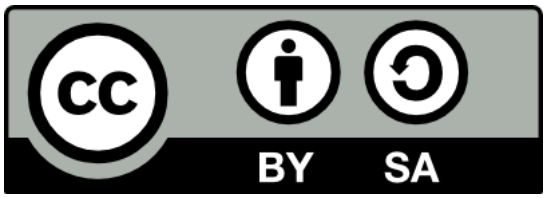
Ready to learn

Interoception kit

Government of South Australia
Department for Education



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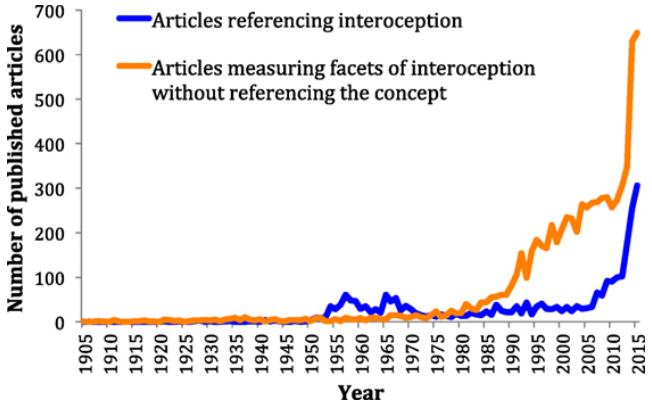
This kit contains the contents of the following:

- *Goodall, E. (2016) Interoception 101 Activity Guide, Department for Education, South Australia*
- *Lean, C., Leslie, M., Goodall, E., McCauley, M., and Heays, D. (2019) Interoception 201 Activity Guide, Department for Education, South Australia.*
- *Department for Education Interoception resources*

Preface

The first mention of interoception recorded was in 1905 by Charles Sherrington in his book; “The integrative action of the nervous system”, however there was little research until 1955 when a few papers were published. In 2010 research into interoception became more common place. In 2015, I was asked to review a Master’s thesis on interoception and autism that was being turned into a book. Kelly Mahler’s research led me on a quest to find out all I could about this topic that I hadn’t heard of previously.



Khalsa S.S., Lapidus R.C. (2016) Can Interoception Improve the Pragmatic Search for Biomarkers in Psychiatry? Frontiers in Psychiatry DOI=10.3389/fpsyt.2016.00121

Gathering research from psychology, OT and psychiatry and drawing them together in 2015 and early 2016, it was clear to me that poor and atypical interoception was a key factor in difficulties with emotional regulation and managing self. Following on from initial trials in 2016 and 2017 in South Australian schools and preschools, there are now over 100 schools and preschools in Australia and New Zealand using the interoception activities in this kit to support children and young people to improve their interoceptive awareness in order to develop self-regulation skills. In every site, children and young people, their teachers and support staff, leadership and parents and carers have reported the same results.

These results are that over a period of 8-10 weeks with regular implementation of interoception activities, individuals are more able to self-regulate their emotions, exhibit less off-task behaviours and engage in more kind and considerate behaviours. With higher levels of engagement in learning and lower levels of difficult situations in classrooms and preschools, it is evident that interoception can contribute to both the wellbeing of individuals and school/preschool improvement plans.

In 2019, it is clear that I am not alone in my fascination with interoception as there are now 15,800 published research articles and books on interoception and the links to emotional experience, expression, regulation and a myriad of aspects of wellbeing and life outcomes. Other researchers as well as a range of health and education professionals around the world are now confirming that interoception is a pre-requisite for connection to self and others, as well as the ability to self-manage and self-regulate.

For my team, it is always rewarding to hear from leaders, teachers, parents as well as individual students how interoception has positively impacted them and their schools/preschools. We strive to develop and provide training and free adaptable resources to support the easy and effective implementation of interoception across South Australian schools.

