



Curriculum

What we Use

Australian Curriculum & Queensland Curriculum and Assessment Authority, Australian Qualifications Framework, Nudgee Beach EEC Curriculum – Empowering Keepers' of the Wetland

Evidence

Programs that are linked to the Australian Curriculum Achievement Standard for each year level
Each program has an obvious link to Empowering Keepers' of the Wetlands Cert II Calm Learning Plan

Pedagogy

What we Use

Learning Beyond the Classroom- A placed Based Pedagogy

Evidence

Use of the 5 Elements in programs- Being in the Natural Environment, Life Learning in Real Places, Full Sensory, Mind and Body Engagement, Exploring Local Contexts and Places, Learning By Doing, Adventure and Challenge

Use of the Tools in programs- Deep Reflective Responding, Attentiveness, Caring for Self, Others and Place, Environmental Narrative, games and Play

Assessment & Reporting

What we Use

Visiting teacher on line survey (perceptual data)
Student Formative Assessment (academic data)
Keepers Challenge (perceptual data)
Centre Teacher Continuum (perceptual data)

Evidence

Collect evidence
Create data sets
Data sets used for program improvement
To allow for feedback to teachers

Our Values

Environment: Cultivating awareness of biodiversity, sustainability and human impacts in South East Queensland.

Cultural awareness and understanding: Acknowledging the Indigenous past, present and future significance to the wetlands.

Clients first: Creating positive and empowering experiences for students, schools and the community through life learning in real places.

Teaching ideals: Working cooperatively and efficiently within a research based pedagogy to deliver curriculum relevant programs to improve student outcomes.

NBEEC "family": Developing and empowering the centre community through relationships based on trust, respect and valuing diversity. (students, school staff and community)

Empowering Keepers' of the Wetlands

Our Mission

Students that visit NBEEC are challenged to become environmentally and culturally aware; to be empowered for the future as keepers of the wetlands.

By delivering curriculum relevant programs we will enhance students' understanding of our past, present and future environmental footprints.

Behaviour

Teachers at Nudgee Beach EEC focus on developing learning behaviours. Expectations of students are developed with an understanding of social, emotional and cognitive components (Others, Self and Place/Curriculum).

Reference: *Responsible Behaviour Plan*



Nudgee Beach EEC Curriculum, Assessment and Reporting Framework

Nudgee Beach Environmental Education Centre (Nudgee Beach EEC) is a State education owned and operated facility. As such the centre is required to implement the Australian Curriculum and to effectively resource the teaching and learning of every student. To deliver effective programs at Nudgee Beach EEC the following resources are relied upon;

- [Australian Curriculum](#)
- [P-12 Curriculum, Assessment and Reporting Framework](#)
- [Queensland Curriculum and Assessment Authority](#)
- [State Schools Strategy 2018 - 2022](#)
- [Learning Place – Assessment and Moderation Hub](#)
- [Evidence Hub](#)

It is Nudgee Beach EEC's priority to be able to explicitly state our links to the Australian Curriculum. This will allow Nudgee Beach EEC to continue to facilitate the teaching and learning for schools completing our programs. On our programs students will engage with the Australian Curriculum and also with Nudgee Beach EEC's "Curriculum", which will support the cross curriculum priority of Sustainability and Aboriginal & Torres Strait Islander Histories and Cultures. Nudgee Beach EEC's Curriculum is *Empowering Keepers' of the Wetland* (KOW). K.O.W allows programs to have a common "Why" The concept is to engage students of South East Queensland with the wetlands to understand their connection and how their actions influence the environment.

This "curriculum" embeds the following three foundations; **enhance biodiversity, increase sustainability** and **Cultural Awareness and Understanding** into our programs. These foundations have been extracted from the Australian Curriculum - Science, History, Geography and Cross Curriculum Priorities and are delivered differently at each year level to reflect the students' developmental stage.

This document explicitly links the Australian Curriculum subject areas, Achievement Standards, General Capabilities, Cross Curriculum Priorities, *KOW* within the Nudgee Beach EEC's programs.

Other documents are required to support the information within this framework (Pedagogy Framework, Responsible Behaviour Plan, Data Plan, Strategic Plan and Annual Implementation Plan).

Our Programs

For each program an exemplar Timetable (showing anticipated times, learning experiences, tidal requirements and sites utilised), a Lesson Plan, Equipment List, Pedagogical Approaches, an Assessment overview and Reflection tool has been developed. Within each program the Lesson Plan leads the teacher and learner on a journey from the *past* with an acknowledgement of the traditional owners, through a sequence of learning experiences: **present**; front ended by formative assessment which is revisited at the end of the day. The Keepers Challenge at the end of the day gives students an ongoing task: **future**; to deepen as well as demonstrate their

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



learning and acting for the future (being a KOTW). Visiting teacher post visit contact provide the mechanism for collecting teacher feedback through a state wide survey. Centre teachers review programs during Curriculum meetings using the Program Reflection Tool and actions from minutes. The key below developed from the Australian Curriculum assists with identifying these priorities within the programs.

Cross Curriculum Priorities



Aboriginal & Torres Strait Islander Histories and Cultures



Sustainability

General Capabilities



Critical and Creative thinking



Ethical Understanding



Intercultural understanding



Personal & Social Capacity



Literacy



Numeracy

Program alignment

Early years Program
P-10 Science
P-10 Geography
Yr 11 & 12
Cert II/ Cert III

Early Years Learning Framework, Foundations for Success
Australian Curriculum
Australian Curriculum
Queensland Curriculum Assessment Authority
Australian Qualifications Framework

Assessment

By using the Inquiry planner model to track assessment within the centre, staff have created a sharp and narrow focus for the programs and the aspect that the assessment will focus on; be it a Subject, Cross Curriculum priority or General Capability elaboration. While referencing the Achievement Standards the teachers scanned through the various elements of each program to look for the best assessable moments to demonstrate student improvement. (Outlined in red) Data (Achievement, Demographic, Instructional, Perceptual and Compliance) sets have been identified for each program. (See NBEEC Data Plan)

In developing assessment tools for the centre programs staff wanted to know:

- The effectiveness of our program;
- Effectiveness of our teaching;
- The improvement in student outcomes;
- Where our students came from;
- What programs are accessed;

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



The teaching staff have considered the following:

The Australian Curriculum subject area, achievement standard and assessable elements, and the KOW idea for the day.

The Demographic data collected through the central office data base provides one source of information which is validated by teachers in pre-visit conversations with visiting teachers. In addition information about the execution and delivery of program comes from four streams of assessment or feedback;

1. **Surveys (Perceptual Data) - Visiting Teacher's** email is collected while on site by admin staff. Admin staff then email to the visiting teacher the link to the central office survey tool. The opinion of the visiting teacher as to the centre's ability to meet curriculum links, teaching practice and value for time spent on the program. Other groups surveyed on site include **visiting parents** and **students** who are asked through an opinion survey what they thought of the day. Their perceptions.
2. **Centre Teacher feedback** - This assessment in the form of a continuum is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. This feedback is based on the achievement standard for the year level.
3. **Formative assessment** - A variety of tools will be used to assess students at different year levels ranging from photographic evidence, cloze activities, use of placemats, hoola hoop circles etc. These provide the mechanism to interpret distance travelled through a program – Before and after, and is usually completed within the program.
4. **Keeper's Challenge** - The medium term and perpetually long term influence of our programs is collected through anecdotal feedback via Social Media mediums - Facebook, Instagram, emails.

