic precipitation.<br><a href="http://www.physicalgeography.net/physgeoglos/o.html">http://www.physicalgeography.net/physgeoglos/o.html</a><br>Physical Geography Dictionary of terms<br><br><b>Action</b><br>Modified term to Orographic uplift.<br>Removed RT Mountains<br>Added BT Air masses | Orographic uplift<br>BT: Air masses                          |
| 113. | Parachute<br>RT: Reserve parachute  | Plural. See below.<br>Query RT – this should be a NT, i.e. as a type of parachute.<br><br><b>CC comment</b><br>Agree | <b>Action</b><br>Term modified to plural.<br>RT removed<br>NT Reserve parachute  | Parachutes<br>BT: Safety equipment<br>NT: Reserve parachutes |
| 114. | Parachutes<br>BT1: Safety equipment<br>BT2: Safety                              |  |  |  |
| 115. | Preflight inspection<br>BT1: Safety<br>RT: Aeronautics                          | <b>CC comment</b><br>Agree   | <b>Action</b><br>RT Aeronautics removed.<br>RT Aircraft added  | Preflight inspections<br>BT: Safety<br>RT: Aircraft          |
| 116. | Rogallo Francis<br>BT1: Scientists<br>BT2: Occupations<br>RT: Rogallo Wing      | Remove from ScOT<br><br><b>CC comment</b><br>Agree   | Action removed   | Removed.   |


| No.  | Subject term   | CC comment  | JPC comment   | Outcome                            |
|------|--|---|---|------------------------------------|
| 117. | Rogallo Wing<br>BT1: Wings (Flight)<br>RT: Rogallo Francis   | Should this have a NT Airfoil as it appears inconsistent with other wing subject terms?<br>Remove RT.<br><br><b>CC comment</b><br>Agree   | RT removed  | Rogallo Wing<br>BT: Wings (Flight) |
| 118. | Stall (Aerodynamics)<br>BT1: Angle of attack<br>BT2: Lift (Aerodynamics)<br>BT3: Forces<br>BT4: Physics<br>SN: Used in aerodynamics for exceeding the critical angle of attack | Remove qualifier and SN as can be sourced from Macquarie.<br><br><b>CC comment</b><br>Agree<br>SN removed. Definition can be sourced in Macquarie.  | <b>Action</b><br>Qualifier removed  | Stall<br>BT: Angle of attack       |
| 119. | Thermals (Meteorology)<br>BT1: Micrometeorology<br>BT2: Meteorology  | Remove qualifier<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Qualifier removed.<br>Included to distinguish from the term thermals in relation to the specialist hiking/bushwalking clothing | Thermals<br>BT: Micrometeorology   |
| 120. | Thrust (Aerodynamics)<br>BT1: Forces<br>BT2: Physics   | Remove qualifier<br><br><b>CC comment</b><br>Agree  | <b>Action</b><br>Qualifier removed  | Thrust<br>BT: Forces               |
| 121. | Traffic<br>NT1: Air traffic control  | Is this NT correct? Should this be a RT><br><br><b>CC comment</b><br>Agree. Adopt SCIS reference structure.<br><br><b>JPC Amendment</b><br>Revised to SCIS reference structure<br>Air Traffic Control<br>BT Airports<br>Leave RT Traffic??<br><br><b>CC comment</b> | ScOT has BT Traffic for Air Traffic control and RT Airports.<br>Consideration could be given to this relationship.                              | Traffic<br>NT: Air traffic control |

| No.  | Subject term   | CC comment  | JPC comment   | Outcome   |
|------|--|---|---|---|
|      |  | Agree and retain RT Traffic.  |   |   |
| 122. | Unbalanced forces<br>BT1: Forces<br>BT2: Physics   | See comment under Balanced forces.<br>Perhaps a reciprocal SN could be established.<br><br><b>CC comment</b><br>Agree<br><br><b>JPC Amendment</b><br><b>SN revised.</b><br>"Use for the unbalanced state when forces acting on an object are not equal in magnitude and opposite in direction".<br><br><b>CC comment</b><br>Agree<br>SN revised as per amended <i>Specifications.</i> | Action SN added<br>Added RT Laws of Motion  | Unbalanced forces<br>BT: Forces<br>RT: Laws of motion<br>SN: Use for resources about the unbalanced state when forces acting on an object are not equal in magnitude and opposite in direction. |
| 123. | Used for the techniques of conducting an interview<br>USE: Interviewing  | Query this.<br><br><b>CC comment</b><br>Agree   | Relates to the brief on the Learning Object. An interview with a Hang Glider. It is also a valid research technique (to collect Primary sources) and hence part of the curricula. | Removed   |
| 124. | Wings (Flight)<br>NT1: Flexible wing<br>NT2: Airfoil<br>NT1: Lift/Drag Ratio<br>NT1: Rigid wing<br>NT2: Airfoil<br>NT1: Rogallo Wing | Compare with subject term below.<br><br><b>CC comment</b><br>Agree  | <b>Action.</b><br>Compared.<br>Term below deleted.  | Wings (Flight)<br>NT: Airfoil<br>Flexible wings<br>Lift/Drag Ratio<br>Rigid wings<br>Rogallo Wing<br>Wing span  |
| 125. | Wings(Flight)<br>NT1: Harness (safety equipment)   | What is the relationship with the NT?<br>Remove qualifier of NT.<br><br><b>CC comment</b><br>Agree  | Action<br>Qualifier removed<br>Removed relationship with Wings should have been BT safety equipment   | Removed   |

## 7.4 Quality assurance of subject terms relating to LO “Travel through time”, “Map of Australasian Plate Movements” and “Geological modelling”

| No.  | Subject term                                    | CC comment   | JPC comment   | Outcome  |
|------|---|--|---|--|
| 126. | Algae<br>UF: Marine algae<br>BT: Aquatic plants | ScOT has BT Protists which is a NT under Biology. Happy to revise reference structure following comments from JPC.<br>Protists could be made a UF perhaps?<br><br><b>CC comment</b><br>Agree   | Any of the eukaryotic, unicellular organisms of the former kingdom Protista, which includes protozoans, slime molds, and certain algae. The protists now belong to the kingdom Protoctista, a new classification in most modern taxonomic systems.<br>This is the definition for “protists” – the documents refer to Algae and Protozoans so current structure covers that.<br><b>Action:</b> Term deleted and existing structure remains | Removed  |
| 127. | Aquatic plants<br>BT: Plants<br>NT: Algae       | See comments above.<br><br><b>CC comment</b><br>Agree  | Note: in true definition of the term “algae” is not a plant<br><br><b>Action:</b> Term deleted  | Removed  |
| 128. | Atmosphere<br>BT: Earth sciences                | ScOT has Atmosphere (Earth) which is a NT under Earth. See reference structure in ScOT for Earth however CC is happy to revise following comments from JPC as this new reference structure does make sense. Could Earth and Earth sciences both be BT to Atmosphere?<br><b>CC comment</b><br>Agree | Trying to maintain curriculum link which refers to “earth science”.<br><br><b>Action:</b> BT Earth added – term modified  | Atmosphere (Earth)<br>SN: Use for resources on the body of air surrounding the Earth. For resources on air as an element and its chemical and physical properties use Air.<br>BT: Earth<br>BT: Earth sciences<br>NT: Biosphere<br>NT: Ionosphere<br>NT: Sky<br>NT: Stratosphere<br>NT: Troposphere |

| No.  | Subject term                                  | CC comment   | JPC comment   | Outcome   |
|------|---|--|---|---|
|      |   |  |   | RT: Air<br>RT: Air pressure<br>RT: Meteorology<br>RT: Air currents<br>RT: Air density<br>RT: Air masses |
| 129. | Avalanches<br>BT: Earth movements             | Link to Snow as RT. See reference structure for Avalanches in LCSH. Could this also be linked to Natural disasters as well?<br><br><b>CC comment</b><br>Agree            | <b>Agree</b><br>Action: RT Snow, Natural disasters  | Avalanches<br>BT: Earth movements<br>RT: Natural disasters<br>Snow                                      |
| 130. | Biology<br>NT: Photosynthesis                 | Compare reference structure in ScOT as there are differences. Happy to accept revised reference structure following comments from JPC.<br><br><b>CC comment</b><br>Agree | <b>Agree</b> – keep current structure Biology – the references for Photosynthesis to change are in the RT   | See entry 10 for full reference structure.  |
| 131. | Chlorophyll<br>RT: Photosynthesis<br>Plankton | This will need a BT if possible.<br><br><b>CC comment</b><br>Agree   | <b>Action:</b> BT Plant physiology  | Chlorophyll<br>RT: Photosynthesis<br>Plankton   |
| 132. | Cinder cones<br>BT: Volcanoes                 | I assume that a cinder cone is a type of volcano?<br><br><b>CC comment</b><br>Agree  | The most “common” landform associated with the formation of a volcano<br><a href="http://library.thinkquest.org/17457/volcanoes/types.cinder.php">http://library.thinkquest.org/17457/volcanoes/types.cinder.php</a><br>Targeted words and concepts directly from the curriculum documents for inclusion. | Cinder cones<br>BT: Volcanoes   |
| 133. | Climate<br>BT: Earth sciences                 | ScOT has BT Environment. Refer to ScOT reference structure. Could Earth sciences and Environment both be   | <b>Action:</b> BT added   | Climate<br>BT: Earth sciences<br>Environment  |