When we are thinking about emotional regulation, we need to be aware of the cultural aspects of emotional expression, wellbeing and interpersonal relationships. I have neighbours with a variety of ethnicities and each of them has a very different way of expressing emotions and interacting with their families. Our cultural values and norms can also influence how we experience everyday life, including education.

In South Australia, it is helpful to understand the big differences between the dominant cultural norms and Aboriginal Australian cultural norms. Many new migrants have both commonalities and differences with these norms. Self-regulation and well-being are more easily achieved when children and young people are comfortable in themselves in their environment. Where children and young people are expected to manage their behaviour, it is useful for their educators to understand how those individuals interpret behaviour and their bodies. Neither of these cultural values are superior, nor inferior, they are equally valid and hold true for many peoples in many countries.

For Aboriginal Australians who link time and place, mind, body and spirit, interoception can be understood as a way of integrating mind, body and spirit in ways that enable them to connect to self and so to place.

Dominant culture		Aboriginal Australian cultures
Individualism		Communal/collectivism
Singular truth • Scientific/proven evidence based • Facts versus beliefs • Separation of mind/body/spirit		Complex multiple truths • Spiritual is fact/truth • Mind/body/spirit integrated • Time is connected to place and to eternity
Materialism/consumerism • Value ownership/private property • Land has economic purpose value		Ecological • Value shared guardianship • Sacred relationship with land
Power based decision making • Might is right • Right/wrong		Consensual decision making • Consideration of all views (including ancestors) to find balance and consensus

Across: health, education, law etc.

Dr Emma Goodall

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Department for Education South Australia

April 2019

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Department for Education forms and resources

The Department for Education public neurodiversity website has the following resources available that are recommended to be used to support education and care services and assist educators and support staff to develop individualised strategies to support children and young people to develop interoception.

The neurodiversity webpages also provide additional information for education staff and parents including how we support children in education and care services with atypical neurodiversity, educational implications and suggested educational adjustments; as well as further resources and external services that can support education and care staff, parents and children and young people.

Interoception support plan (HSP421)

An interoception support plan is completed by the education or care service, family and the child or young person (where possible) to provide a detailed understanding of the interoception issues and support the development of individualised strategies to increase interoception.

Interoception activity plan (HSP422)

An interoception activity plan can be used as a template by education staff to plan for the inclusion of interoception activities into daily class activities.

Personal best tracking sheet (HSP423)

A personal best tracking sheet can be used by children and young people to record their personal bests for different interoception activities. Education staff can also use to record for children and young people.

Engagement observation record (HSP424)

The engagement observation record is used to collect data on the level of engagement in learning of children and young people through a short observation. Tracking levels of engagement is a useful tool to monitor the effectiveness of strategies.

Interoception room record (HSP425)

The interoception room record can be used to collect relevant information needed to evaluate when children and young people are requiring the additional support needed by the interoception room and if there are additional contexts and professional development requirements for staff.

Interoception small group session structure

The interoception small group session structure is designed to support education staff to structure a cluster group interoception session.

Wellbeing, stress and distress questionnaire (HSP426)

The wellbeing, stress and distress questionnaire (WSD) is a brief emotional and behavioural screening questionnaire for children and young people. The tool can capture the perspective of children and young people and/or their teachers.

The WSD can be used for various purposes, including as an assessment tool and data tracking to evaluate the impact of the interoception activities over a term.

Interoception in the Australian Curriculum

Interoception in the Australian Curriculum provides detailed information for education staff on how interoception can be incorporated into the curriculum to support children and young people's learning.

Sensory overview support plan (HSP431)

A sensory overview support plan is developed by the education or care service, family and the child or young person (where possible) to provide a detailed understanding of the sensory issues and support the development of strategies to minimise sensory seeking or avoidance.

Regulation scale (HSP432)

The regulation scale is a tool that can be used for any child or young person to identify what is happening around them that is impacting on their mood change, what signals their body is giving them, and ways to respond to their body's signals that will help them manage the change in mood.

