

Linking Interoception to the Australian Curriculum, General Capabilities and embedding in classroom practices

V1.1 March 2019

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REVISION RECORD				
Version	Approved by	Approved date	Review date	Amendments
V1.1	Dr Emma Goodall	March 2019	March 2022	Updated template
V1.0	Dr Emma Goodall	November 2017	November 2020	Guide developed

1. Australian curriculum

1.1 Learning area | English

Learning area English (vocab, positional language, attaching meaning to words, language, handwriting)			
Year level	Strand	Sub-strand & Thread	Elaboration (interoception)
Foundation	Language	Language for interaction Understand that language can be used to explore ways of expressing needs, likes and dislikes (ACELA1429)	Recognising some of the ways we can use speech, gesture, writing and media to communicate feelings. Explicitly teach vocabulary for interoception including movement words, body words and descriptive words ie <i>“stretch your fingers out and feel the muscles in your hand tense, now relax your fingers”</i> – webbing, joints, palm, wrist
Year 3	Literacy	Creating texts Write using joined letters that are clearly formed and consistent in size (ACELY 1684)	Practising how to join letters to construct a fluent handwriting style. Use hand exercises to increase interoceptive awareness of hand muscles, rest and “wriggle” hands frequently and begin to notice if/when the hand becomes tired and where is it becoming tired?, focus the exercises on those parts of the hand to increase awareness and reduce hand fatigue
Year 6	Language	Expressing and developing ideas Investigate how vocabulary choices, including evaluative language can express shades of meaning, feeling and opinion (ACELA 1525)	Identifying the ways in which evaluative language is used to assess the qualities of the various aspects of the work in question. Evaluate texts which appeal to the readers’ senses to develop a picture, discuss how the use of this language can create a feeling, create a text using internal senses to describe an event or feeling <i>“he felt his stomach begin to swirl around in circles like ripples on a lake, and he knew his anxiety was beginning to build”</i>
Year 9	Literacy	Interacting with others Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for aesthetic and playful purposes (ACELY1741)	Use graphics and text animations to accompany spoken text. Students can create a fun presentation on interoception activities/wee/poo charts to deliver to peers or a younger audience

1.2 Learning area | Mathematics

Learning area | Mathematics (position/movement, time, data collection, graphing, data analysis, number, counting)

Year level	Strand	Sub-strand & Thread	Elaboration (interoception)
Foundation	Statistics & Probability	Data representation and interpretation Answer yes/no questions to collect information and make simple inferences (ACMSP011)	Using data displays to answer simple questions <i>How many students had a heart rate above 90 after a run around the oval?</i>
Year 3	Measurement & Geometry	Using units of measurement Tell time to the minute and investigate the relationship between units of time (ACMMG062)	Recognising there are 60 minutes in an hour and 60 seconds in a minute Use a smartboard timer when doing an interoception activity so students get a sense of how long 30 seconds is, what it looks like and feels like
Year 6	Number & Algebra	Number and place value Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers (ACMNA123)	Applying a range of strategies to solve realistic problems and commenting on the efficiency of different strategies Create problems using heart rate data or time/interoception activities ie: <i>"If Ms Smith's class did six interoception activities each day and each activity lasted 60 seconds, how many minutes per day did the class do interoception activities for?"</i> or <i>"Using the graph which maps your heart rate over a week, answer the following questions.....How many times did your heart rate rise to over 80 beats per minute? What time of the day did your heart rate increase to the highest rate?"</i>
Year 9	Statistics & Probability	Data representation and interpretation Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location and spread (ACMSP283)	Comparing means, medians and ranges of two sets of numerical data which have been displayed using histograms, dot plots, or stem and leaf plots Use heart rate data