| No.  | Subject term                         | CC comment   | JPC comment   | Outcome   |
|------|--------------------------------------|--|---|---|
|      |                                      | added as a BT.<br><b>CC comment</b><br>Agree   |   |   |
| 134. | Composite cones<br>BT: Volcanoes     | What is the difference between a composite cone and a composite volcano?<br><br><b>CC comment</b><br>Agree | Both terms appeared in documents<br><br><i>Composite cones (stratovolcanos)</i><br><br><br>©M.L. Bevier<br>Mt. Lassen, a Cascade arc composite volcano, that last erupted in 1914-1917.  | Composite cones<br>USE: Composite volcanoes<br><br>Composite volcanoes<br>UF: Composite cones<br>Stratovolcanoes<br>BT: Volcanoes |
| 135. | Composite volcanoes<br>BT: Volcanoes | See comment above.<br><br><b>CC comment</b><br>Agree   | Note the comment from “Ask a vulcanologist”<br>Are a composite cone and a stratacone volcano the same thing? Yes, stratovolcanoes and composite cones are two names for the same kind of volcanoes! Somehow, two different names have come into general use - both are OK to use.<br>CC Comments are therefore <b>correct</b> . Only need one of these terms and then a use for.<br>JPC suggest “composite volcano” as preferred term and include “use for”<br>Action: USE FOR Composite cones, Stratovolcanoes | Composite cones<br>USE: Composite volcanoes<br><br>Composite volcanoes<br>UF: Composite cones<br>Stratovolcanoes<br>BT: Volcanoes |



| No.  | Subject term  | CC comment  | JPC comment  | Outcome   |
|------|---|---|--|---|
| 136. | Continental drift<br>BT: Continents<br>NT: Pangaea<br>RT: Plate tectonics     | ScOT has RT Continents and BT Tectonics.<br><br><b>CC comment</b><br>Agree. CC will revise to Plate tectonics and add UF Tectonics. | Definition of Plate Tectonics (used with a sing. verb) A theory that explains the global distribution of geological phenomena such as seismicity, volcanism, continental drift, and mountain building in terms of the formation, destruction, movement, and interaction of the earth's lithospheric plates. (used with a sing. or pl. verb) The dynamics of plate movement. Definition of Tectonics: The study of the earth's structural features. The art or science of construction, especially of large buildings. These objects (and curriculum discussions) refer to "plate tectonics"<br><br><b>Suggestion:</b> CC revise term "tectonics" to "Plate tectonics" and include USE FOR About the structural relationships – can see the logic of reversing relationships – the key validity IS drift AND plate tectonics<br><b>Action:</b> BT Plate tectonics RT Continents | Continental drift<br>BT: Plate tectonics<br>NT: Pangaea<br>RT: Continents |
| 137. | Continental plates<br>BT: Continents<br>RT: Oceanic plates<br>Plate tectonics |   |  |   |
| 138. | Craters<br>BT: Volcanoes  | These are parts of the volcano like cones?<br><br><b>CC comment</b><br>Agree  | A significant landform feature – the "top" of the volcano – the depression left after the eruption.  | Craters<br>BT: Volcanoes  |
| 139. | Earth movements   | ScOT has BT Natural disasters to Earth  | Are all Earth movements natural  | Earth movements   |

| No.  | Subject term  | CC comment   | JPC comment  | Outcome   |
|------|---|--|--|---|
|      | BT: Earth<br>Geomorphology<br>Geophysics<br>NT: Avalanches<br>Earthquakes<br>Landslides<br>Seismic waves<br>RT: Faults<br>Folds<br>Natural disasters<br>Rifts | movements.<br><br><b>CC comment</b><br>Agree. No further action.   | disasters? I don't think so...<br><br><b>CC to change at your discretion.</b>  | BT: Earth<br>Geomorphology<br>Geophysics<br>NT: Avalanches<br>Earthquakes<br>Landslides<br>Seismic waves<br>RT: Faults<br>Folds<br>Natural disasters<br>Rifts |
| 140. | Exhibits<br>RT: Museums<br>Specimens  | ScOT has BT Nonprint media and Sales promotion. Agree with reference structure from JPC.<br><br><b>CC comment</b><br>Agree | Needed to make link between "exhibits, museums and specimens" – saw ScOT reference to BT nonprint media. Perhaps consider Library of Congress terminology of "exhibitions". No action taken – BT can remain with existing suggestion | Exhibits<br>RT: Museums<br>Specimens  |
| 141. | Floods<br>BT: Natural disasters   | ScOT also has BT Weather.<br><br><b>CC comment</b><br>Agree  | <b>Agree</b><br>Action: BT added   | Floods<br>BT: Natural disasters<br>Weather  |
| 142. | Fossils<br>BT: Palaeontology<br>RT: Sedimentary rocks<br>Specimens  | ScOT has RT Stratigraphic geology.<br><br><b>CC comment</b><br>Agree   | "The study of the age of sedimentary rocks".....<br><br><b>Query:</b> should there also be a RT from Stratigraphic geology to Sedimentary rocks<br><br><b>Action:</b> RT added   | Fossils<br>BT: Palaeontology<br>RT: Sedimentary rocks<br>Specimens<br>Stratigraphic geology<br>Diprotodons<br>Prehistoric animals                             |
| 143. | Future<br>NT: Time travel   | ScOT has BT Time (Measurement)<br><br><b>CC comment</b><br>Agree   | Agree<br><br><b>Action:</b> BT added   | Future<br>BT: Time (Measurement)<br>NT: Time travel   |
| 144. | Geologists<br>BT: Occupations   | Remove NT.   | <b>Action:</b> NT removed  | Geologists<br>BT: Occupations   |

| No.  | Subject term  | CC comment   | JPC comment   | Outcome  |
|------|---|--|---|--|
|      | NT: Wegener, Alfred<br>RT: Geology                      | <b>CC comment</b><br>Agree   |   | RT: Geology  |
| 145. | Magma<br>UF: Lava<br>BT: Volcanoes<br>RT: Igneous rocks | Is lava more common? Happy to receive further advice from JPC.<br>Is there scope for concepts like lava flows?<br><br><b>CC comment</b><br>Good points. Agree with SN. Correct “desposited” to “deposited” in second SN.<br>Further consideration resulted in no SN being established. | This is an interesting one.<br>There really should <b>be “two”</b> – basically “lava” is what happens above the surface of the volcano.....“magma” happens within the volcano.<br><br><b>Suggest</b> that “lava” is added as a NT under volcanic eruptions – then can add NT under lava for “lava flows”<br>This builds in scope for future development for adding other materials as required. See <a href="http://library.thinkquest.org/17457/volcanoes/erupt.php">http://library.thinkquest.org/17457/volcanoes/erupt.php</a><br>(Have selected the ThinkQuest references to demonstrate the simplistic links that are made at basic theory level)<br><br>In addition – types of volcanic eruptions can be added as required – the curriculum samples mention eruptions under ocean – but do not use terminology at the P – 10 level.<br><a href="http://library.thinkquest.org/17457/volcanoes/erupts.php">http://library.thinkquest.org/17457/volcanoes/erupts.php</a><br><b>Action:</b> NT Lava added to Volcanic eruptions<br><b>Action:</b> NT Lava flows added to Lava<br><b>Query:</b> Scope note will be needed to differentiate between discussions of magma and lava.<br><b>Suggest:</b> The following scope notes<br><i>Magma: Use for works on the molten</i> | Magma<br>BT: Volcanoes<br>RT: Igneous rocks<br>Lava<br><br>Lava<br>BT: Volcanic eruptions<br>NT: Lava flows<br>RT Magama |

| No.  | Subject term  | CC comment  | JPC comment  | Outcome   |
|------|---|---|--|---|
|      |   |   | <p><i>rock material under the earth's crust. Works dealing with molten rock deposited on the surface of the earth by a volcanic eruption are under Lava. Lava: Use for works on molten rock material desposited on the surface of the earth by volcanic eruption. Works dealing with molten rock material under the earth's crust are under Magma.</i></p> |   |
| 146. | Measurement<br>NT: Scales   | ScOT has Units of measurement as a NT under Measurement. Would Scales fit under this? Happy to receive further advice from JPC.<br><br><b>CC comment</b><br>Agree | Agree<br><br><b>Action:</b> Reference structure changed  | Measurement<br>UF: Measuring<br>UF: Mensuration<br>BT: Mathematics<br>NT: Area<br>NT: Distances<br>NT: Length<br>NT: Measuring instruments<br>NT: Metric system<br>NT: Ratings<br>NT: Units of measurement<br>NT: Altitude<br>RT: Data<br>RT: Hydraulic measurements<br>RT: Standards |
| 147. | Mountains<br>BT: Physical geography<br>NT: Volcanoes              | ScOT has Mountains as a NT under Landforms.<br><br><b>CC comment</b><br>Agree   | Agree<br><br><b>Action:</b> reference structure changed  | Mountains<br>BT: Landforms<br>NT: Volcanoes   |
| 148. | Scales<br>BT: Measurement<br>NT: Beaufort scale<br>Mercalli scale | A qualifier will need to be added here. See ScOT. Is a scale a unit of measurement? See ScOT reference structure for Measurement.                                 | Qualifier added to differentiate for music, equipment and measurement<br><b>Action:</b> SN revised<br><b>Action:</b> qualifier added   | Scales (Measurement)<br>BT: Units of measurement<br>NT: Beaufort scale<br>Mercalli scale  |