Understanding behaviour template (HSP433)

The understanding behaviour template is a useful tool to assist in determining the reason behaviour is occurring and to plan and implement replacement behaviour. This worksheet is used for a single behaviour and works most effectively when education staff, families and the child or young person work together to develop.

Emotional wellbeing care plan (HSP400)

An emotional wellbeing care plan is completed by a health professional in consultation with parents or legal guardians for children and young people requiring additional care or support for their mental health and emotional wellbeing.

Autism spectrum support plan (HSP430)

An autism spectrum support plan is completed by education and care services in collaboration with the child or young person and their family. The plan includes a description of the child or young person's interests, strengths, skills and support needs from the perspective of the child, family and education or care service.

Constipation and dehydration

To support wellbeing in education and care services the department promotes free access to water and encourages the display and discussion of the urine colour chart and bristol stool chart.

Differences in the autism spectrum

The thinking style differences and verbal communication differences documents have been developed to support education and care services to understand thinking and communication styles in autistic children and young people.

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Further information

Kids Matter have evaluated a number of programs and service providers and suggest that Mindful Schools may be useful. On their website they have some helpful free resources and links to their training: http://www.mindfulschools.org/resources/explore-mindful-resources/#resources-starter-lesson

Short video in which junior children and young people demonstrate good interoception and an explanation of the benefits of mindful body awareness and breathing exercises: https://www.youtube.com/watch?v=RVA2N6tX2cg

Short video from Smiling Mind an Australian mental health through meditation program - Mind the Bump - Mindfulness and how the brain works, which explains how negative emotions can lead to more negativity and how meditation links to interoceptive skills and other skills useful for learning and being a positive community member suitable for staff and children and young people (may need to explain some of the vocabulary): https://www.youtube.com/watch?v=aNCB1MZDgQA

Short video for upper primary or high school children and young people - One-Moment Meditation: "How to Meditate in a Moment", explanation of how to do a very short meditation in situations of immediate stress/anger etc via learning a 1 minute breathing meditation: https://www.youtube.com/watch?v=F6eFFCi12v8

Upper Primary (age 7 on) guided mindfulness from smiling mind
http://smilingmind.com.au/blog/#!/category/background/what-is-smiling-mind – first two sessions:
https://youtu.be/1QEYE7VS8ak?list=PLp3vpYbUmIqcqrMrdfj4vCvxUHrQB857m
https://youtu.be/AvQb0gre5KE?list=PLp3vpYbUmIqcqrMrdfj4vCvxUHrQB857m

Mindful body awareness of taste – need a piece of fruit or chocolate to do this activity:
https://youtu.be/SAWSYefLEcg?list=PLp3vpYbUmIqfFkalwWK1jbcearpKKpL8F

Mindful body awareness activity, starts with breathing activity:
https://youtu.be/eHjYmfvJK5Q?list=PLp3vpYbUmIqfFkalwWK1jbcearpKKpL8F

Guided 5 minute daily mindfulness activity (video is 6.09 mins):
https://youtu.be/y1dmKZg13Yw?list=PLp3vpYbUmIqdMWF7Gr_imkJjvbuoTU87u

High school (could be used with upper primary) mindful body awareness related to emotions guided activity: https://youtu.be/KTaA6ZiBtg8?list=PLp3vpYbUmIqdMWF7Gr_imkJjvbuoTU87u

High school (could be used with upper primary) mindful thought awareness guided activity:
https://youtu.be/KGPNMtHgenk?list=PLp3vpYbUmIqdMWF7Gr_imkJjvbuoTU87u

Testimonials

"Interoception has provided students with opportunities to connect their bodily responses to their emotions. [Our high school] has seen a significant decrease in behaviour incidents since the opening of our Interoception Room. We are proud to offer this approach for the students".