1.3 Learning area | Science

Learning area Science (how body works, nervous system, healthy body, digestive system, Biology, neuroscience)			
Year level	Strand	Sub-strand & Thread	Elaboration (interoception)
Foundation	Science Understanding	Biological sciences Living things have basic needs, including food and water (ACSSU02)	Identifying the needs of humans such as warmth, food and water, using students' own experiences Introduce the 'poo' and 'wee' charts and discuss how the human body needs different nutrients and water to keep it healthy and working effectively
Year 3	Science understanding	Physical sciences Heat can be produced in many ways and can move from one object to another (ACSSU049)	Describing how heat can be produced such as through friction or motion, electricity or chemically Use the interoception activities around temperature to discuss the changes that occur when you use friction – rubbing hands together, or when you use heat and the freezer with a paperclip
Year 6	Science inquiry skills	Communicating Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-model texts (AC SIS110)	Discussing the best way to communicate science ideas and what should be considered when planning a text <i>How would you communicate the effect of what you eat and drink on your body to a younger audience?</i>
Year 9	Science understanding	Biological sciences Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment (ACSSU175)	Describing how the requirements for life (e.g. oxygen, nutrients, water and removal of waste) are provided through the coordinated function of body systems such as the respiratory, circulatory, digestive, nervous and excretory systems. Explaining how body systems work together to maintain a functioning body using models, flow diagrams or simulations. Interoception is a big part of all of this and many of the activities can be used to focus students in to what is happening inside of their bodies.

1.4 Learning area | Health and PE

Learning area Health and PE (keeping healthy, food & nutrition, relationships, heart rate and warm ups)			
Year level	Strand	Sub-strand & Thread	Elaboration (interoception)
Foundation	Personal, social and community health	<p>Communicating and interacting for health and wellbeing</p> <p>Identify and describe emotional responses people may experience in different situations (ACPPS005)</p>	<p>Identifying and describing the emotions of people who are happy, sad, excited, tired, angry, scared or confused. Talking about connections between feelings, body reactions and body language.</p> <p>Rather than just focusing on what faces might look like when experiencing those emotions or what external event might cause the student to feel that emotion. Focus on what those emotions look like for individual students and what those emotions feel like on the inside for individual students. <i>How do they know what scared looks and feels like for them, what are their body's signals that they are feeling that emotion?</i></p>
Year 3	Personal, social and community health	<p>Being healthy, safe and active</p> <p>Describe and apply strategies that can be used in situation that make them feel uncomfortable or unsafe (ACPPS035)</p>	<p>Recognising physical responses that indicate they are feeling uncomfortable or unsafe. Discuss individual body signals that indicate when the student is feeling unsafe or uncomfortable, talk about how they might respond to these body signals and what emotion they might be associated with.</p>
Year 6	Movement and physical activity	<p>Learning through movement</p> <p>Apply critical and creative thinking processes in order to generate and assess solutions to movement challenges (ACPMP068)</p>	<p>Applying movement skills and strategies from other contexts to generate a solution to unfamiliar movement challenge. Use rhythmic and expressive movement activities such as yoga and tai chi to focus on how movement can be composed and performed in response to beats, sounds, images, words, themes.</p>
Year 9	Personal, social and community health	<p>Communicating and interacting for health and wellbeing</p> <p>Evaluate situations and propose appropriate emotional responses and then reflect on possible outcomes of different responses (ACPPS094)</p>	<p>Evaluating situations where an individual may react with extreme emotion and reflecting on the impact this response may have on the situation and/or their relationships. Elaborate by discussing the role of the autonomic nervous system in activating a sympathetic nervous system response to a perceived danger. What this might look like and how this could be prevented by activating a parasympathetic nervous response using breathing or other interoception.</p>