Reporting to and reasons why? Why do we assess? Who do we report for?

At Nudgee Beach EEC our primary purpose for assessment in all its forms has been to provide feedback to our teaching.

Each assessment provides different evidence:

1. Visiting Teacher Surveys provide an overview against several of the Professional Standards for Teachers. This information is also used by Central office to create headline data indicators which provide the system with information on our work. The feedback from visiting parents and students provide another perception of the day.
2. Centre Teacher surveys is used to compare one groups' progress in comparison to others who complete the same program. This will assist teachers to moderate across delivery a) on the same day [same school] and b) across different schools.
3. The formative assessment piece demonstrates students starting point and the progress across the day. This assessment piece comes from learning outcomes from the Curriculum.
4. The Keepers Challenge is aimed at empowering students and providing the Centre evidence of our programs key message and focus and gathering evidence of it's take up after leaving the centre.

Assessment Schedule

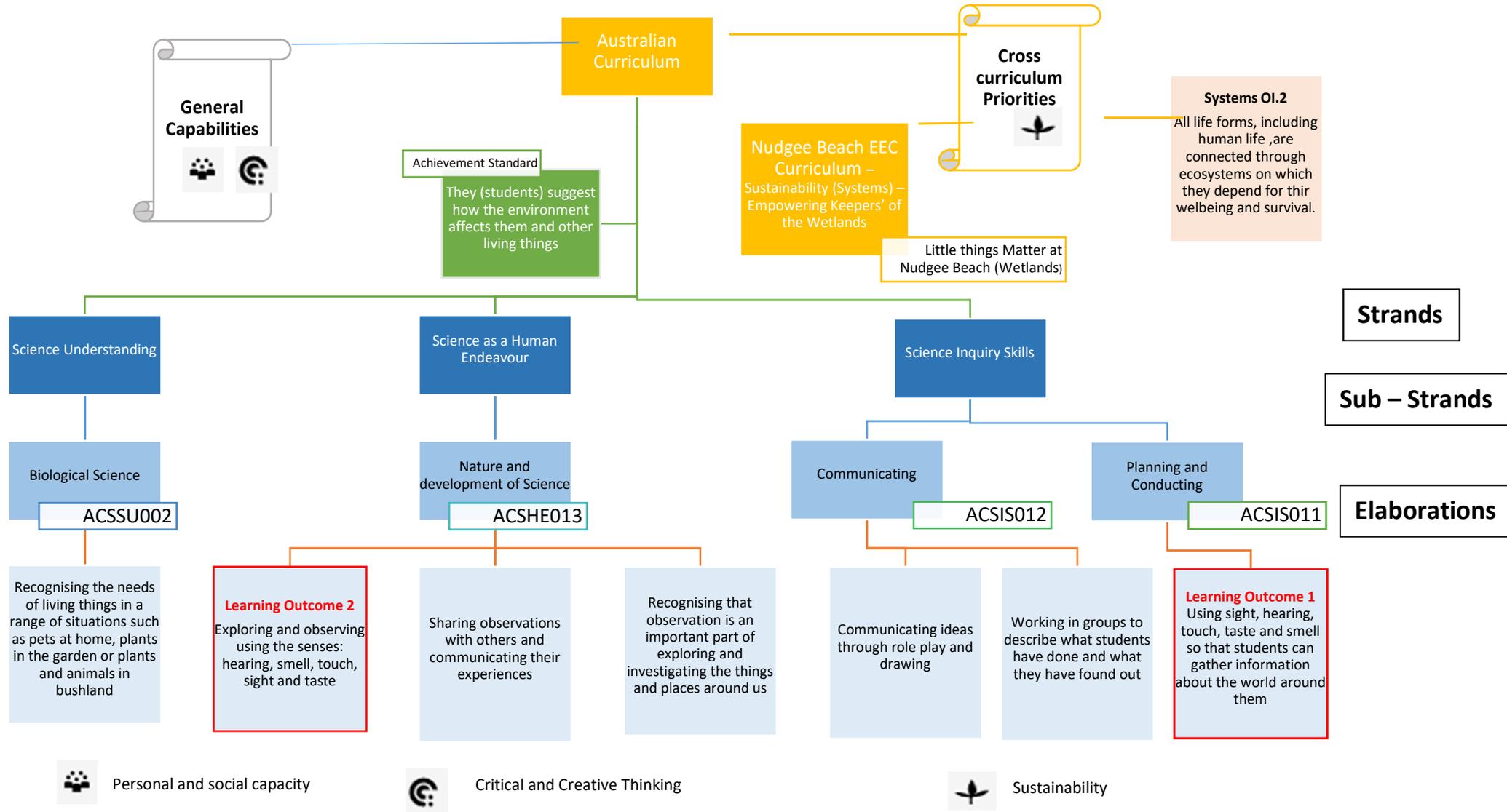
While it is acknowledged that assessment provides an important role in the teaching and learning cycle. At Nudgee Beach EEC not all student groups will be participate in all assessment categories. While all visiting teachers are asked to participate in the centre's online survey, the centre's data plan contains information on the years focus programs and forms of assessment currently being implemented. The collection of perceptual data from parents and students is currently randomly conducted. Information is displayed on the centre yearly planning board so all staff are aware of days when programs will incorporate formative assessment.



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science : Beach Explorers - Using Senses Prep program





Assessment Overview – Prep.