High School Staff

"Interoception has changed our school culture and atmosphere. Before interoception, our school felt chaotic. After the implementation of the program our students are settled, more engaged and out school culture has completely transformed. We are excited to see the continued positive impact interoception will make."

Primary School Staff

"It helps me learn to stretch my fingers, it relaxes me. I like relaxing, it's a happy feeling".

Kindergarten Student

"My students are more aware of what their bodies need".

Special School Staff

"Interoception has decreased our behaviour issues because students are able to self-regulate their emotions and don't get to the point anymore where leadership needs to intervene as they are able to self-manage before it gets to that point".

Primary School Leadership

"It calms me down; it lets all the bad things out of my blood. It helps my muscles grow it feels like I'm going to sleep".

Kindergarten Student

"I think interoception activities are so that you can calm down and refocus your work. My favourite activity is when you trace around your fingers while breathing in and out slowly. I enjoy [our interoception room] because it is nice and relaxing, it helps you be able to come back to the classroom ready for learning".

Primary School Student

"What interoception means to me – whole body connection, getting in touch with ones feelings and sense to navigate through life".

Special School Staff

"Our interoception room is very peaceful and calming which make me feel good. Interoception helps us to de-stress and helps us get back on tasks so we can do our best learning".

Primary School Student

"Interoception is beneficial for our children and really effective to assist, discover and regulate their emotions. The interoception room is a relaxing environment and the activities support our children's needs".

Kindergarten Staff

"Interoception is an activity which can make you focus and calm you down. The class does interoception activities because it helps individuals regain focus on themselves and what they're supposed to do".

Primary School Student

"Our interoception room is very peaceful and calming which make me feel good. Interoception helps us to destress and helps us get back on tasks so we can do our best learning".

Primary School Student

"I have definitely seen an improvement in our children since the introduction of the Interoception Room. We have many children that take themselves to the [interoception room] and we have seen them be able to regulate their emotions which is something our children especially need help with".

Kindergarten Staff

"The Interoception program has given the students in the program a space to de-regulate and go back to class 'ready to learn'. The environment creates a safe space that allows relationships and confidence to build within the students. It helps enhance social skills and creates a great platform to focus on One Plan goals"

Primary School Leadership

"We've already seen vast improvements in general student behaviour, our identified students remaining on-task in classrooms and an increased ability to self-regulate their emotions. It's still early days but we're seeing very positive signs of development".

Interoception Program Leader (Primary School)

"We've gone from getting two phone calls a week about [our child's] behaviour, to having two this entire term. We've seen [our child] doing exercises at home and [our child has] been a lot more understanding and expressive about how [our child is] feeling. We're very happy so far".

Parent

"My [child] used to sit under the desk at school not doing anything at all, or would cry and scream for hours. After moving to a school that did interoception several times a day [our child] is much calmer. After a term [our child] was no longer under the desk, but sitting at [the] desk learning".

Parent

"Interoception has helped me to control my anger. Before my anger controlled me and I would go off when I thought anyone was talking about me".

High School Student

Activity guide

Interoception 101

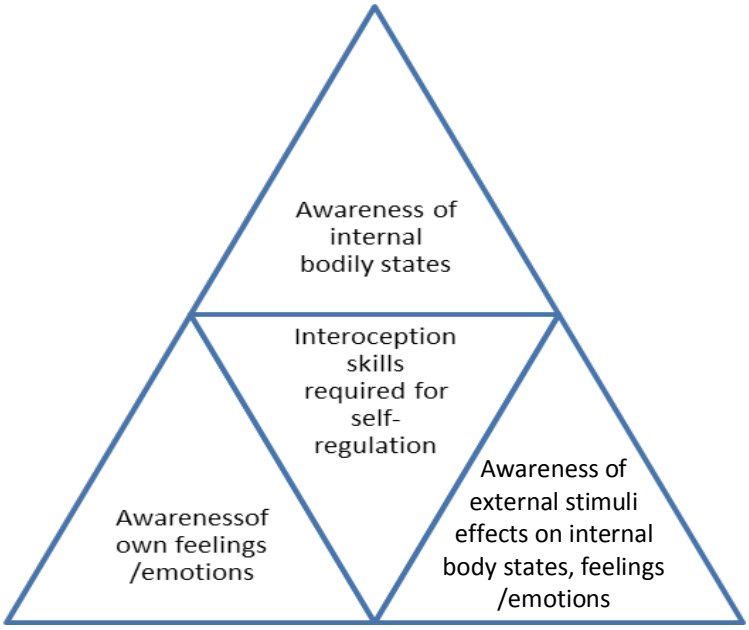
Goodall, E. (2016) Interoception 101 Activity Guide, Department for Education, South Australia