1.5 Learning area | The Arts

Learning area The Arts (breathing for music, drama, dance)			
Year level	Strand	Sub-strand & Thread	Elaboration (interoception)
Foundation – Year 2	Dance	<p>Understand how dance works</p> <p>Students develop body awareness and technical and expressive skills to communicate through movement confidently, creatively and intelligently.</p>	<p>Learning in dance: the body is the instrument of expression and uses combinations of the elements of dance to communicate and express meaning through expressive and purposeful movement. What do our bodies feel like when we experience different emotions, tense our bodies up to feel scared, relax our bodies to feel happy.</p>
Year 3/4	Drama	<p>Understand how drama works</p> <p>Use voice, body, movement and language to sustain role and relationships and create dramatic action with sense of time and place (ACADRM032)</p>	<p>Experimenting with the loudness/softness, pace and pitch of their voices to create roles and situations, time and place. Practise using different voices, use an iPad app to record voice and change pitch, sound level, pace using the app.</p> <p>Varying facial expressions and movements to create roles and situations. Watch movies and discuss the facial expressions/body language of the characters. <i>What does it feel like when we move our faces and bodies that way?</i> Animated movies like Shrek make great examples.</p>
Year 5/6	Dance	<p>Understand how dance works</p> <p>Develop technical and expressive skills in fundamental movements including body control, accuracy, alignment, strength, balance and coordination (ACADAM010)</p>	<p>Rehearsing a combination of fundamental movements with or without accompaniment to refine technical and expressive skills, ie galloping, jumping, sliding, rolling, slithering, spinning, shrinking, exploding, and collapsing.</p> <p>Use animals as examples to move in different ways, focusing on different parts of the body. <i>When we slither like a snake does your whole body touch the floor?</i></p>
Year 9/10	Drama	<p>Understand how drama works</p> <p>Practise and refine the expressive capacity of voice and movement to communicate ideas and dramatic action in a range of forms, styles and performance spaces, including exploration of those developed by Aboriginal and Torres Strait Islander dramatists (ACADRM049)</p>	<p>Adapting expressive voice and movement skills for performance of different forms and styles and to enhance actor-audience relationships.</p> <p>Create a dramatic performance and focus on portraying particular emotions in characters, feel the difference in your face and body when displaying different emotions, use mirror and recordings to reflect on what the face muscles and body is doing during the performances.</p>

2. General capabilities

2.1 Capability | Personal and Social

Capability | Personal and Social: developing an awareness of their own emotional states, needs and perspectives

Some students may not have mastered these skills at the typical year level but require ongoing skill development throughout their education

Element	Goals	Level	Interoception link
Self-awareness	<i>Recognise emotions</i>	1a – recognise and identify their own emotions.	Before labelling emotions, students need to understand how an emotion feels for them.
	<i>Recognise personal qualities and achievements</i>	1b – identify their likes and dislikes, needs and wants, and explore what influences these.	Sensory differences play an important role in determining how many students react in certain contexts. How do smells, tastes, noises, textures, lights, etc. impact on individual students?
	<i>Understand themselves as learners</i>	1b – identify their abilities, talents and interests as learners.	What topic are students most passionate about? What makes them feel good about themselves? Adults can observe students and identify the activity/topic that the student becomes most absorbed in (in the zone!)
	<i>Develop reflective practice</i>	1a – recognise and identify participation in or completion of a task.	What does participation or task completion look like for different students according to their different abilities or learning styles? How can we adapt the environment, curriculum or instruction so we create an inclusive environment which enables students to feel less anxious?
Self-management	<i>Express emotions appropriately</i>	1a – recognise and identify how their emotions influence the way they feel and act.	When we begin to identify our body's signals, we use our cortex to respond to a need (physical or emotional). If we don't notice the signals, we don't respond to the need and we react according to signals from our amygdala instead (fight, flight, and freeze).
	<i>Develop self-discipline and set goals</i>	1a – make a choice to participate in a class activity.	Create activities which motivate and appeal to students who may choose not to participate for a variety of reasons (not interested in topic, too hard, too easy, can't see the purpose in the task). Use the student's passion, connect with another learning area of interest, or give two choices.