| No.  | Subject term   | CC comment   | JPC comment   | Outcome  |
|------|--|--|---|--|
|      | Richter scale<br>SN: Use this word for different measurement scales e.g. Beaufort Scale, Mercalli Scale. | SN revised as follows:<br>"Use for resources on different measurement scales, e.g. Beaufort Scale. Use a more specific subject term if possible."<br><br><b>CC comment</b><br>Agree. I have removed all instances of SN which state "Use a more specific subject term if possible" following change of policy late last year. It has taken some time to update | <b>Query:</b> what does the Scope Note instruction "Use a more specific subject term if possible" actually mean?                              | Richter scale<br>SN: Use for resources on different measurement scales, e.g. Beaufort Scale. |
| 149. | Tectonics, Plate<br>USE: Plate tectonics   | Remove inverted USE.<br><br><b>CC comment</b><br>Agree   | <b>Action:</b> removed  | Removed  |
| 150. | The Theory of Plate Tectonics<br>USE: Plate tectonics  | Seems an odd USE reference. Recommend that this is removed.<br><br><b>CC comment</b><br>Agree  | Action: removed   | Removed  |
| 151. | Tsunamis<br>BT: Natural disasters<br>RT: Earthquakes   | Link also to Ocean (Waves) – an existing ScOT term as a NT.<br><br><b>CC comment</b><br>Agree  | I couldn't find this – must be an "updated" term. I read this as Tsunamis is NT of Ocean (Waves)<br><br><b>Action:</b> added BT Ocean (Waves) | Tsunamis<br>BT: Natural disasters<br>Ocean (Waves)<br>RT: Earthquakes                        |
| 152. | Water  | Missing reference structure.<br><br><b>CC comment</b><br>Agree   | Action: removed   | Removed  |
| 153. | Wegener, Alfred<br>BT: Geologists<br>Meteorologists  | Remove<br><br><b>CC comment</b><br>Agree   | Action: removed   | Removed  |

## 7.5 Quality assurance of subject terms relating to LO “Creature Features”

| No.  | Subject term   | CC comment  | JPC comment   | Outcome   |
|------|--|---|---|---|
| 154. | Aboreals<br>BT1: Animal behaviour<br>RT: Birds   | A spelling error? Should this be Arboreals?<br>Yes, should have checked the dictionary.<br><br><b>CC comment</b><br>Agree   | <b>JPC action</b><br>Spelling error rectified   | Arboreals<br>BT: Animal behaviour<br>RT: Birds  |
| 155. | Animal defences<br>BT1: Animal behaviour<br>NT1: Venom   | Could Venom also be related to Toxins? ScOT only has Toxic waste at present. Could this also be linked to Poisonous animals (ScOT already has Poisonous plants)<br><br><b>CC comment</b><br>LCSH has Toxins with a BT to Poisons. Agree with reference structure provided by JPC.   | <b>JPC action</b><br>Toxin established as term<br>Venom BT Toxins<br>Venom RT Poisonous animals<br>Venom RT Animal defences<br>SN to Toxins, not sure of suitable BT for toxins. Should poisons be established as a term? | Animal defences<br>BT: Animal behaviour<br>NT: Camouflage<br>RT: Venom  |
| 156. | Animal sounds<br>BT1: Animal communication<br>BT2: Animal behaviour<br>NT1: Trills (Animals)   | Should Trills be either in the singular or Trilling? CC would prefer Trilling. Qualifier will need to be removed.<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>Altered to Trilling.<br>Qualifier removed.   | Animal sounds<br>BT: Animal communication<br>NT: Trilling<br>RT: Biological acoustics<br>Sounds   |
| 157. | Animals<br>BT1: Biology<br>NT1: Animal adaptations<br>NT1: Feral animals<br>NT1: Insectivores<br>NT1: Invertebrates<br>NT2: Spiders<br>NT3: Huntsman spiders<br>NT4: Badge huntsman spiders<br>NT4: Brown huntsman spiders<br>NT3: Spiderlings | Could we establish Poisonous animals, as Feral animals have already been established? Various animals could then be linked as appropriate. See reference structure under LCSH. There is a reference structure conflict between Mammals and Marsupials. Both appear as NT under Vertebrates but Marsupials also appears as a NT under Mammals. | <b>JPC Action</b><br>Poisonous animals established<br>Marsupials BT Mammals   | Animals<br>SN: Use for resources of a general, descriptive nature on animals. For resources of a technical or classificatory nature on animals use Zoology.<br>UF: Beasts<br>UF: Fauna<br>UF: Living things |

| No.  | Subject term   | CC comment  | JPC comment  | Outcome   |
|------|--|---|--|---|
|      | NT3: Spiders webs<br>NT1: Vertebrates<br>NT2: Amphibians<br>NT3: Frogs<br>NT4: Tadpoles<br>NT4: Tree frogs<br>NT5: Brown tree frogs<br>NT5: Dainty green tree frogs<br>NT5: Emerald spotted tree frogs<br>NT5: Green tree frogs<br>NT5: Red tree frogs<br>NT2: Mammals<br>NT3: Marsupials<br>NT4: Wombats<br>NT3: Placentals<br>NT4: Dogs<br>NT5: Dingoes<br>NT2: Marsupials<br>NT3: Wombats | <b>CC comment</b><br>Agree  |  | UF: Wild animals<br>UF: Wildlife<br>UF: Zoo animals<br>BT: Biology<br>NT: Animal behaviour<br>NT: Animal welfare<br>NT: Baby animals<br>NT: Carnivores<br>NT: Cold blooded animals<br>NT: Extinct animals<br>NT: Herbivores<br>NT: Invertebrates<br>NT: Marine animals<br>NT: Omnivores<br>NT: Pets<br>NT: Prehistoric animals<br>NT: Vertebrates<br>NT: Warm blooded animals<br>NT: Animal adaptations<br>NT: Nocturnal animals<br>NT: Megafauna<br>NT: Canines<br>NT: Feral animals<br>NT: Insectivores<br>NT: Poisonous animals<br>RT: Animal husbandry<br>RT: Veterinary medicine |
| 158. | Animals behaviour<br>NT1: Herds  | Would prefer singular form of Animals.<br>Should BT Pheromones be also linked | <b>JPC Action</b><br>Animal behaviour (singular established) | Animal behaviour<br>NT: Reproductive behaviour  |

| No.  | Subject term   | CC comment  | JPC comment   | Outcome   |
|------|--|---|---|---|
|      | NT1: Pheromones  | to Animal communication (refer to Macquarie definition)<br><br><b>CC comment</b><br>Agree   | Pheromones BT Animal communication<br>RT Animal behaviour   | Animal communication<br>Animal defences<br>Arboreals<br>Biological acoustics<br>Herds<br>Packs<br>Predator-prey relationships<br>RT: Pheromones   |
| 159. | Animals defences<br>NT1: Camouflage  | Would prefer singular form of Animals.<br><br><b>CC comment</b><br>Agree  | <b>JPC Action</b><br>Error rectified.   | Animal defences<br>UF: Defence mechanisms of animals<br>UF: Self defence in animals<br>UF: Self protection in animals<br>BT: Animal behaviour<br>NT: Camouflage<br>NT: Mimicry<br>RT: Venom |
| 160. | Animals sounds<br>RT: Biological acoustics   | Would prefer singular form of Animals.<br>This should be related to Sound or Sounds in ScOT.<br><br><b>CC comment</b><br>Agree  | <b>JPC Action</b><br>Plural established<br>RT Sounds  | Animal sounds<br>BT: Animal communication<br>NT: Trilling<br>RT: Biological acoustics<br>Sounds   |
| 161. | Biological acoustics<br>BT1: Animal behaviour<br>RT: Animals sounds<br>SN: Use for acoustical signals perception by animals. | This should be related to Sound or Sounds in ScOT.<br><br><b>CC comment</b><br>Agree<br>SN revised as per <i>Specifications</i> .   | <b>JPC Action</b><br>RT Sounds established  | Biological acoustics<br>BT: Animal behaviour<br>RT: Animal sounds<br>Sounds<br>SN: Use for resources about acoustical signals perception by animals.  |
| 162. | Birds<br>NT1: Beaks<br>NT1: Birds of prey<br>NT2: Owls<br>NT1: Bower birds<br>NT1: Fledglings                                | Tawny frogmouths could be classified as a bird of prey as they hunt for moths and other insects. However according to advice received there is no definitive answer as to whether they are technically an owl. Could NT Kohunga | <b>JPC Action</b><br>Tawny frogmouths BT Birds of prey.<br>Following references all indicate that Tawny Frogmouths are not classified as owls.<br>1.The Birds of Australia, Simpson K & | Birds<br>BT: Vertebrates<br>NT: Beaks<br>Birds of prey<br>Bower birds<br>Fledglings   |