Government of South Australia
Department for Education

1. Interoception explanation

Interoception is an internal sensory system in which the internal physical and emotional states of the body are noticed, recognised/identified and responded to. Interoception skills are required for a range of basic and more advanced functions such as knowing when to go to the toilet, being aware that you are becoming angry or upset and being able to manage your emotions proactively. When children and young people have not yet developed interoception skills they will struggle with not only their own emotions but with social interactions and even just being around others may be difficult for them to manage.

Children and young people with well-developed interoception are able to use both logic and emotions to respond to their environment, whereas those without tend to rely on logic and have to carefully think through their possible responses to each situation. Thinking through each situation long term can be extremely tiring and can contribute to overload, shutdown, meltdowns, anxiety and depression.



Goleman (1995) suggested that emotional intelligence, sometimes known as social intelligence is composed of three skill sets; emotional skills, cognitive skills and behaviour skills. When these theories are looked at in conjunction with metacognition; thinking about thinking (Moses & Baird, 1999, Wellman 1985) the key role of interoception can be identified. Without interoception, it is not possible for children and young people to develop metacognitive abilities. The following table illustrates the links between metacognition, social-emotional intelligence and interoception.

Metacognition (Wellman, 1985)	Emotional intelligence as foundation to social-emotional skills (Goleman, 1995)			Interoception (mindful body awareness)
	Emotional skills	Cognitive skills	Behaviour skills	
1. Knowledge that mental states exist	Labelling feelings	Self-talk	Non-verbal communication	Noticing internal body states
2. Knowledge that there are distinct mental processes	Expressing feelings	Understanding social cues and how others perceive you	Effective verbal communication	Recognising and naming internal body states
3. Knowledge that these distinct processes are a function of cognition	Identifying feelings as responses to stimuli	Being able to problem solve in response to impulses and anticipating consequences. Understanding the perspectives of others and societal norms.	Control of impulses	Understanding the link between internal body states and feelings/emotions.
4. Knowledge that cognition is influenced by context (internal and external)	Understanding and responding to intensity of feelings			Understanding the effects of others and the wider environment on self, internal body states and feelings/ emotions.
5. Being able to self-assess cognitive process to direct personal behaviour.	Emotional self-regulation	Self-awareness	Behavioural self-regulation	a. Managing responses of internal body states to external stimuli b. Socio-emotional self-regulation

Another way of understanding interoception is to describe it as mindful body awareness. Someone who is skilled in this can for example tell when their heart beat is signalling fear versus excitement because they can notice and recognise or identify all the other internal bodily signals that they are experiencing which help them to process and respond to their overall emotional state. On a more basic level, interoception enables people to know when they are hungry, thirsty, tired etc, all of which are necessary precursors to positive development and self-regulation.

Each child or young person should keep a record of their developing body awareness using either visual or written records. In this way, children and young people who require extra support to self-regulate can be guided to develop skills in the areas that they still need to ensure that the possibility for long term self-management is optimised. Self-awareness on the interoceptive level is a pre-requisite for accurate self-awareness of self in terms of strengths, abilities and support needs in the long term.