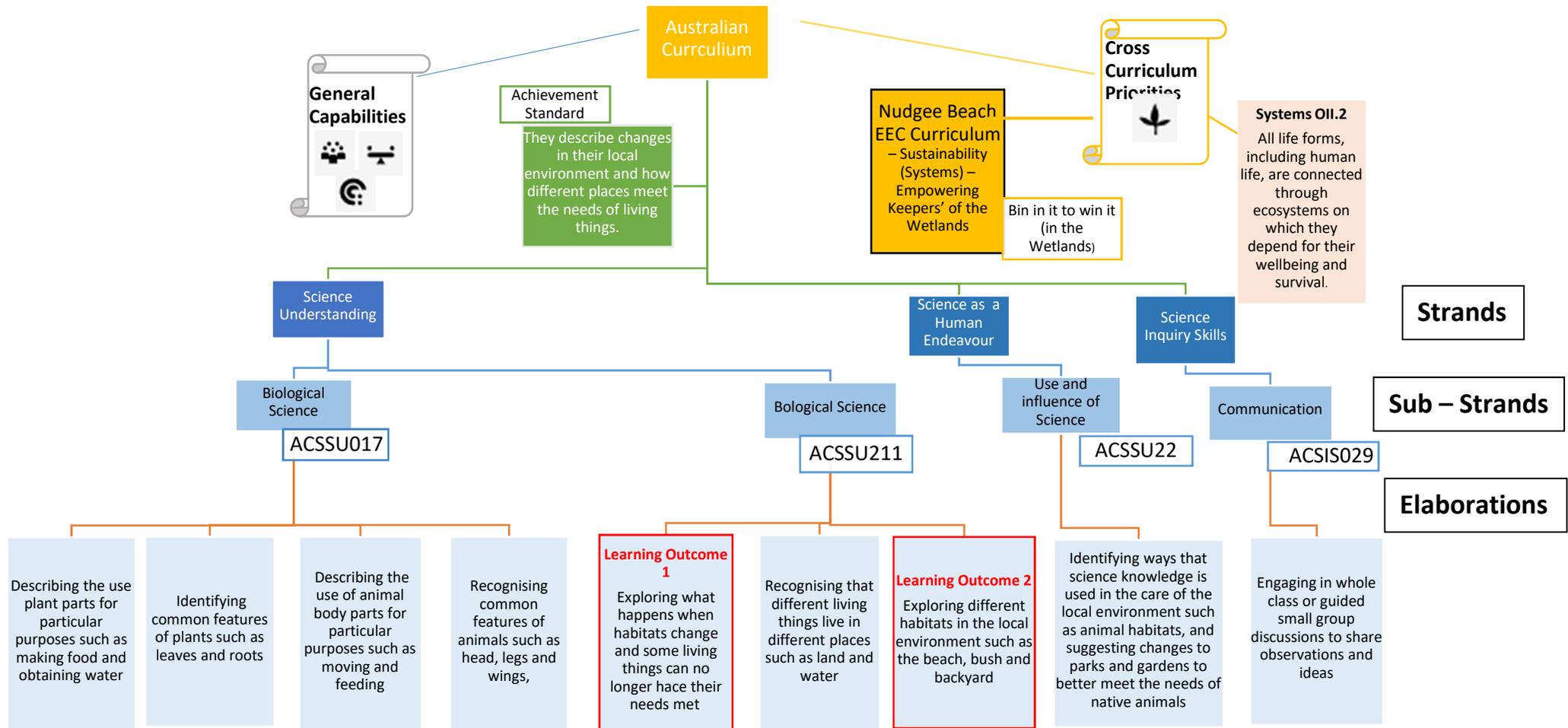
1. **Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
2. **Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
3. **Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
4. **Formative Assessment** — Tally of student predictions about what they think they will see on the beach drawn in chalk, identified and then tallied, and then experience based tally of what the students actually saw at the beach through student creation and identification of an animal in clay.
5. **Keepers' Challenge** - Students are encouraged as their challenge to bring take their family outside and find little things that matter and let us know.

Little things Matter Stickers are given as Motivation

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science – Moreton Bay – Everybodies Backyard Year 1 program





Assessment Overview – Year 1.

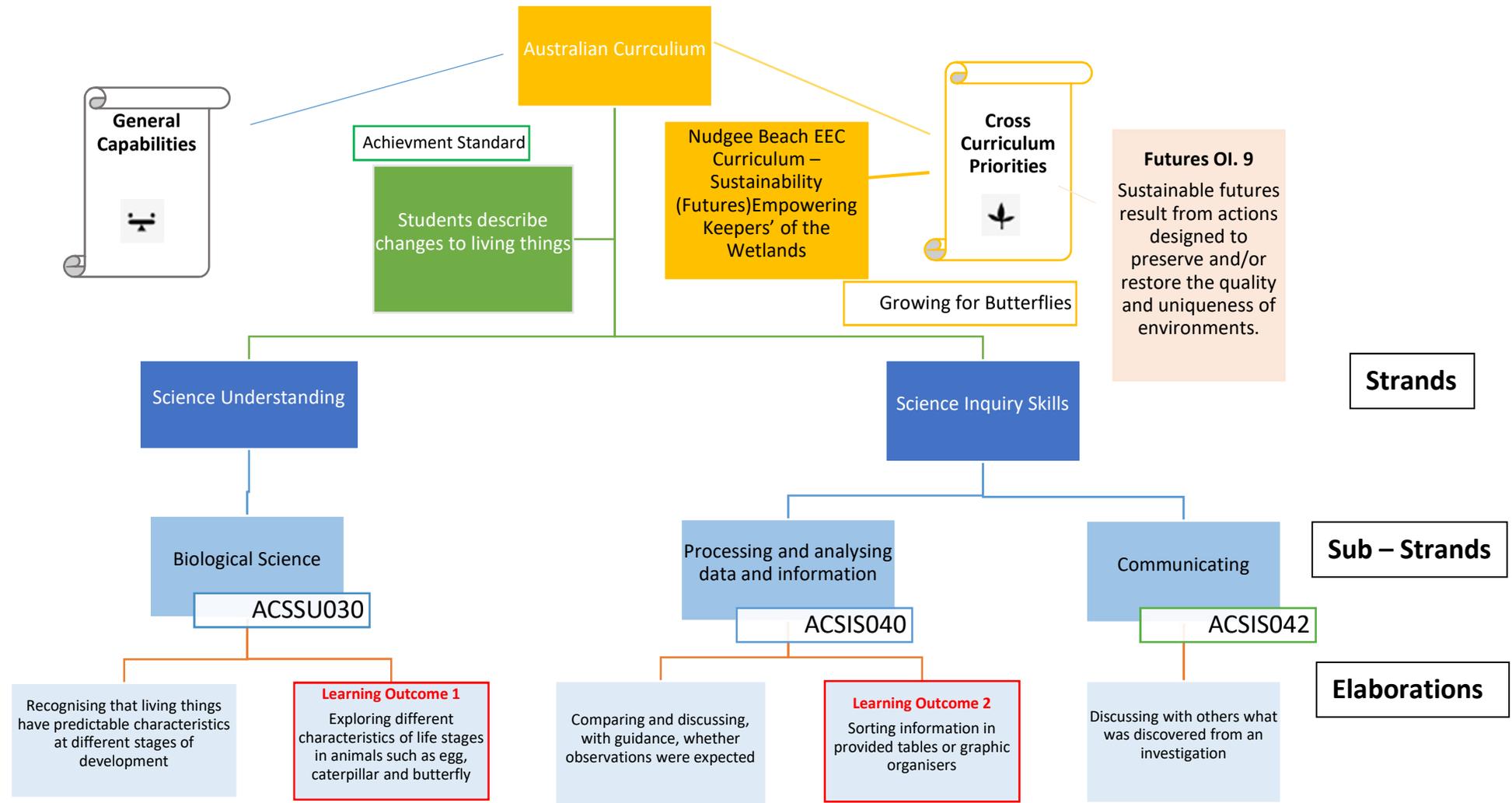
- 1 **Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 **Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
- 3 **Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
- 4 **Formative Assessment** – Verbal Cloze Exercises are used in the Moreton Bay Story. The questions focus around the containment of pets, planting native trees (holding soil in place) and being responsible with waste/litter
- 5 **Keepers' Challenge** - Ocean Crusaders litter collection days. If a student attends a litter collection day and notifies the centre a Keeper's bumper sticker will be won.