| No.  | Subject term   | CC comment   | JPC comment   | Outcome   |
|------|--|--|---|---|
|      | NT1: Kohanga<br>NT1: Nests<br>NT1: Plumage<br>NT2: Feathers<br>NT1: Tawny frogmouths<br>RT: Aboreals | be placed as a NT under Nests?<br><br><b>CC comment</b><br>Agree with comments on reference structure in relation to Tawny Frogmouths. One alternative strategy for Kohunga is that it could be made a UF under Nests? | Day. N. Lloyd O'Neil Pty Ltd South Yarra. 1984<br>2. Australian Owls Frogmouths and Nightjars, Morris J & Tracey L., Great Glider Productions, Maleny Queensland. 1993<br>3. Queensland Museum<br><a href="http://www.qmuseum.qld.gov.au/organisation/sections/mammalsbirds/index.asp">http://www.qmuseum.qld.gov.au/organisation/sections/mammalsbirds/index.asp</a><br><i>Tawny Frogmouths. They are nocturnal, so when they sleep in the day they do their best to camouflage themselves. They are not owls and when they call they do so quietly with a gentle but monotonous 'oom-oom-oom-oom'. They eat mostly insects</i><br>Unsure re Kohunga as the term in the NZ syllabus document (page 54) literally means nest. | Kohanga<br>Nests<br>Plumage<br>RT: Nictitating membrane<br>Arboreals    |
| 163. | Blue tongue lizards<br>BT1: Lizards<br>BT2: Reptiles   | Error. Is it blue tongued or tongue?   | See entry 164   |   |
| 164. | Blue tongued lizards<br>NT1: Eastern blue tongued lizards<br>NT1: Pygmy blue-tongue lizards          | Error. Is it blue tongued or tongue?<br><br><b>CC comment</b><br>Agree   | <b>JPC Response</b><br>Brief uses "blue tongue lizard"<br>Following references use "blue <b>tongued</b> lizards"<br>1. Healesville Sanctuary<br><a href="http://www.zoo.org.au/search_results.cfm?zoo_id=2">http://www.zoo.org.au/search_results.cfm?zoo_id=2</a><br>2. Queensland Museum<br><a href="http://www.qmuseum.qld.gov.au/inquiry/leaflets/leaflet0025.pdf">http://www.qmuseum.qld.gov.au/inquiry/leaflets/leaflet0025.pdf</a><br><b>JPC Action</b><br>Used "blue tongued lizard"   | Blue tongued lizards<br>BT: Lizards<br>NT: Eastern blue tongued lizards |

| No.  | Subject term   | CC comment   | JPC comment   | Outcome  |
|------|--|--|---|--|
| 165. | Burrows<br>BT1: Habitats<br>BT2: Environment<br>BT1: Warrens<br>BT2: Habitats<br>BT3: Environment                                | Reference structure error with Habitats which has a BT Environment. Warrens has a BT Habitats and both Warrens and Habitats are BT to Burrows.<br><br><b>CC comment</b><br>Agree | <b>JPC Action</b><br>Burrows BT Warrens   | Burrows<br>BT: Warrens   |
| 166. | Carnivores<br>RT: Insectivores   | BT Animals.<br><br><b>CC comment</b><br>Agree  | <b>JPC action</b><br>BT Animals established   | Carnivores<br>UF: Flesh eating animals<br>UF: Meat eating animals<br>BT: Animals<br>RT: Carnivorous plants<br>RT: Herbivores<br>RT: Omnivores<br>RT: Ekaltadeta<br>RT: Thylacoleo carnifex<br>RT: Insectivores |
| 167. | Computer sciences<br>NT1: Computer simulations   | BT Technology<br><b>CC comment</b><br>Agree  | <b>JPC Action</b><br>BT Technology established  | Computer sciences<br>BT: Technology<br>NT: Computer simulations  |
| 168. | Dingoes<br>BT1: Dogs<br>BT2: Placentals<br>BT3: Mammals<br>BT4: Vertebrates<br>BT5: Animals<br>BT6: Biology<br>RT: Feral animals | Is a dingo a type of dog?<br><br><b>CC comment</b><br>Agree  | <b>JPC Response</b><br>Dingoes considered to be subspecies of Wolves.<br>1. Qld Museum<br><a href="http://www.qmuseum.qld.gov.au/inquiry/leaflets/leaflet0008.pdf">http://www.qmuseum.qld.gov.au/inquiry/leaflets/leaflet0008.pdf</a><br>2. Healesville Sanctuary<br><a href="http://www.zoo.org.au/PDF/HSDingo.pdf">http://www.zoo.org.au/PDF/HSDingo.pdf</a><br><b>JPC Action</b><br>Dingoes BT Wolves<br>Dingoes RT Predator-prey relationships<br>Dingoes RT Feral animals<br>Wolves established as term. | Dingoes<br>BT: Wolves<br>RT: Feral animals<br>Predator-prey relationships  |

| No.  | Subject term   | CC comment  | JPC comment   | Outcome  |
|------|--|---|---|--|
|      |  |   | Wolves BT Canines<br>Canines BT Animals   |  |
| 169. | Dormant  | Reference structure missing.<br><br><b>CC comment</b><br>Agree  | <b>JPC Action</b><br>Removed term   | Removed.   |
| 170. | Endangered animals<br>RT: Frogs  | BT is Endangered species in ScOT.<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>Endangered animals BT Endangered species   | Endangered species<br>BT: Conservation (Environment)<br>NT: Endangered animals                       |
| 171. | Feral animals<br>BT1: Animals<br>BT2: Biology<br>RT: Dingoes   | Add Foxes as RT Feral animals (existing subject term in ScOT).  |   | Feral animals<br>BT: Animals<br>RT: Dingoes<br>Foxes   |
| 172. | Herds<br>BT1: Animals behaviour<br>RT: Packs   | Would Herding be more appropriate?<br>Does the subject term relate to animal herds or the herding of animals?<br><br><b>CC comment</b><br>Agree. No further action. | Term relates to animal herds. Is a common term in elementary and primary information books. Consider as is? Had considered the term animal herds. | Herds<br>BT: Animal behaviour<br>RT: Packs   |
| 173. | Hibernation<br>BT1: Animals adaptations  | <b>CC comment</b><br>Agree  | JPC Action<br>Singular established  | Hibernation<br>BT: Animal adaptations<br>RT: Pineal gland  |
| 174. | Huntsman spiders<br>BT1: Spiders<br>BT2: Arachnids<br>BT2: Invertebrates<br>BT3: Animals<br>BT4: Biology<br>NT1: Badge huntsman spiders<br>NT1: Brown huntsman spiders | Could we simplify to Huntsman, Badge huntsman and Brown huntsman?<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>Have simplified to Huntsman spiders as this is the only one referred to in the brief.  | Huntsman spiders<br>BT: Spiders  |
| 175. | Insectivores<br>BT1: Animals<br>BT2: Biology<br>RT: Carnivores<br>RT: Herbivores   | Change SN to: Use for resources on animals that eat mainly insects.<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>SN Altered.  | Insectivores<br>BT: Animals<br>RT: Carnivores<br>Herbivores<br>SN: Use for resources on animals that |

| No.  | Subject term   | CC comment   | JPC comment  | Outcome  |
|------|--|--|--|--|
|      | SN: Use for animals that eat mainly insects  |  |  | eat mainly insects   |
| 176. | Kohanga<br>BT1: Birds<br>SN: New Zealand Term for Nests  | See comments under Birds.  |  |  |
| 177. | Marsupials<br>BT1: Mammals<br>BT2: Vertebrates<br>BT3: Animals<br>BT4: Biology<br>BT1: Vertebrates<br>BT2: Animals<br>BT3: Biology<br>NT1: Wombats   | Reference structure error with Vertebrates.<br><br><b>CC comment</b><br>Agree  | <b>JPC Action</b><br>Mammals BT Vertebrates<br>Marsupials BT Mammals               | Marsupials<br>BT: Mammals<br>NT: Wombats   |
| 178. | Spiders webs<br>BT1: Spiders<br>BT2: Arachnids<br>BT2: Invertebrates<br>BT3: Animals<br>BT4: Biology<br>RT: Predator-prey relationships              | Prefer Spiders to be in the singular.<br><br><b>CC comment</b><br>Agree  | <b>JPC Response</b><br>Singular established  | Spider webs<br>BT: Spiders<br>RT: Predator-prey relationships  |
| 179. | Stalks (Animals)<br>BT1: Predator-prey relationships<br>BT2: Animal behaviour<br>SN: Use for the action of quietly and secretly following an animal. | Would Stalking be more appropriate?<br>See comments under Herds.<br>Change SN to "Use for resources on the action of quietly and secretly following an animal."<br>Remove qualifier.<br><br><b>CC comment</b><br>Agree | <b>JPC Action</b><br>SN Altered<br>Term modified to Stalking<br>Qualifier removed. | Stalking<br>BT: Predator-prey relationships<br>SN: Use for resources on the action of quietly and secretly following an animal |
| 180. | Sun<br>BT1: Solar system<br>BT2: Universe<br>NT1: Sun rotation<br>NT2: Time  | BT Stars? See reference structure in ScOT.<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>BT Stars added.   | Sun<br>BT: Solar system<br>Stars<br>NT: Sun rotation   |

| No.  | Subject term   | CC comment   | JPC comment   | Outcome   |
|------|--|--|---|---|
|      | NT3: Days<br>NT4: Diurnal<br>NT3: Nights<br>NT4: Nocturnal                                   |  |   |   |
| 181. | Tawny frogmouths<br>BT1: Birds   |  |   |   |
| 182. | Trills (Animals)<br>BT1: Animal sounds<br>BT2: Animal communication<br>BT3: Animal behaviour | Would Trilling be more appropriate?<br>See comments under Herds.<br>Qualifier will need to be removed.<br><br><b>CC comment</b><br>Agree | <b>JPC Action</b><br>Term altered to trilling.<br>Qualifier removed | Trilling<br>BT: Animal sounds                                   |
| 183. | Venom<br>BT1: Animal defences<br>BT2: Animal behaviour                                       | Link to Poisonous animals?<br><br><b>CC comment</b><br>Agree   | <b>JPC Action</b><br>RT Poisonous animals                           | Venom<br>BT: Toxins<br>RT: Animal defences<br>Poisonous animals |