Where children and young people are still developing interoceptive skills the use of visuals or verbal prompts are effective support tools. Below is a table with some examples of visual and verbal prompts and their rationale.

Issue	Example visual prompts	Example verbal prompts	Rationale & use
Still developing bladder/bowel control	Toilet icon placed in visual timetable at regular intervals (placing to be agreed with family & child or young person).	Verbal reminder to go to the toilet when child or young person is observed with body language that the family have indicated shows they are about to go to the toilet.	Toileting accidents can be embarrassing for some children and young people, other children and young people can be very unkind following these and it is important to ensure the use of respect at all times and to be very aware of how others are reacting. NB – for some bladder/bowel control is not possible due to physical issues.
Still developing awareness of thirst	Water bottles to be kept on desks or easily accessible in classroom. Photo of the child or young person drinking from their water bottle to be either timetabled regularly or to be presented when they lose focus on tasks.	'Have a drink.' 'Remember how we learnt that drinking water helps your brain to focus, have a drink break and then go back to work.'	Hydration is vital for good focus, physical health and avoiding headaches. Children and young people may not be able to adequately track their hydration. A simple way to teach this ability to track hydration is the colour of urine, which becomes more concentrated and darker in colour as someone become more dehydrated. Refer hydration chart.
Still developing awareness of hunger	Fruit snack visual Snack visual Listen to story and eat visual	"What would you like to eat from your lunch box?" (asked whilst offering lunch box) "You seem hungry, have a snack" (if exhibiting sign described by family)	Hunger can make people agitated, easily angered or aggressive. Stable blood sugar levels help maintain stable moods. As each person is different some children and young people may need small frequent snacks, whilst others prefer to eat less frequently. Free access to food with visual or verbal prompting is the ideal to maximise focus and concentration throughout the day.
Does not yet recognise when getting angry etc	Choice board with two or three known calming activities to be presented when signs of anger are appearing. 5 point scale not to be used during meltdown or tantrum Refer regulation scale.	"You seem to be getting angry, have a drink of water then come and let me know what the problem is." (enables calming prior to explanation which would otherwise cause more heightening) "Could you please…" (where … is a known calming activity)	Children and young people who do not yet recognise when they are getting angry they can verbally or physically lash out BEFORE they were aware that they were going to. At the point of meltdown these strategies are too late and the child or young person must be left to calm down before being spoken to. ONE visual can be presented during a meltdown that directs them to their safe or calming space or activity.
Uses very loud voice	'Noise-o-meter' Whisper visual Silence visual Talking visual Loud voice visual - displayed by child or young person in front of them on their workspace as appropriate.	Using a VERY QUIET voice, request the child or young person 'please talk more quietly' or 'not so loud please'.	Some children and young people cannot hear how loud their own voices are and/or use their voice to cover up other sounds that they find distressing/painful. Others may use loud vocalisations to signal distress in which case the DISTRESS must be responded to and not the loud voice.

Mindfulness is known to improvement in people with disabilities' experience of depression, anxiety, self-compassion and compassion for others (Idusohan-Moizer, Sawicka, Dendle, & Albany, 2015). In a pilot study, researchers from the Center for Investigating Healthy Minds (CIHM) at the Waisman Center, University of Wisconsin-Madison taught teachers and children and young people in the Madison Metropolitan School District mindfulness. Children and young people in the research group "reported feeling more in control and responsible for their actions, made fewer errors, and improved in their use of strategy on a problem solving task involving working memory. Additionally, teachers observed improved emotion regulation in these children and young people after the training." CIHM also looked at preschools and teaching kindness and compassion through mindfulness. The research has been published indicating that these children and young people showed greater improvements in social competence as well as higher levels of learning, health, and social-emotional development, whereas the control group exhibited more selfish behaviour over time (Flock et al, 2015).