Healthy Waterways Badge and Bin it to Win it Sticker given as motivation.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science – [Growing for butterflies](#) Year 2 program



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



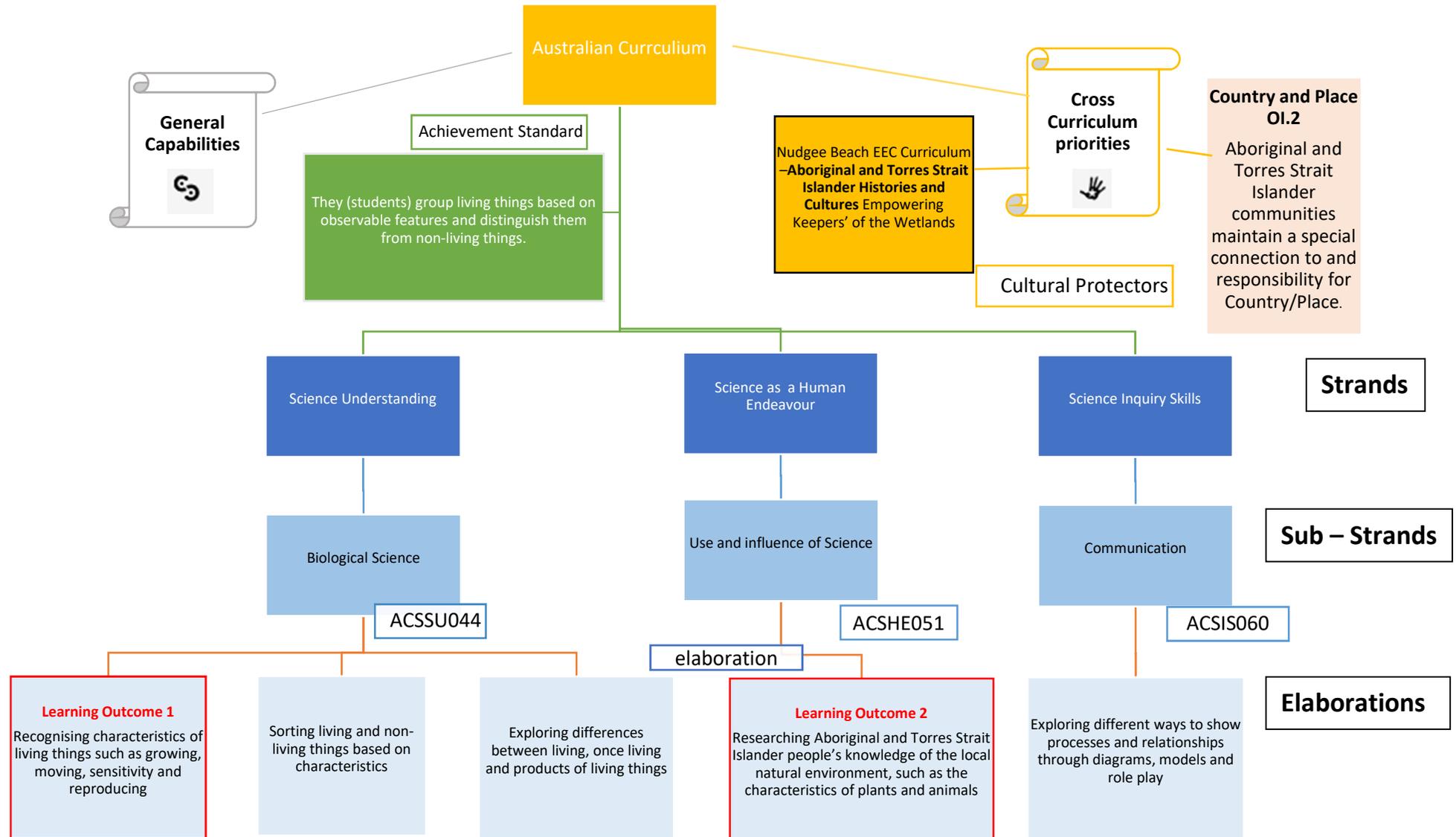
Assessment Overview – Year 2.

1. **Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
2. **Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
3. **Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
 1. **Formative Assessment** – Formative Assessment- In small groups' students will sort cards illustrating the life cycle of a mud crab onto a placemat (knowledge gained at NBEEC). On a different placemat students will sort cards to illustrate their understanding of the life cycle of a birdwing butterfly (prior knowledge school based).
4. **Keepers' Challenge** - Students are challenged to do number 12 of the activities on the back page of the Nature Play Booklet, which is to Plant a Tree and watch it grow. Each student is given a Nature Play Passport and a 'Growing for Butterflies' sticker for motivation.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science – [Is it Living? Seeing Through Both Eyes](#) Year 3 program



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Assessment Overview – Year 3.