## 7.6 Quality assurance of subject terms relating to LO “Animal Eyes”

| No.  | Subject term   | CC comment   | JPC comment  | Outcome   |
|------|--|--|--|---|
| 184. | Astigmatism<br>BT1: Vision defects<br>BT2: Vision<br>BT3: Senses<br>RT: Cornea | Is there scope for establishing Stigmatism?<br><br><b>CC comment</b><br>We could establish Stigmatism as a RT to Astigmatism and link to Vision defects.<br><br><b>CC comment</b><br>Agree | Macquarie defines stigmatism as “a condition in which there is no astigmatism”<br>CC to decide<br><br><b>Action:</b> Term added Stigmatism and RT Vision defects | Astigmatism<br>BT: Vision defects<br>RT: Cornea<br>Stigmatism |
| 185. | Binocular vision   | Is this a vision defect? A SN may need   | No, not a vision defect but rather a   | Binocular vision  |

| No.  | Subject term   | CC comment   | JPC comment   | Outcome   |
|------|--|--|---|---|
|      | BT1: Vision<br>BT2: Senses   | to be established.<br><br><b>CC comment</b><br>Agree. No further action.   | "type of vision". – type of vision<br>"humans have".....unless they lose an eye.  | BT: Vision  |
| 186. | Birds of prey  | Missing reference structure.<br><br><b>CC comment</b><br>Agree. No further action.   | Error – all references to specific animals – with the exception of bats – were removed<br><b>Action:</b> Term deleted   | Birds of prey<br>BT: Birds<br>NT: Owls<br>Tawny frogmouths  |
| 187. | Crystalline lens<br>BT1: Eyes<br>BT2: Anatomy<br>RT: Cataracts<br>SN: Use for works specifically dealing with the lens of an eye.  | Should this be plural?<br>Is there a need for the SN?<br><br><b>CC comment</b><br>Agree with SN and plural. A reference to Lenses I think would be useful.<br><br><b>CC comment</b><br>Agree<br>SN modified as per <i>Specifications</i> . | A scope note was included. Do you want to include a reference to Lenses<br><br><b>Action:</b> plural added<br>Action: RT Lenses added – assume existing ScOT structure for Lenses | Crystalline lenses<br>BT: Eyes<br>RT: Cataracts<br>Lenses<br>SN: Use for resources about the lens of an eye.  |
| 188. | Eye diseases<br>BT1: Diseases<br>NT1: Blindness<br>NT1: Cataracts<br>NT1: Conjunctivitis<br>NT1: Diabetic retinopathy<br>NT1: Glaucoma<br>NT1: Macular degeneration<br>NT1: Ophthalmology<br>NT1: Trachoma<br>RT: Eyes | Link to Vision defects?<br><br><b>CC comment</b><br>Agree.   | Related terms?<br><b>Action:</b> RT Vision defects  | Eye diseases<br>BT: Diseases<br>NT: Blindness<br>Cataracts<br>Conjunctivitis<br>Diabetic retinopathy<br>Glaucoma<br>Macular degeneration<br>Ophthalmology<br>Trachoma<br>RT: Eyes<br>Vision defects |
| 189. | Hearing<br>BT1: Senses<br>RT: Echolocation   | Link to Ears?<br><br><b>CC comment</b><br>Agree.   | Existing ScOT structure<br><br>Action: RT Ears (Anatomy)  | Hearing<br>BT: Ears (Anatomy)<br>Senses<br>RT: Echolocation   |
| 190. | Hibernation<br>RT: Pineal gland  | This seems to be a very tenuous link. What is the relationship? Happy to receive further advice from JPC.  | This relationship came up in many of the text examples for this age group. This is how the bear wakes from  | Hibernation<br>BT: Animal adaptations<br>RT: Pineal gland   |

| No.  | Subject term   | CC comment   | JPC comment  | Outcome   |
|------|--|--|--|---|
|      |  | <b>CC comment</b><br>CC happy to retain link.                          | hibernation, how animals collect information on when it is spring etc. But is was recurring example given therefore link made – but yes, tenuous.<br><b>Remove at your discretion.</b><br>Interesting basics in humans here<br><a href="http://uscneurosurgery.com/glossary/p/pineal%20gland.htm">http://uscneurosurgery.com/glossary/p/pineal%20gland.htm</a> |   |
| 191. | Insects<br>RT: Compound eye  |  |  |   |
| 192. | Nutrition<br>NT1: Vitamins<br>NT2: Vitamin A                               |  |  |   |
| 193. | Occupations<br>NT1: Opthamologists<br>NT1: Optometrists                    | Spelling error for Opthamologists?<br><br><b>CC comment</b><br>Agree.  | Apologies – error corrected  | Occupations<br>NT: Curators<br>Geologists<br>Geophysicists<br>Meteorologists<br>Scientists<br>Bacteriologists<br>Epidemiologists<br>Microbiologists<br>Ophthalmologists<br>Optometrists<br>Palaeozoologists |
| 194. | Ophthalmoscopes<br>BT1: Optical instruments<br>BT2: Scientific instruments | Spelling error for Ophthalmoscopes?<br><br><b>CC comment</b><br>Agree. | Apologies – error corrected<br>(missed a different letter each time!)  | Ophthalmoscopes<br>BT: Optical instruments  |
| 195. | Opthamologists<br>BT1: Occupations<br>RT: Opthamology                      | Check spelling.<br><br><b>CC comment</b><br>Agree. No further action.  | Apologies – error corrected  | Ophthalmologists<br>BT: Occupations<br>RT: Ophthalmology  |
| 196. | Opthamology<br>BT1: Eye diseases   | <b>CC comment</b><br>Check spelling                                    | Copied from Multites<br>Ophthalmology  | Ophthalmology<br>BT: Eye diseases   |

| No.  | Subject term   | CC comment   | JPC comment  | Outcome   |
|------|--|--|--|---|
|      | BT2: Diseases<br>RT: Opthamologists                        | <b>CC comment</b><br>Agree<br>The error on the left hand column is missing a second "h", I,e,<br>O p h t h a l a m o l o g y             | Copied from digital dictionary<br>Ophthalmology<br>I have checked Macquarie.....<br>May have been looking at it too long – but I think it is right??? Give me a hint.....    | RT: Ophthalmologists  |
| 197. | Optometry<br>BT1: Eyes<br>BT2: Anatomy<br>RT: Optometrists | Link to Medicine or Medical services in some way?<br><br><b>CC comment</b><br>Awaiting further comment<br><br><b>CC comment</b><br>Agree | Suggestion to link to Medical services makes sense but will mean some retrospective services may need to be added<br>Action: RT Medical services added assume ScOT structure | Optometry<br>BT: Eyes<br>RT: Medical services<br>Optometrists |

## 7.7 Quality assurance of subject terms relating to LO “Perfect Match”

| No.  | Subject term   | CC comment  | JPC comment  | Outcome  |
|------|--|---|--|--|
| 198. | Asexual reproduction<br>BT1: Reproduction<br>NT1: Budding<br>NT1: Fission<br>NT1: Fragmentation<br>NT1: Parthenogenesis<br>NT1: Regeneration | Spelling error for “Parthenogenesis”?<br><br><b>CC comment</b><br>Agree   | Spelling error<br><b>Action:</b> Term modified   | Asexual reproduction<br>BT: Reproduction<br>NT: Budding<br>Fission<br>Fragmentation<br>Parthenogenesis<br>Regeneration |
| 199. | Estrogen<br>BT1: Hormones<br>RT: Reproduction  | Should “Estrogen” be in the plural?<br><br><b>CC comment</b><br>Agree with JPC comment. Let us retain the singular. The acid subject terms will be checked by CC for consistency. | Will be guided by comments of CC. However, why not suggested for “testosterone”?<br>Again – Library of Congress is singular. I checked the “acids” entry for ScOT – some plural – some singular. | Estrogens<br>BT: Hormones<br>RT: Reproduction  |



| No.  | Subject term  | CC comment  | JPC comment   | Outcome  |
|------|---|---|---|--|
|      |   |   | <b>Defer to CC</b><br>Action: term modified   |  |
| 200. | Gamets<br>BT1: Sexual reproduction<br>BT2: Reproduction           | Should this be "Gametes"? See Macquarie.<br><br><b>CC comment</b><br>Agree  | Spelling error<br><b>Action:</b> Term modified  | Gametes<br>BT: Sexual reproduction   |
| 201. | Hormones<br>NT1: Estrogen<br>NT1: Pheromones<br>NT1: Testosterone | BT in ScOT is Biochemicals. What is the relationship to the NT shown in this reference structure to the NT in existing subject term – Plant hormones and Growth hormones?<br><br><b>CC comment</b><br>Agree with JPC comments re hormones and the need for a SN to define the scope.<br><br><b>CC comment</b><br>Agree SN modified as per <i>Specifications</i> . | This is in the "too hard" basket. Here is a site which defines the groups of hormones<br><a href="http://www.endocrinesurgeon.co.uk/introduction/introduction3.html">http://www.endocrinesurgeon.co.uk/introduction/introduction3.html</a><br>The current listing for ScOT NT doesn't really cover the breadth of hormone types. The Estrogen and Testosterone NT are do not fit under the hormone type "growth hormone" and the reference to Pheromones specifically relates back to the entries for the "insects" objects.<br>The referencing structure in Library of Congress was used as a model. BT Hormones – NT specific hormone types<br>In previous term suggestions Hormones were NT of Endocrine System.<br>Here is a simple outline of Plant hormones as a discussion<br><a href="http://www.hcs.ohio-state.edu/hcs300/hormone.htm">http://www.hcs.ohio-state.edu/hcs300/hormone.htm</a><br>JPC Suggests that "hormones" be used for the discussion of human or animal? hormones and a scope note be included to define this.<br>Specific discussion of Plant hormones would be identified by this specific term. | Carnivores<br>UF: Flesh eating animals<br>UF: Meat eating animals<br>BT: Animals<br>RT: Carnivorous plants<br>RT: Herbivores<br>RT: Omnivores<br>RT: Ekaltadeta<br>RT: Thylacoleo carnifex<br>RT: Insectivores |