Element	Goals	Level	Interoception link
Self-management <i>(cont.)</i>	<i>Work independently and show initiative</i>	1b – attempt tasks independently and identify when and from whom help can be sought.	Create an atmosphere in the classroom where students feel comfortable asking for help. This may not be verbally as a student may be too anxious to ask or lose the ability to speak when anxious, give an alternative (red/green strip).
	<i>Become confident, resilient and adaptable</i>	1b – identify situations that feel safe or unsafe, approaching new situations with confidence.	How does their body signal when they feel unsafe/safe? What are some of the first signs that they feel unsafe/safe?
Social awareness	<i>Appreciate diverse perspectives</i>	1b – acknowledge that people hold many points of view.	Identify how others think and feel and show emotion and recognise that others share similar internal feelings when experiencing an emotion.
	<i>Contribute to civil society</i>	2 – describe how they contribute to their homes, classrooms and local communities, and how others care for and assist them.	Identify what drives people to help others and want to care for and assist them. Those signals in our bodies that drive us to respond in certain ways or identify when others need help (empathy). That little “tug on the heart strings” or that “gut feeling” that something is not okay or another person or thing needs help. Be aware that explicit explanations may need to be given to those on the autism spectrum when using metaphorical language.
	<i>Understand relationships</i>	1b – explore relationships through play and group experiences.	Think about the language and behaviours that make up a successful team or how working together can achieve goals. How does language and behaviour affect how teams/groups function? Why? How does it make someone else feel on the inside (not just an emotion label but physically feel) when someone says or does something they don't like?
Social management	<i>Communicate effectively</i>	1a – respond to the feelings, needs and interests of others.	How do we recognise when others are experiencing an emotion when we can't see it on the outside? Discuss how people might have different interests and that “inside feeling” we get when we are doing something we enjoy is how others might feel when they are doing something they enjoy.

Element	Goals	Level	Interoception link
Social management <i>(cont.)</i>	<i>Work collaboratively</i>	1b – share experiences of cooperation in play and group activities.	Discuss how children/students feel on the inside when others don't share something or give you a turn? What does it mean to share and take a turn, what skills do they involve (waiting, time, recognition that other people exist and have thoughts and feelings). Break the task down and focus on developing individual skills.
	<i>Make decisions</i>	1b – identify options when making decisions to meet their needs and the needs of others.	Discuss, model and role play scenarios related to making decisions and the impact that those decisions have on the feelings/emotions of self and others. Concentrate on the internal signals that indicate how a decision makes us and others feel.
	<i>Negotiate and resolve conflict</i>	2 – practise solving interpersonal problems, recognising there are many ways to solve conflict.	What is conflict? What does conflict feel like/look like/sound like? How do I recognise when a conflict has occurred? If it's difficult for the child/student to recognise when they are experiencing conflict, what cues might they look for in themselves and others?
	<i>Develop leadership skills</i>	2 – discuss ways in which they can take responsibility for their own actions.	Using a smartwatch to identify when their heart rate increases, then choose an interoception activity which calms the nervous system.

2.2 Capability | Ethical understanding

Capability | Ethical Understanding: identify and investigate the nature of ethical concepts, values and character traits, and understand how reasoning can assist ethical judgement.

Some students may not have mastered these skills at the typical year level but require ongoing skill development throughout their education.

Element	Goals	Level	Interoception link
Understanding ethical concepts and issues	<i>Recognise Ethical concepts</i>	1 – identify ethical concepts arising in familiar contexts, such as good and bad behaviours.	What makes up a good or bad behaviour? How do we know when we have chosen the correct behaviour? What does it look/sound/feel like for us and others when the correct behaviour is chosen? Who decides what a good or bad behaviour is? Collaborate with children/students and democratically decide which behaviours will be included.
	<i>Explore ethical concepts in context</i>	2 – describe ethical concepts such as right and wrong, honesty, fairness and tolerance.	Discuss these concepts and list ways these may be displayed. Talk about why these concepts are important to society and how it makes people feel (internally) when each of these is displayed (i.e. being honest and telling the truth when you have done something wrong may make you feel uncomfortable – tummy swirly, hot, sweaty – but it is still the right thing to do).
Reasoning in decision making and actions	<i>Reason and make ethical decisions</i>	2 – discuss how people make decisions about their actions and offer reasons why people's decisions differ.	How do we identify what are the right decisions to make? How does it feel on the inside when we make the wrong decision? What drives some people to make the decisions they do (don't recognise the internal body signals telling them it doesn't feel right)?
	<i>Develop self-discipline and set goals</i>	1a – make a choice to participate in a class activity.	Create activities which motivate and appeal to students who may choose not to participate for a variety of reasons (not interested in topic, too hard, too easy, can't see the purpose in the task). Use the student's passion, connect with another learning area of interest, or give two choices.
	<i>Consider consequences</i>	1 – identify links between emotions and behaviours.	Discuss the difference between the sympathetic and parasympathetic nervous system responses. What is the difference between each response and how are they displayed in our behaviour. Talk about the different parts of the brain (Cortex and Amygdala) and which one we use consciously and which one drives our survival behaviour response (fight, flight, and freeze).