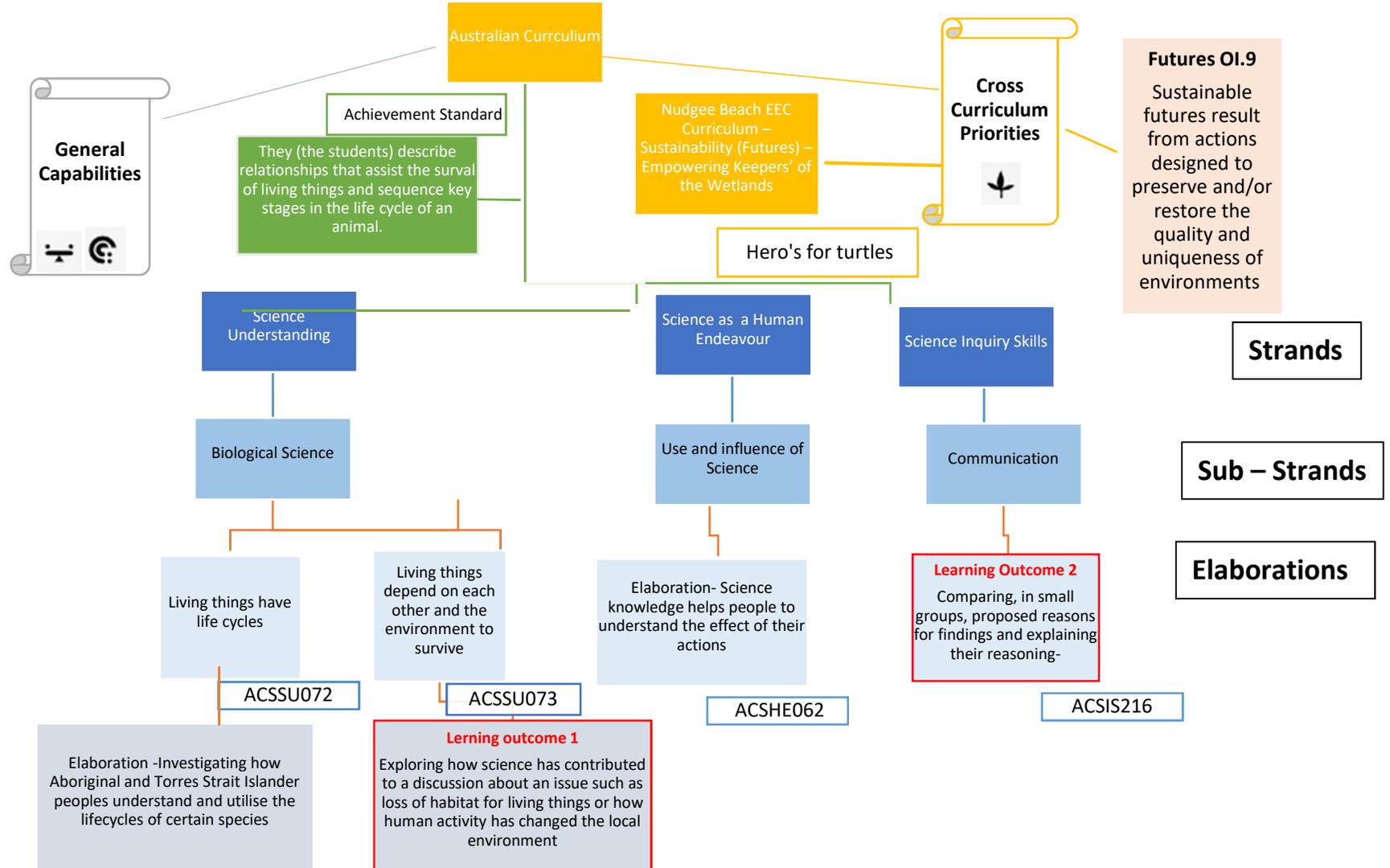
- 1 Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
- 3 Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
- 4 Formative Assessment** – Students use their prior and NBEEC gained knowledge to inform the way they sort cards with images of sites, plants and animals onto placemats. One placemat requires the students to sort the cards under scientific headings and the other under Indigenous headings.
- 5 Keepers' Challenge** – Students are given a Nature Play Passport as a challenge to explore Aboriginal Cultural Heritage sites in their local area.

Students are provided with a Nature Play Password to record their challenges.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science - Endangered Species – Turtle Hero's Year 4 program



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Assessment Overview – Year 4.

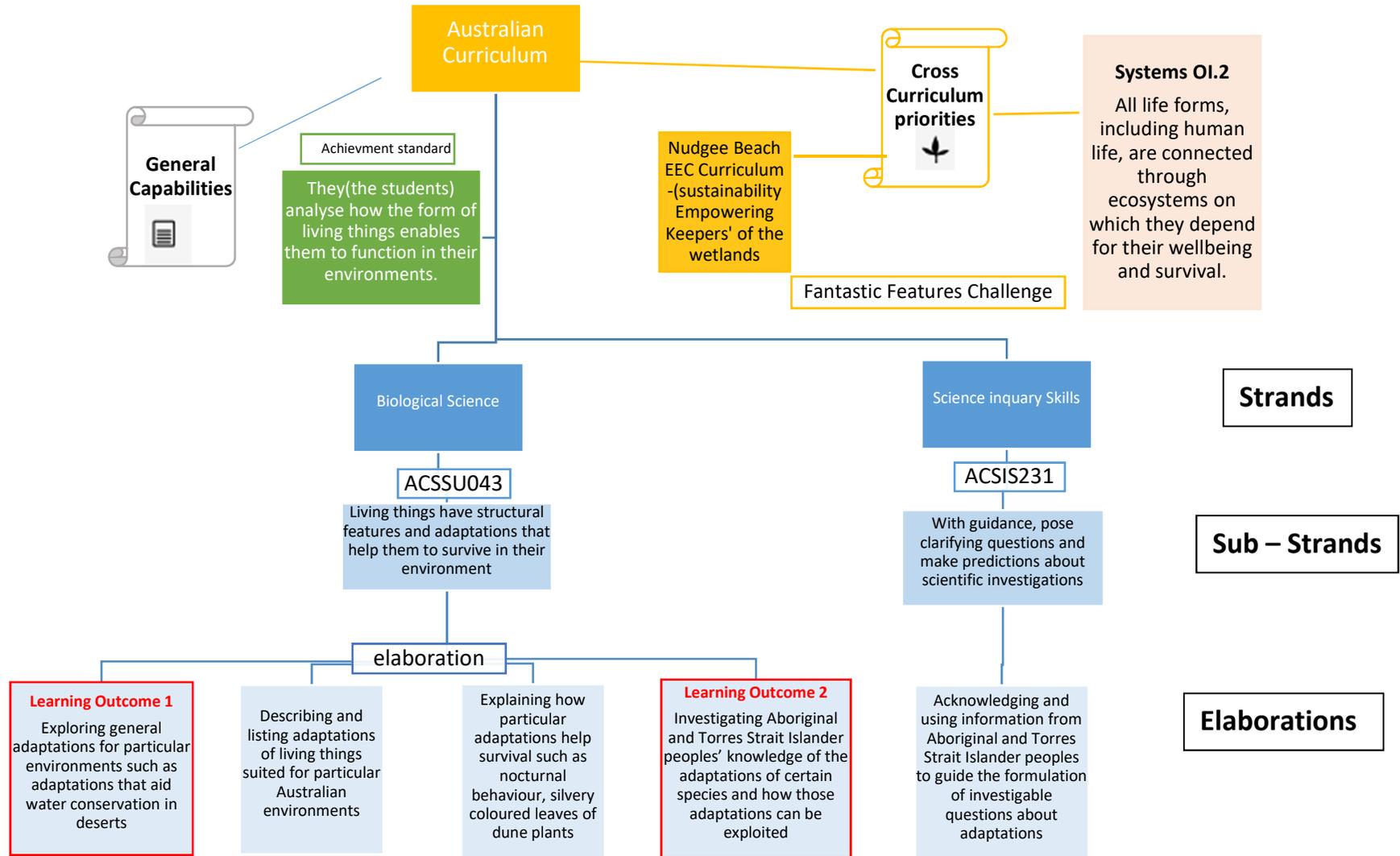
- 1 **Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 **Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
- 3 **Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
 1. **Formative Assessment** – At beginning of day students draw or write what they think has caused the loggerhead turtle to become endangered. Students are to write their name with their work. At the end of the day students are asked to revise their original prediction as to what has caused the decline in loggerhead turtle numbers.
 2. **Keepers' Challenge** – Students are challenged to pick up rubbish on weekends and on holidays and to visit the Turtle rookery at Mon Repos or the March Museum turtle hatching event.