| No.  | Subject term   | CC comment  | JPC comment  | Outcome   |
|------|--|---|--|---|
|      |  |   | <p>Action: BT Biochemicals added<br/>A RT relationship between Hormones and Endocrine systems has been established. Note that only an RT because of production of hormones in insects or the synthetic production of hormones.</p> <p>Scope note has been created to restrict use to "animal" hormones.</p> <p><b>Suggest:</b> Need to remove reference to "growth hormone" in present structure until other "types of hormones are added.</p> <p>Action: Endocrine system added<br/>Action: RT to Hormones<br/>Action: Scope note reads.<br/>Use for works about substances used by animals which effect physiological activity such as growth or metabolism. Works dealing with hormones in plants are under Plant hormones.</p> |   |
| 202. | Mating behaviour   | <p>Reference structure?</p> <p><b>CC comment</b><br/>Agree</p>  | <p>Apologies – this term was deleted in favour of ScOT term "Reproductive behaviour"</p> <p>Action: Term deleted</p>   | Removed.  |
| 203. | <p>Menstruation</p> <p>BT1: Reproduction</p> <p>RT: Reproductive anatomy</p>           | <p>Could we add Periods as a UF?</p> <p><b>CC comment</b><br/>Agree</p>                                     | <p>Agree – common text sources refer to "Periods" as common usage term.</p> <p>Action: Use for added</p>   | <p>Menstruation</p> <p>BT: Reproduction</p> <p>RT: Reproductive anatomy</p> |
| 204. | <p>Ovaries</p> <p>BT1: Gonads</p> <p>BT2: Reproductive anatomy</p> <p>BT3: Anatomy</p> | <p>RT to Oviduct?</p> <p><b>CC comment</b><br/>Agree</p>  | <p>Agree</p> <p>Action: RT added</p>   | <p>Ovaries</p> <p>BT: Gonads</p> <p>RT: Oviduct</p>                         |
| 205. | <p>Oviduct</p> <p>BT1: Reproductive anatomy</p> <p>BT2: Anatomy</p>                    | <p>Should this be plural as are there not two oviducts connecting to the ovaries?</p> <p>RT to Oviduct?</p> | <p>Think this is RT Ovaries</p> <p>Agree</p>   | <p>Oviduct</p> <p>BT: Reproductive anatomy</p> <p>RT: Ovaries</p>           |

| No.  | Subject term   | CC comment  | JPC comment   | Outcome   |
|------|--|---|---|---|
|      |  | <b>CC comment</b><br>Agree  | Action: RT added  |   |
| 206. | Sperm duct<br>BT1: Reproductive anatomy<br>BT2: Anatomy            | RT to the Testes or Penis?<br><br><b>CC comment</b><br>Agree. Sperm can be added later if required. | This quote from an activity we use in our school<br>Sperm duct: Tube that carries sperm from the testes to the penis<br>Oviduct: Name of the tube an ovum travels down from the ovary<br>Both RT are relevant.....<br>Action: RT Testes RT Penis added<br><b>Query:</b> the term Sperm has not been added | Sperm duct<br>BT: Reproductive anatomy<br>RT: Penis<br>Testes |
| 207. | Testes<br>BT1: Gonads<br>BT2: Reproductive anatomy<br>BT3: Anatomy |   |   | Testes<br>BT: Gonads<br>RT: Sperm duct                        |

## 7.8 Quality assurance of subject terms relating to LO “Hydroponics” and “Shoes”

| No.  | Subject term                                 | CC comment  | JPC comment  | Outcome                           |
|------|--|---|--|-----------------------------------|
| 208. | Ankle<br>BT1: Joints<br>BT2: Skeletal system | Plural.<br><br><b>CC comment</b><br>Agree.                                | Was misguided by the Standards in Library of Congress.<br><b>Action:</b> Plural added                        | Ankles<br>BT: Joints              |
| 209. | Elbow<br>BT1: Joints<br>BT2: Skeletal system | Plural.<br><br><b>CC comment</b><br>Agree.                                | <b>Action:</b> Plural added  | Elbows<br>BT: Joints              |
| 210. | Femur<br>BT1: Bones<br>BT2: Skeletal system  | Plural.<br><br><b>CC comment</b><br>Establish Femurs as preferred subject | Please note entry from dictionary Macquarie lists in same order so have added “femurs” – <b>CC to decide</b> | Femurs<br>UF: Femora<br>BT: Bones |

| No.  | Subject term                                     | CC comment  | JPC comment  | Outcome  |
|------|--|---|--|--|
|      |  | term with Femora as UF.<br><br><b>CC comment</b><br>Agree   | fe-mur<br><br>n. pl. fe-murs or fem-o-ra (fē-m' ō-rā)<br><br>Action: Plural added<br><b>Action: UF established</b>   |  |
| 211. | Fibula<br>BT1: Bones<br>BT2: Skeletal system     | Plural.<br><br><b>CC comment</b><br>Establish Fibulas as preferred subject term with Fibulae as UF.<br><br><b>CC comment</b><br>Agree | Please note entry from dictionary Macquarie lists in same order so have added "fibulae" – <b>CC to decide</b><br><br>fib-u-la<br><br>n. pl. fib-u-lae (-fē-l) or fib-u-las<br><br><b>Action:</b> Plural added<br><b>Action:</b> UF established | Fibulas<br>UF: Fibulae<br>BT: Bones                                    |
| 212. | Knee<br>BT1: Joints<br>BT2: Skeletal system      | Plural.<br><br><b>CC comment</b><br>Agree.  | <b>Action:</b> Plural added  | Knees<br>BT: Joints  |
| 213. | Ligaments<br>BT1: Joints<br>BT2: Skeletal system | Should this be related to muscles and possibly bones?<br><br><b>CC comment</b><br>Agree.  | Making the links between these terms is certainly a challenge – could also be related to concept of "injuries" to accommodate common elements in "Health" curriculum. CC suggestion logical<br><b>Action:</b> RT Muscles, Bones added          | Ligaments<br>BT: Joints<br>RT: Bones<br>Muscles                        |
| 214. | Orthopedics<br>RT: Bones                         | Spelling of Orthopedics?<br><br><b>CC comment</b><br>Agree.   | Macquarie spelling "orthopaedics"<br><br><b>Action:</b> term modified  | Orthopaedics<br>RT: Bones  |
| 215. | Patella<br>BT1: Bones<br>BT2: Skeletal system    | Plural?<br><br><b>CC comment</b><br>Patellas as preferred and Patellae as UF.<br><br><b>CC comment</b>                                | Macquarie lists "patellas" and "patellae". Have added first term "patellas" – <b>CC to decide</b><br><br><b>Action:</b> Plural added<br><b>Action:</b> UF established  | Patellae<br>USE: Patellas<br><br>Patellas<br>UF: Patellae<br>BT: Bones |

| No.  | Subject term  | CC comment  | JPC comment  | Outcome   |
|------|---|---|--|---|
|      |   | Agree   |  |   |
| 216. | Plant nutrients<br>BT1: Nutrients<br>BT2: Biochemicals<br>RT: Fertilisers<br>RT: Nitrogen<br>RT: Phosphorous<br>RT: Potassium | Link to Plants?<br><br><b>CC comment</b><br>Agree.  | Agree<br><br><b>Action:</b> RT Plants  | Plant nutrients<br>BT: Nutrients<br>RT: Fertilisers<br>Nitrogen<br>Phosphorous<br>Plants<br>Potassium |
| 217. | Tibia<br>BT1: Bones<br>BT2: Skeletal system   | Plural.<br><br><b>CC comment</b><br>Tibias as preferred and Tibiae as UF.<br><br><b>CC comment</b><br>Agree | Macquarie lists "tibias" and "tibiae".<br>Have added first term "tibias" – <b>CC to decide</b><br><br><b>Action:</b> Plural added<br><b>Action:</b> UF established | Tibiae<br>USE: Tibias<br><br>Tibias<br>UF: Tibiae<br>BT: Bones  |
| 218. | Wrist<br>BT1: Joints<br>BT2: Skeletal system  | <b>CC comment</b><br>Plural   |  | Wrists<br>BT: Joints  |

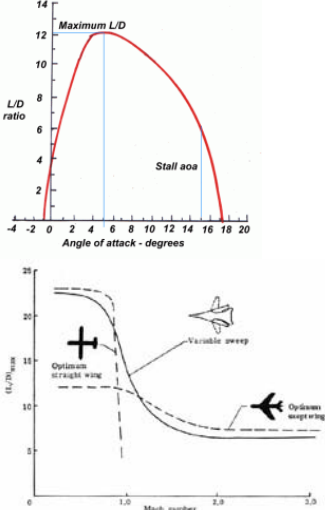
## 7.9 Quality assurance of subject terms relating to other issues