2. Interoception and the autism spectrum

Self-awareness on the interoceptive level is a pre-requisite for accurate self-awareness of self in terms of strengths, abilities and support needs in the long term. Research confirms the neurological basis for many differences inherent in the autistic spectrum (Lovett 2005). Older autistic spectrum young people may find it helpful to understand the internal processing and response to external stimuli differences between autistic spectrum brains and non-autistic spectrum brains. An overview of the differences between autistic spectrum and non-autistic spectrum brains is given below (adapted from Baker-Ericzen, 2013 and Lovett, 2005).

- Thinks about the details
- Perceives information independent of context
- Logic/cognition focused
- Enjoyment of known/preferred experiences/ideas
- Focus on self and preferred people, objects, places, experiences
- Concrete, logical thinker
- Literal interpretation and use of language

- Thinks about the big picture
- Perceives the context of information as well as the information
- Feeling/emotion focused
- Enjoyment of new/novel experiences and ideas
- Enjoyment of and focus on social interactions
- Abstract, emotional thinker
- Social and contextual use of and interpretation of language

These differences are a continuum and non-autistics may have some of the traits of the autism spectrum or be able to learn to think in some of those ways and vice versa. No one way of thinking or being is superior to another.

Refer to the Department for Education autism spectrum webpage for further information and resources.

3. Developing interoception

Children and young people can learn a range of appropriate responses once they are able to notice and recognise internal signals.

Prior to having well developed interoception teaching responses to feelings and emotions and even external stimuli will be very difficult and is unlikely to support the children and young people effectively.

3.1 Responding to external sensory input

A child or young person who runs out of the classroom may well be reacting to external sensory input that they find extremely distressing but without an awareness of what being distressed 'feels like' they are unable to recognise that they are distressed and therefore they may not actually realise that that sensory input is problematic for them.

Once a child or young person can recognise and understand their internal body signals for distress, they can begin to work out what distresses them and then how to respond to these stressors. The adults around that child or young person may well have a good idea of what they are feeling and why, but without learning it for themselves the child or young person will never be able to learn to self-regulate independently. If you are unsure of the level of interoception of a particular child or young person it will be easiest to start off with activities that help them to gain an awareness of their bodily reactions (internal signals) to noise and heat/cold (refer interoception support plan).

3.2 Responding to noise

Start off with some mindful listening activities that are suitable for the children and young people that you are working with. Mindful listening is where the children and young people stop all other activities and focus on actively listening to something or someone with a goal to hear as much as they can. Some ideas of things to listen to and for include:

Listen **TO**	Listen **FOR**
Music from The sorcerer's apprentice	Which instruments they can hear
The general classroom or playground environment	Natural and created sounds
A poem or short story	Language rhythms and rhymes, number of words
Special effects eg from http://www.acoustica.com/sounds.htm	Different sounds
Recordings of different environments	Natural and created sounds to try and identify the soundscape (place)
Contemporary music at different volumes	Instruments, voices, pitch, tone

Once the children and young people have developed their active listening skills, these mindful listening activities can be followed up with questions relating to how different body parts feel or respond to different sounds. For children and young people with strong physical or emotional reactions to some sounds, the aim is to try and help them to identify what sounds trigger what reactions so that you can develop a collaborative plan to minimise stress, distress and anxiety in regards to those sounds whilst responding in a safe and effective manner.

Some strategies for responding to noise that may already exist are:

- Making noise to cover other noises
- Covering ears with hands
- Using headphones
- Running or moving away

Other possible strategies to explore are:

- Physical placement of children and young people in relation to noise in class
- Pre-warning of known trigger sounds when possible
- Use of comforting sensory activities to compensate for uncomfortable noise eg using a fiddle toy to distract from class noise. (This must be a specific strategy for each individual child or young person)

3.3 Responding to temperature (cold and heat)

Some children and young people may experience quite strong emotional reactions to changes in temperature that may have become apparent during prior interoception activities. For example becoming hot or cold can lead to distress, anger and even rage in some children and young people, who may not be aware of their temperature reactions themselves. Because clothing can be used to keep warm or cool it is one strategy that should be employed but it is unlikely to be enough for children and young people with strong emotional reactions. In addition these children and young people may need support to develop a good sense of temperature both internal and external, so that they can effectively use strategies.