Students are provided with a Nature Play Password to record their challenges.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science – [Fantastic Features](#) Year 5 program



Assessment Overview – Year 5.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview

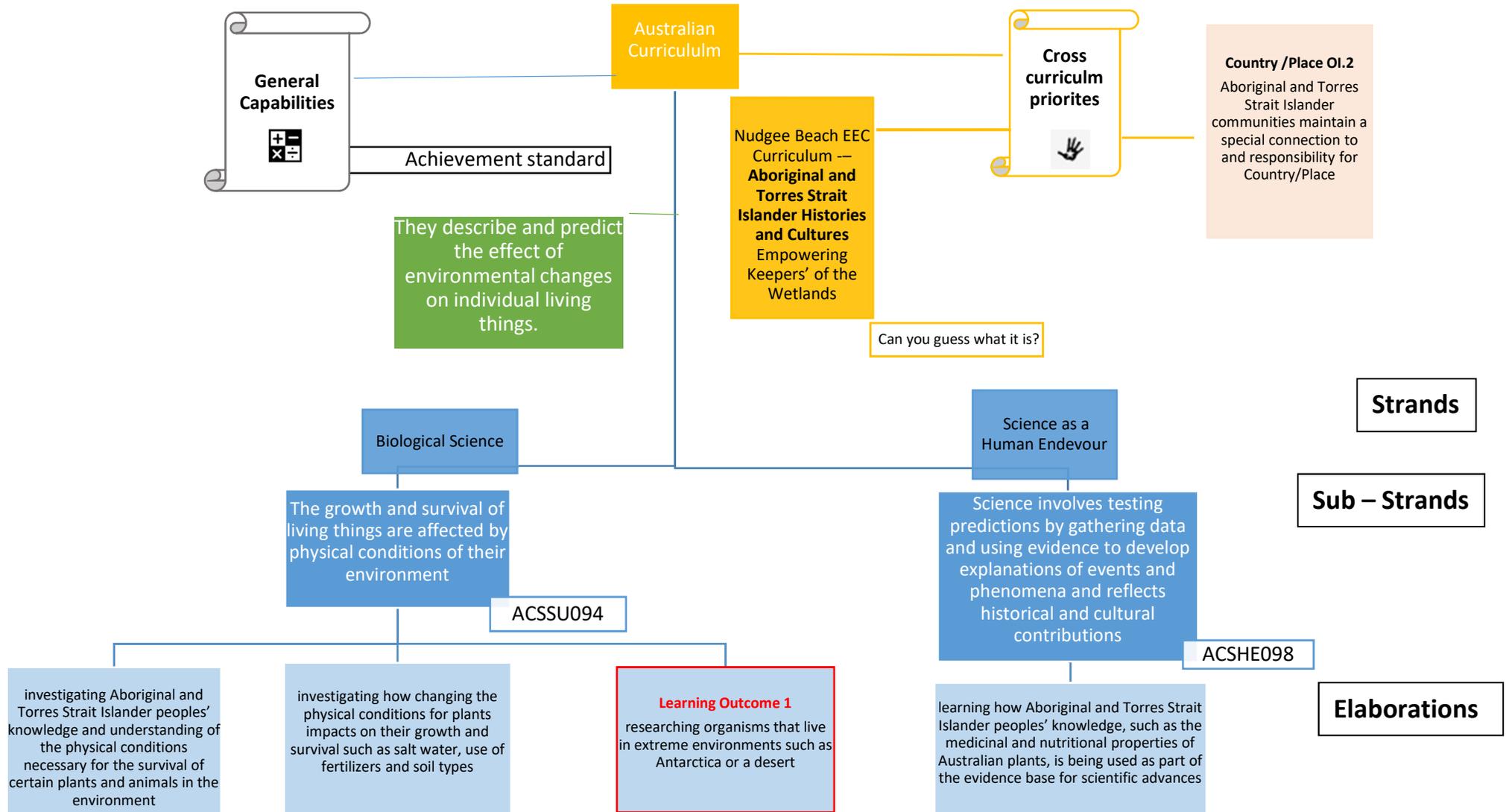


- 1 Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 Visiting Parent Survey** – A sample group of parents are provided with the centre Ipads to complete the online survey to gain insight from parents accompanying student groups.
- 3 Visiting Student Survey**- A sample group of students will be randomly chosen. Each student is provided with a centre Ipads to complete the online survey to gain insight about the program from students who visit the centre.
- 4 Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
- 5 Formative Assessment** – Photo images of the completed food chains and food webs are used alongside the teacher feedback to assist in understanding how students have met the outcomes of the day which include; *Food chains and complex food webs are constructed from first hand observation of plants and animals which are identified using keys. How we as humans impact on this ecosystem and its life is also identified.*
- 6 Keepers' Challenge** – Students are encouraged to look for structural adaptations and behavioural adaptations of plants and animals you see in marine environments and send them through to the centre.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science –Extreme Environments Year 6 program



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



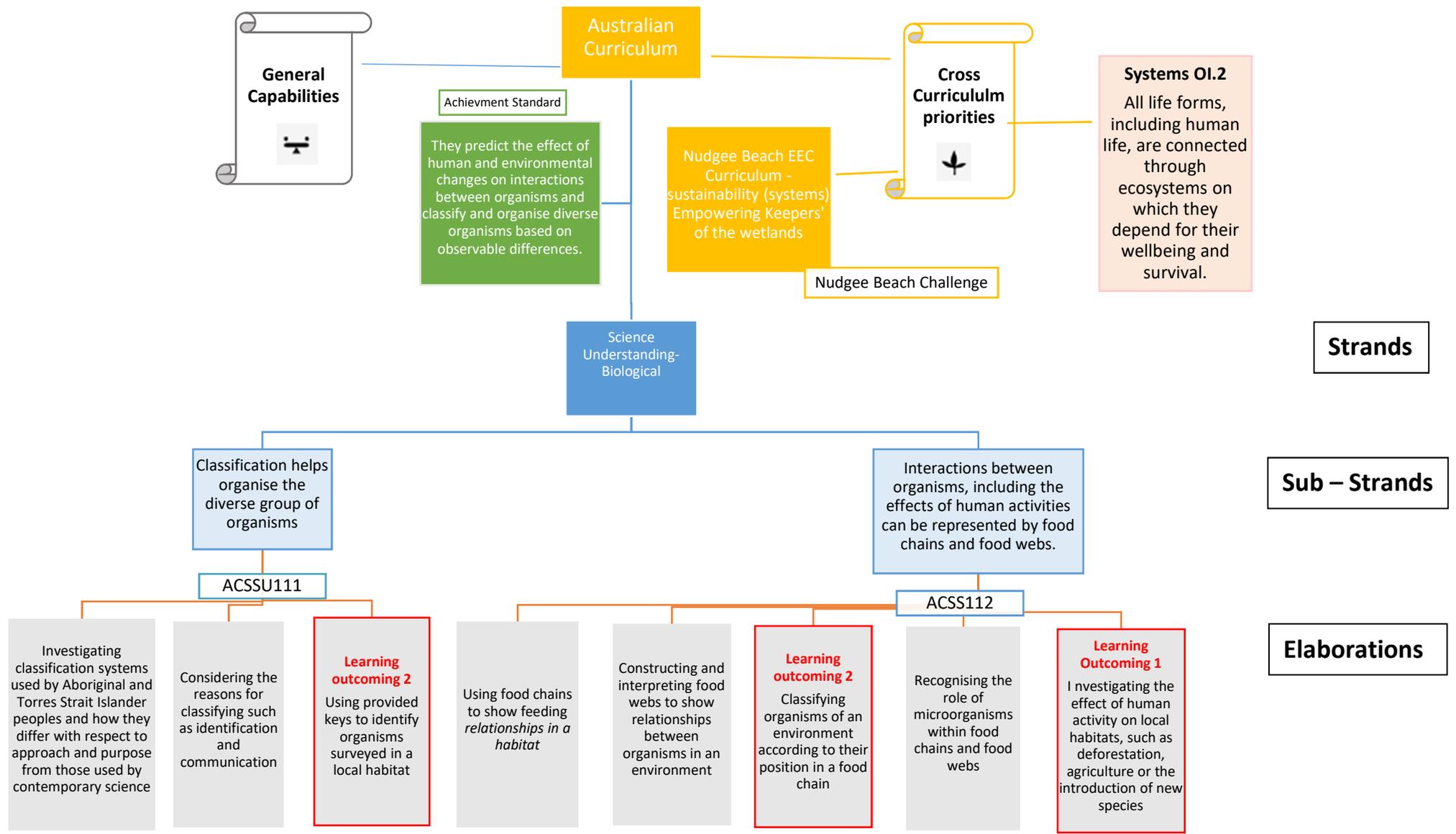
Assessment Overview – Year 6.