This section lists issues identified by additional Curriculum Corporation staff in relation to subject terms developed for the Science 2 Project.

| No.  | Subject term                               | Additional CC comment   | JPC comment   | Outcome |
|------|--|---|---|---------|
| 219. | Animal behaviour<br>NT Herds<br>Pheromones | Query the NT Pheromones as they do not in themselves communicate. They are chemicals that have an odour or create an odour.<br><br><b>CC comment</b><br>Agree. No further action. | Macquarie.. any of a large group of compounds secreted by animals esp. insects, in response to a stimulus, as sex, food etc <b>and used as a chemical means of communication.</b> |         |

| No.  | Subject term  | Additional CC comment  | JPC comment   | Outcome  |
|------|---|--|---|--|
| 220. | Astigmatism<br>BT Vision defects<br>RT Cornea   | Could Stigmatism be established as well either as a UF or linked as a preferred subject term?<br><br><b>CC comment</b><br>Noted. No further action.  | Resolved in QA 6b   |  |
| 221. | Dingoes<br>BT Dogs<br>RT Feral animals  | Query the RT Feral animals as some would argue that not all dingoes are feral. Could add Native animals as well?<br><br><b>CC comment</b><br>Native animals to be added as a RT to Dingoes and a BT to Animals | Macquarie defines feral as wild (of or characteristics of wild animals).. Australian Geographic April-June 2004-04-27 pp106-109, consider the dingo feral. (wild) They do suggest that it could be classified as native animals Ecos (118) Towards a Sustainable Future Jan – March 2004 p 10 -12, classifies the dingo as wild. Introduction of term Native animals would interface well with curriculum documents. (and complement ScOT term Native plants. | Dingoes<br>BT: Wolves<br>RT: Feral animals<br>Predator-prey relationships  |
| 222. | Earth movements<br>BT Earth<br>Geomorphology<br>Geophysics<br>NT Avalanches<br>Earthquakes<br>Landslides<br>Seismic waves<br>RT Faults<br>Folds<br>Natural disasters<br>Rifts | Not all earth movements are considered to be disasters. However the reference structure is correct.<br><br><b>CC comment</b><br>Noted.   | Under review in QA 4 – discussion still pending   | Earth movements<br>BT: Earth<br>Geomorphology<br>Geophysics<br>NT: Avalanches<br>Earthquakes<br>Landslides<br>Seismic waves<br>RT: Faults<br>Folds<br>Natural disasters<br>Rifts |
| 223. | Faults<br>BT Mountain building<br>NT Graben<br>Horsts<br>Rifts<br>RT Earth movements  | Add Plate tectonics or Tectonics as an RT?<br><br><b>CC comment</b><br>Noted.  | Under review in QA 4 – discussion still pending   | Faults<br>BT: Mountain building<br>NT: Graben<br>Horsts<br>Rifts<br>RT: Earth movements  |

| No.  | Subject term  | Additional CC comment   | JPC comment   | Outcome   |
|------|---|---|---|---|
| 224. | Flexible wing<br>BT Wings (Flight)  | Should Flexible wing be plural?<br><br><b>CC comment</b><br>Noted.  | Agree<br>Flexible wings   | Flexible wings<br>BT: Airfoil<br>Wings (Flight)     |
| 225. | Floods<br>BT Natural disasters  | Query the BT as are all floods considered to be disasters? Could Natural events be used as an alternative?<br><br><b>CC comment</b><br>Noted. May consider at a later stage.  | Agree – the BT Natural disasters will need to be removed from current ScOT structure<br>Would like more information on structure for “Natural events”....opens a “wide door” for tangential links eg hail storms, tsunamis etc any act of nature that doesn’t cause damage.....<br>Suggest revise to RT Natural disasters   | Floods<br>BT: Natural disasters<br>Weather          |
| 226. | Future<br>NT Time travel  | An alternative reference structure could be:<br>Future<br>BT Time dimensions<br>RT Past<br>Present<br><br><b>CC comment</b><br>Agree. Revised reference structure as shown above.<br>Time dimensions is a new subject term. Would suggest a RT to Measurement and perhaps a BT to Philosophy. | Agree – better than structure suggested in report 4b based on current ScOT.<br>What is the relationship for Time dimensions?  | Future<br>BT: Time (Measurement)<br>NT: Time travel |
| 227. | Huntsman spiders<br>BT Spiders<br>NT Badge huntsman spiders<br>Brown huntsman spiders | Huntsman should be Huntsmen (as in the plural?)<br><br><b>CC comment</b><br>Noted. No change.<br>The Queensland Museum site was very interesting.   | Huntsman spiders is the plural form used in texts.<br>McEvey S, Spiders Macmillan, South Yarra 2001. p29<br>This is published by the <b>Australian Museum Publishing Unit</b> .<br>Taylor, B, Nature Watch Spiders, Lrenz Books, London p57<br>Australia’s Dangerous Creatures (Readers Digest) p161<br><a href="http://www.qmuseum.qld.gov.au/feature">http://www.qmuseum.qld.gov.au/feature</a> |   |

| No.  | Subject term  | Additional CC comment  | JPC comment  | Outcome  |
|------|---|--|--|--|
|      |   |  | <a href="s/spiders/spidersqld.asp">s/spiders/spidersqld.asp</a><br>Qld Museum Huntsman spiders.  |  |
| 228. | Insectivores<br>SN Use for animals that eat mainly insects<br>BT Animals<br>RT Carnivores<br>Herbivores | Is the SN necessary?<br><br><b>CC comment</b><br>Noted.  | Agree remove SN  | Insectivores<br>BT Animals<br>RT Carnivores<br>Herbivores    |
| 229. | Lift/Drag ratio<br>BT Wings (Flight)  | Could the "/" be removed and subject term revised to Lift drag ratio?<br><br><b>CC comment</b><br>Noted. | In aerodynamics it is referred to as the lift to drag ratio or lift/drag ratio or l/d when graphing. Lift drag ratio should not alter the mathematical interpretation.<br><br> | Lift/Drag ratio<br>BT Wings (Flight)                         |
| 230. | Parachutes<br>BT Safety equipment   | Establish RT to Flight? Would this be relevant?<br><br><b>CC comment</b><br>Noted.                       | Agree RT Flight  | Parachutes<br>BT: Safety equipment<br>NT: Reserve parachutes |



| No.  | Subject term  | Additional CC comment                                   | JPC comment                              | Outcome  |
|------|---|---|--|--|
| 231. | Stalks (Animals)<br>SN Use for the action of quietly and secretly following an animal<br>BT Predator-prey relationships | Is the SN necessary?<br><br><b>CC comment</b><br>Noted. | Agree remove SN as qualifier sufficient. | Stalking<br>BT: Predator-prey relationships<br>SN: Use for resources on the action of quietly and secretly following an animal |

## 7.10 Quality assurance of subject terms arising from the integration of Science 2 subject terms

| No   | Science 2 subject term relationship           | ScOT Version 3.4 relationship      | Issue and discussion   | Outcome   |
|------|---|------------------------------------|--|---|
| 232. | Air traffic control<br>BT Airports            | Air traffic control<br>RT Airports | Subject terms already related.<br>Agreed to change to BT Airports.   | Air traffic control<br>BT Airports  |
| 233. | Animal sounds<br>RT Sounds                    | Animal sounds<br>BT Sounds         | Subject terms already related.<br>Agreed to retain as per Version 3.4 of SCOT.   | Animal sounds<br>BT Sounds  |
| 234. | Dacron<br>BT Synthetic fibres                 |                                    | Synthetic fibres is a non preferred subject term.<br>Agreed to change Synthetic fibres to a NT under Fibres (Materials). Linked Dacron to Synthetic fibres as a NT and Fabrics as a NT | Dacron<br>BT Fabrics<br>Synthetic fibres  |
| 235. | Ears (Anatomy)<br>NT Hearing                  | Ears (Anatomy)<br>RT Hearing       | Subject terms already related.<br>Agreed to retain as per Version 3.4 of ScOT.   | Ears (Anatomy)<br>RT Hearing  |
| 236. | Earth sciences<br>NT Geomorphology            | Earth sciences<br>RT Geomorphology | Subject terms already related.<br>Agreed to retain as per Version 3.4 of ScOT.   | Earth sciences<br>RT Geomorphology  |
| 237. | Emergency management<br>UF Emergency services |                                    | Emergency services is a preferred subject term.<br>Agreed to retain structure as per Version 3.4 of ScOT but add Emergency management as a UF.   | Emergency services<br>UF Civil defence<br>Emergency management<br>BT Government role<br>NT Ambulance services<br>RT Disaster relief |