Element	Goals	Level	Interoception link
Reasoning in decision making and actions <i>(cont.)</i>	<i>Reflect on ethical action</i>	2 – give examples of how understanding situations can influence the way people act.	Talk to children/students about how people sometimes misunderstand what they hear and see. They then respond/react in particular ways. Discuss ways in which they could check they have understood a situation correctly or how to clarify something with another person (what language to use).
Exploring values, rights and responsibilities	<i>Examine values</i>	1 – identify values that are important to them.	Use lines or corners of a room to give an example of how people’s values can differ. As a class or school, discuss the school values, what they mean, what they look like and how they might feel to the child/student and others when actively displayed.
	<i>Explore rights and responsibilities</i>	1 – share examples of rights and responsibilities in given situations.	Share examples and discuss the internal feelings involved by all parties in given situations. Role model situations and act out different endings, those that take into account the rights and responsibilities and another which doesn’t. What difference does it make when we recognise the rights and responsibilities of others?
	<i>Consider points of view</i>	1 – express their own point of view and listen to the views of others.	What is the most appropriate way of expressing our own point of view? What impact do our words have on the way others feel on the inside? What does it look like when we listen to the views of others and how do we react when they differ from our own views?

3. Embedding interoception in classroom practices

Classroom activity	Interoception activity
Arrive at school	Student may go directly to the interoception room on arrival at school. Have activities on the classroom door so students can see them.
Line up before the bell goes	Hand stretch, foot stretch, breathing can all be done with no concrete materials needed. Have activity cards attached to the door handle or in a basket outside the door. Allocate a monitor who will lead the morning interoception activity while waiting for the teacher to open the classroom door. If the door is open already, have activities ready close to the door for each student to do before they begin unpacking their bag.
Group time on floor	Talk to students about the temperature outside today and what impact that might have on their body temperature. Explain what they might need to do to regulate their body temperature (i.e. notice when their face is becoming red or sweaty and take off their windcheater) Take note of heart rates and record on a class or individual chart. Breathing exercises lying down with a light beanbag or block on their chest. Volcano breathing exercise.
Fitness	Stretch muscles before exercising, where can they feel the stretch, focus on different muscle groups. After exercise, take note of heart rates and record on a class or individual chart (this can be compared with the earlier heart rate and lead into a discussion). Discuss whether students' breathing has changed or whether their bodies look and feel hot (red face, etc.)
Recess eating	Explore food through the "five senses snack" activity sheet. Record as a group or individually.
Recess play	Have a basket of activity cards set up outside or spaces around the school for students to access readily. Set up activities like walking along a line bare-foot. Have keyrings with mini activity cards for all staff to carry on them or in yard duty bags.
After recess	Breathing activities, checking temperature (do they need to take windcheater off, put it on, and/or have a drink) and heart rate (record).

Classroom activity	Interoception activity
Lunch eating	Take note of heart rates and record on a class or individual chart. Five senses snack activity. Count how many times they chew their food, can they feel the muscles in their jaw or tongue working.
Lunch play	Have a basket of activity cards set up outside or spaces around the school for students to access readily. Set up activities like walking along a line bare-foot. Have keyrings with mini activity cards for all staff to carry on them or in yard duty bags.
After lunch	Relaxation – whole body activity
End of day pack up	Sit at desk for breathing exercise before pack up
Movement breaks	Temperature - rubbing hands activity Feeling – firm versus light touch activity Feeling – muscles, pushing against a wall activity
Homework	Put activities in class newsletters, encourage students to practice activities at home
Whole school	Assembly –classes can include an interoception activity each time they lead assembly. Include information and examples of interoception activities in the school newsletter. Invite volunteers into the school to create interoception resources.
Sharing	Staff folder on the school intranet with information, resources and ideas on interoception