- 1 Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 Visiting Student Survey**- A sample group of students will be randomly chosen. Each student is provided with a centre Ipad to complete the online survey to gain insight about the program from students who visit the centre.
- 3 Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
- 4 Formative Assessment** –. Students are presented with several objects and plants at the beginning of the day each one of these plants the students then predict a possible use.
- 5 Keepers' Challenge** – Students are challenged to grow 2 useful native plants for either food or wildlife.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning area Science - [Nudgee Beach Challenge –Who Eats Who](#) Year 7 program



Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



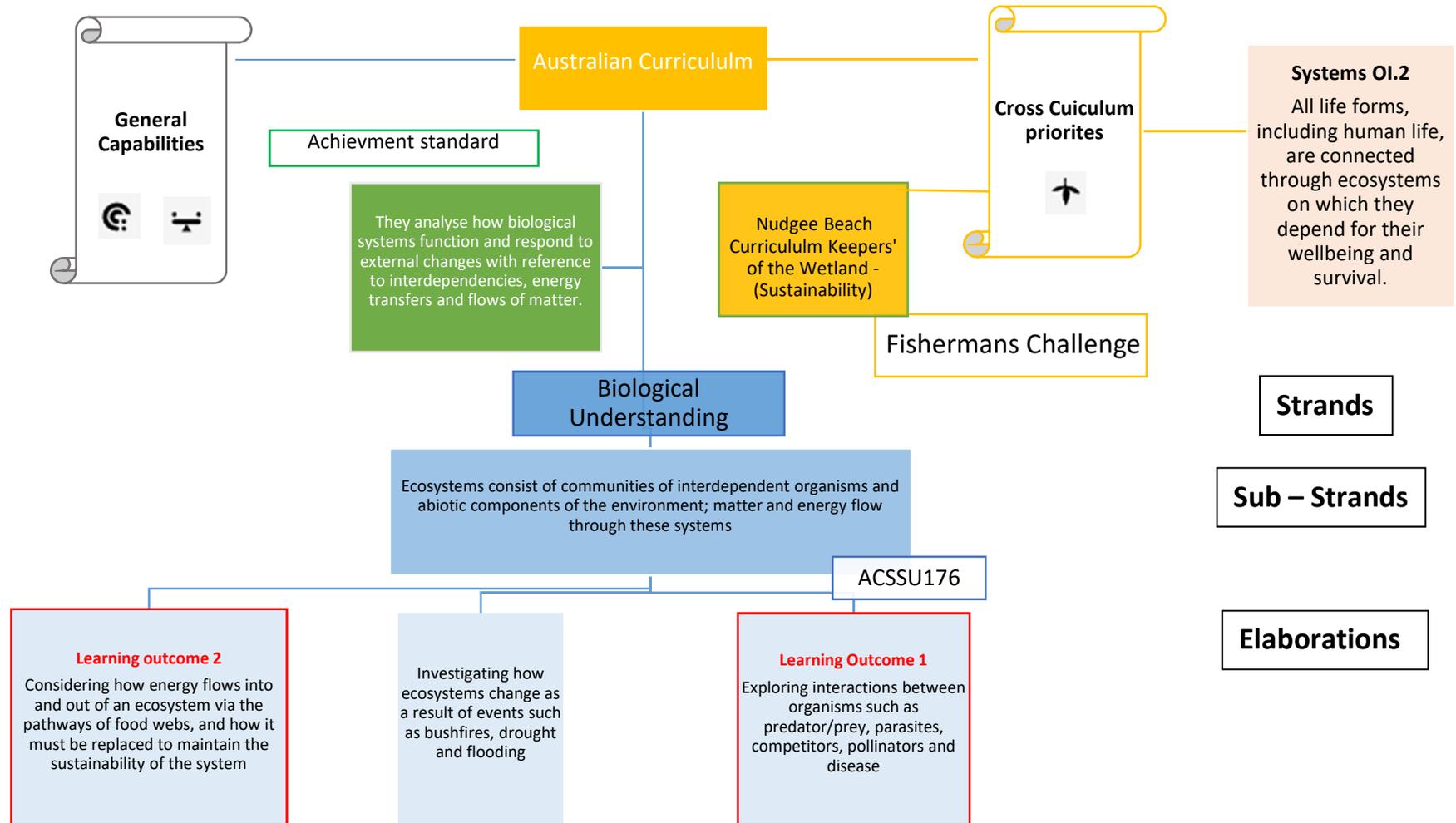
Assessment Overview – Year 7.

- 1 Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 Visiting Student Survey**- A sample group of students will be randomly chosen. Each student is provided with a centre Ipad to complete the online survey to gain insight about the program from students who visit the centre.
- 3 Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.
- 4 Formative Assessment** – Students are presented with a series of challenges throughout the day – Use the Dichotomous key to identify 2 mangroves, Identify 6 species organisms on the foreshore etc. These challenges are checked by the centre teacher and groups who complete each level of the challenge are recorded by the classroom teacher.
- 5 Keepers’ Challenge** –Twitch it -Students can choose to take up the challenge if they wish to find more birds. If they want to look for birds they can collect a booklet or using an app “Birds of Australia” bird challenge on shorebirds and send result to the centre teachers on info@nudgeebeacheec.eq.edu.au. The challenge is to finding 5 shorebirds; they then use social media to record their “twitching” and post on the NBEEC Facebook site. The students are then rewarded with a NBEEC bumper sticker which is sent to their school for presentation by their class teacher.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Learning Area Science— [Marine Ecosystems](#) Year 9 program





Assessment Overview – Year 9.