|      |  |   |   | Disasters  |
|------|--|---|---|--|
| 238. | Erosion<br>BT Physical geography                   | Erosion<br>RT Physical geography        | Subject terms are already related<br>Agreed to retain as per Version 3.4 of ScOT.   |  |
| 239. | Immunisation<br>USE Vaccination                    | Immunisation<br>NT Vaccination          | Subject terms are preferred and BT/NT relationship. Following discussion agreed that there was sufficient warrant to have both subject terms as preferred and a reciprocal SN established for both. | Immunisation<br>SN Use for resources about being immune from any disease. For resources on the process of inoculating with any vaccine to obtain immunity or protection from the corresponding disease use Vaccination.<br>NT Vaccination<br><br>Vaccination<br>SN Use for resources about the process of inoculating with any vaccine to obtain immunity or protection from the corresponding disease. For resources about being immune from any disease use Immunisation.<br>UF Inoculation<br>Vaccines<br>BT Health<br>Immunisation<br>Etc. |
| 240. | Microscopes<br>BT Microbiology                     | Microscopes<br>RT Microbiology          | Subject terms are related.<br>Agreed to revert to original structure as per Version 3.4 of ScOT.  | Microscopes<br>RT Microbiology   |
| 241. | Natural disasters<br>RT Earth movements            | Natural disasters<br>NT Earth movements | Subject terms are BT/NT in Version 3.4 of ScOT.<br>Following discussion it was agreed to retain in the reference structure as delivered by MediaSphere.   | Natural disasters<br>RT Earth movements  |
| 242. | Oceanography<br>BT Oceans                          | Oceanography<br>RT Oceans               | Subject terms are related.<br>Agreed to revert to original structure as per Version 3.4 of ScOT.  | Oceanography<br>RT Oceans  |
| 243. | Rubbish disposal<br>BT Public health<br>Sanitation | Rubbish disposal<br>USE Waste disposal  | Rubbish disposal is a non preferred subject term in Version 3.4 of ScOT.<br>Agreed to revert to original structure.   | Rubbish disposal<br>USE Waste disposal   |

|      |                            |                            |   |                            |
|------|----------------------------|----------------------------|---|----------------------------|
|      | RT Sewage disposal         |                            |   |                            |
| 244. | Sounds<br>RT Animal sounds | Sounds<br>NT Animal sounds | Subject terms are BT/NT in Version 3.4 of ScOT. Following discussion it was agreed to revert to structure as per Version 3.4 in ScOT. | Sounds<br>NT Animal sounds |

## 7.11 List of resources consulted

### 7.11.1 General resources consulted

Topic specific resources have not been included as an authoritative source as multiple sources were consulted to validate a decision.

### 7.11.2 Curriculum documentation

#### 7.11.2.1 Australian Capital Territory

- Curriculum Corporation (1994). *A statement on science for Australian schools*, Carlton South.
- Curriculum Corporation (1994). *Science – a curriculum profile for Australian schools*, Carlton South.
- Deleuil, L. & Malcolm, C. (1994). *Using the science profile*, Carlton: Curriculum Corporation
- Science Curriculum Framework <http://www.decs.act.gov.au/publicat/pdf/science.pdf>
- Curriculum Profiles for Australian Schools <http://www.decs.act.gov.au/publicat/profiles.htm>

#### 7.11.2.2 New South Wales

- Board of Studies <http://www.bosnsw-k6.nsw.edu.au/>
- Board of Studies Years 7-10 Syllabuses and support materials [http://www.boardofstudies.nsw.edu.au/syllabus\\_sc/index.html](http://www.boardofstudies.nsw.edu.au/syllabus_sc/index.html)

#### 7.11.2.3 Northern Territory

- Department of Education Employment and Training. Curriculum Services Branch <http://www.schools.nt.edu.au/curricbr/cf/pilotmats/CD/las/science.htm>
- Curriculum Frameworks <http://www.schools.nt.edu.au/curricbr/framework/>

#### 7.11.2.4 Queensland

- Education Queensland <http://education.qld.gov.au/>
- Queensland Studies Authority <http://www.qsa.qld.edu.au/>
- Queensland School Curriculum Council 1999, *Science: initial in-service materials*, Queensland School Curriculum Council, Brisbane.
- Queensland School Curriculum Council 1999, *Science: years 1 to 10 source guidelines*, Queensland School Curriculum Council, Brisbane.
- Queensland School Curriculum Council 1999, *Science: years 1 to 10 syllabus*, Queensland School Curriculum Council, Brisbane

#### 7.11.2.5 South Australia

- South Australian Curriculum Standards and Accountability [http://www.sacsa.sa.edu.au/index\\_fsfc.asp?t=LA](http://www.sacsa.sa.edu.au/index_fsfc.asp?t=LA)

### 7.11.2.6 Tasmania

- Department of Education Tasmania Science Year 9& 10 Syllabus <http://www2.education.tas.gov.au/Nav/SubHeading.asp?Topic=Curriculum+and+Training+Packages&Heading=Learning+area+%2D+Science&SubHeading=Science+syllabus+details>
- Science Curriculum Support <http://www.discover.tased.edu.au/science/> and <http://www.discover.tased.edu.au/science/websites.htm>

### 7.11.2.7 Victoria

- Education Victoria [http://www.vic.gov.au/VictoriaOnline?action=browse&id=\[Topic\]Education%20!%20Training&taxonomy=Topic&maxResults=10000&resultType=Detailed&resultCount=10&sort\\_by=titleAZ](http://www.vic.gov.au/VictoriaOnline?action=browse&id=[Topic]Education%20!%20Training&taxonomy=Topic&maxResults=10000&resultType=Detailed&resultCount=10&sort_by=titleAZ)
- Victorian Curriculum and Assessment Authority <http://csf.vcaa.vic.edu.au/sc/kssc.htm>

### 7.11.2.8 Western Australia

- Curriculum Council of Western Australia <http://www.curriculum.wa.edu.au/>
- Curriculum Frameworks <http://www.curriculum.wa.edu.au/pages/framework/framework00.htm>
- Curriculum Links [http://www.hreoc.gov.au/info\\_for\\_teachers/face\\_facts/curriculum\\_links/wa.pdf](http://www.hreoc.gov.au/info_for_teachers/face_facts/curriculum_links/wa.pdf)
- Science Learning Area Statement <http://www.curriculum.wa.edu.au/files/pdf/science.pdf>

### 7.11.2.9 New Zealand

- <http://www.minedu.govt.nz/index.cfm?layout=document&documentid=3525&indexid=1005&indexparentid=1004>

### 7.11.2.10 Curriculum Frameworks and Syllabuses (Australia/New Zealand)

- <http://www.curriculum.edu.au/fineprint/frameworks.htm>

### 7.11.3 Thesauri and Dictionaries

- A – Z of Thesauri <http://hilt.cdlr.strath.ac.uk/Sources/thesauri.htm>
- Access Science Dictionary <http://www.accessscience.com/Dictionary>
- National Information Standards Organisation 1994, *Guidelines for the construction, format, and management of monolingual thesauri*, NISO Press, Bethesda.
- APAIS <http://www.nla.gov.au/apais/thesaurus/>
- Australian Pictorial Thesaurus <http://www.picturethesaurus.gov.au/>
- Biosis (Science) [http://www.biosis.org/learning/reference\\_shelf/list](http://www.biosis.org/learning/reference_shelf/list)
- BioTech Science <http://biotech.icmb.utexas.edu/pages/scitools.html>
- Bernard, JRL (ed.) 1984, *The Macquarie thesaurus: the book of words*, Macquarie Library, McMahons Point
- Butler, S (ed.) 1981, *The Macquarie dictionary*, Macquarie Library, McMahons Point.
- Canadian Literacy Thesaurus (bi-lingual) <http://thesaurusalpha.org/thesaurus/index.htm>
- ERIC Thesaurus <http://www.ericfacility.net/extra/pub/thesearch.cfm>
- Harper Collins Publishers 2003, *Science: Collins Dictionary*, Harper Collins, Glasgow.

- HILT list of thesauri <http://hilt.cdlr.strath.ac.uk/Sources/thesauri.html>
- Lafferty, P & Rowe, J 1994, *Dictionary of science*, Helicon Publishing Ltd, Oxford.
- Lexicological and classification references <http://palimpsest.stanford.edu/lex/>
- Mammal Species of the World <http://nmnhwww.si.edu/cgi-bin/wdb/msw/names/form>
- SCIS <http://www.curriculum.edu.au/scis/>
- Schools Catalogue Information Service 2002, *SCIS subject headings*, 5<sup>th</sup> edn, Curriculum Corporation, Carlton South
- ScOT Online Thesaurus <http://scot.curriculum.edu.au/default.htm>
- Schools Online Thesaurus, *ScOT NZ science terms exported from multites*.
- Library of Congress <http://authorities.loc.gov/cgi-bin/Pwebrecon.cgi?DB=local&PAGE=First>
- UNESCO Thesaurus <http://www.ulcc.ac.uk/unesco/thesaurus.htm>
- Harper Collins Publishers (2003). *Science: Collins Dictionary*, Glasgow: Harper Collins.

#### 7.11.4 General

- ABC Science on-line <http://www.abc.net.au/science/>
- Australia's Environment Portal Home Page [www.environment.gov.au/](http://www.environment.gov.au/)
- Curriculum Corporation <http://www.curriculum.edu.au/>
- Department of Education and Employment 1998, *Sustaining Environmental Education*, DETE, Campbelltown
- Department of Education Training and Employment, *Addressing Literacy in Science, A Middle Years Resource*, Curriculum Corporation, Carlton South
- Evans, C & McCann, M 1993, *Issues in Science*, Heinemann Education, Port Melbourne
- Heinemann <http://www.heinemann.com/>
- Kerrod, R & Holgate, SA 2002, *The way science works*, Dorling Kindersley Limited, London.
- Malcom C, (ed) 1996, *Could We? Should We? Science for Year 10*, Curriculum Corporation, Carlton South
- Pearson Education Australia – Science Outcomes Series  
<http://www.pearsoned.com.au/schools/search6.asp?sSeries=Science%20Outcomes>
- Pearson Education Science weblinks  
<http://www.pearsoned.com.au/schools/secondary/weblinks.asp>
- Queensland Museum <http://www.qmuseum.qld.gov.au/>