- 1 Visiting Teacher Survey** – Visiting Teacher has their email collected while on site by admin staff. Admin staff then email this to the visiting teacher.
- 2 Visiting Student Survey**- A sample group of students will be randomly chosen. Each student is provided with a centre Ipad to complete the online survey to gain insight about the program from students who visit the centre.
- 3 Centre Teacher Feedback** – This assessment is for the whole class and is an overview of how the centre teacher thought the class group worked while on site. If completed correctly the continuum and the background to feedback is sent in advance, so the class is aware the assessment is taking place. This feedback is based around the achievement standard for the year level.

Formative Assessment – What does ethical Interactions look write it and enact it:

- Returning creatures to the where they were found
 - Handling creatures with care
 - Walking attentively and with care through the mangroves
 - Having the intent of minimal disturbance
 - Making a concerted effort to listen carefully to directions
- 4 Keepers' Challenge** –Fisherman's Challenges – students are challenged to go fishing and catch a fish that is legal and post the photo on social media to centre staff.

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Year 9/ 10 Geography- Managing Moreton Bay Marine park/ Boondall wetlands or the Airport

Program Aim: Geography: Managing Boondall Wetlands or Managing Moreton Bay Marine Park - Year 10

Students explore the issues and managements strategies used to manage one of Brisbane’s largest natural areas, the strategies and reasons for the park and its zoning.

Unit 1: Environmental change and management

Human-induced environmental changes that challenge sustainability ([ACHGK070](#))

- discussing the concept of sustainability in relation to environmental functions

The Aboriginal and Torres Strait Islander Peoples’ approaches to custodial responsibility and environmental management in different regions of Australia ([ACHGK072](#))

Select ONE of the following types of environment as the context for study: land (e.g. forests, deserts, grasslands, farmland), inland water, coast, marine or urban. A comparative study of examples selected from Australia and at least one other country should be included.

The application of systems thinking to understanding the causes and likely consequences of the environmental change being investigated ([ACHGK073](#))
Elaborations

The application of environmental economic and social criteria in evaluating management responses to the change

Nudgee Beach Environmental Education Centre Curriculum Assessment and Reporting Overview



Senior Biology (2019 Syllabus v1.2)

The program supports completion of the mandatory practicals and the internal assessment (IA2) student experiment from Unit 3 (Biodiversity and the interconnectedness of life). Students will investigate and evaluate the Moreton Bay Marine Park zonation plan at Nudgee Beach by modifying current experimental methodologies and collecting of primary data. The whole day program allows students to elect to compare either (i) a chosen fauna species distribution on the sandflats or (ii) the mangrove forest species distribution and abundance. Students have the opportunity at Nudgee Beach to move between both the habitat protection zone and marine national park zone.

During this field study students will;

- **Recognise** that biodiversity includes the diversity of species and ecosystems.
- **Investigation** of environmental factors limiting the distribution and abundance of species in an ecosystem
- **Use** a range of Techniques for identifying organisms (e.g. keys and field guides)
- **Determine** the diversity within a mangrove ecosystem
- **Use** sampling techniques (e.g. transects, quadrats)
- **Measure** of species richness and evenness (relative species abundance)
- **Use** a variety of appropriate technologies, such as data loggers, soil pH testing kits, inclinometers to measure canopy height and other equipment to measure abiotic factors in the field.
- **Analyse** species diversity indices, forest condition scores and abiotic data (soil pH, air temperature, soil temperature, soil moisture, humidity and light intensity) to compare ecosystems.
- **Explain** how environmental factors limit the distribution and abundance of species in an ecosystem.
- **Evaluate** the condition of the ecosystems using data collected from the field.
- **Interpretation** of data to classify and name an ecosystem
- **Evaluation** of strengths and limitations of data collection methodologies
- **Investigate** ecosystem dynamics including interactions with and between species and interactions between abiotic and biotic components of the mangrove or sandflats ecosystems.
- **Determine** diversity of species using measures such as species richness, evenness, percentage cover, percentage frequency.
- **Select and appraise** an ecological surveying technique to analyse species diversity between two spatially variant ecosystems of the same classification.

Pre-program support

During pre-program activities students will be given a base study done by the staff at Nudgee Beach Environmental Education Centre that involves ecological sampling and analytical techniques relative to the study context (e.g. mangroves or sandflats). Students will become familiar with this study, equipment and data collection protocols maximising independent participation on program day. From this students will formulating research questions and a modified methodology that investigates the zonation plan of the Nudgee Beach section of the Moreton Bay Marine Park.

Post-program support

Students will be provided with a field study, set of primary data (qualitative and quantitative) and information that they can interpret, analysis, evaluate, extrapolate and directly apply to successfully complete a high level student experiment (IA2)



Senior Geography (2019 syllabus v1.2)

This program supports senior geography students completing unit 3, topic 2 (Responding to land cover transformations; Responding to local land cover transformations). Students will investigate a local land or water management at Nudgee Beach through a field investigation that relies on the collection of primary data and information which can be directly aligned to internal assessment 2 (IA2). This whole day program allows schools to choose between foreshore plant communities, invasive weeds, litter, water quality analysis, and land management (erosion) focus for their internal assessment.

During this field study students will;

- Examine the geographical processes that result in land cover change at a local level and how these processes shape the identity of Nudgee Beach
- Use the geographical inquiry model to develop a plan and carry out an investigation on how to manage local land cover
- Identify the methodology to be used, data required and appropriate methods for data collection
- Collect primary data on plant communities, invasive weeds, water and land quality e.g.
 - Water quality
 - Water volume and flood levels
 - Abiotic and biotic factors
 - Weed invasion and revegetation strategies
- Consider development changes and impact issues in relation to schools chosen focus (plant communities, invasive weeds, water quality analysis, and land management)
- Comprehend geographical patterns by recognising spatial patterns of land cover change at a local scale, identifying relationships and implications for people and places
- Analyses geographic data and information by selecting and interpreting fieldwork data to infer how patterns, trends and relationships represent a geographical challenge for Nudgee beach.

Pre-program support

During pre-program activities students will use aerial photo, maps and tests to become familiar with the area of Nudgee Beach as well as the methodology and equipment used for data collection. Using this qualitative and quantitative data students will be challenged to identify issues of concern at Nudgee Beach. They will do this by formulate a research question in relation to the urbanisation and management strategies for the habitat protection and general purpose zone of Nudgee Beach section of Moreton bay national park providing them focus when collecting data in the field.

Post –program support

Students will be provided with a set of primary data (qualitative and quantitative) and information that they can select, interpret, extrapolate and directly apply to successfully complete a high level field report (IA2)