Hands, feet, face and body trunk may all feel at quite different temperatures in some people. For example, moving up from toes which are so cold they have turned purple, feet may be very cold, but above the ankle may be warmer and the trunk quite warm. In other people this is not the case. Temperature regulation is complex and affected by a large number of individual factors. Seating should take temperature sensitivity into consideration as some children and young people will learn most effectively close to the air conditioner or heater whilst others will find that highly problematic.

Younger children should be explicitly taught about why and when to wear hats, coats, scarves, summer clothing etc, whilst older young people may need reminding that it is hot and the sun can damage their skin, so they need to wear a hat etc.

Some strategies for responding to cold/heat that may already exist are:

- Wearing gloves inside
- Keeping hand warmers in pockets
- Sitting under the air conditioner and setting it to full fan

Other possible strategies to explore are:

- Having an indoor option at recess/lunch
- Keeping wet flannels frozen in zip-lock bags for children and young people to hold to cool down

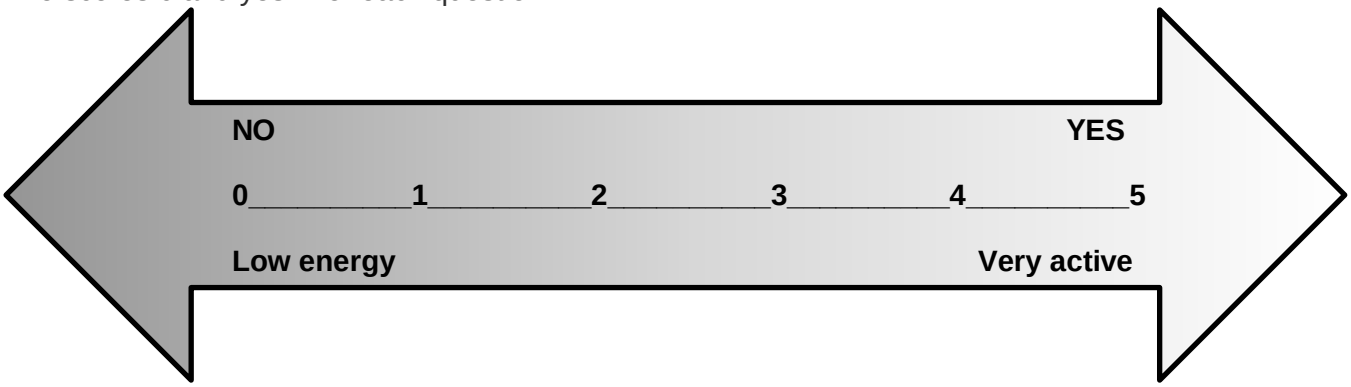
3.4 Default energy level

Children and young people have their own individual default energy level, some are very high energy or active, whilst others are more passive or low energy. It is important to help them identify and understand their typical energy level so that they can begin to develop an awareness of how their energy levels change and what effect this has on them. Only with an understanding of their own energy levels can children and young people earn how and when to apply strategies to maximise their ability to learn as well as be comfortable in themselves and around others.

Introduce the concept of energy levels through a simple quiz:

- *Do you find it difficult to sit still at your desk/table?*
- *Do you struggle to wait patiently for things?*
- *Do you have difficulty sitting in the car or bus during long trips?*
- *Do you enjoy sports requiring lots of movement, like soccer and bike riding?*
- *During every day activities, like brushing teeth and getting dressed, do you like to move around rather than stand in one spot?*

No scores 0 and yes 1 for each question



3.4.1 Energy level – mind and body #1

One way to help children and young people identify their perceptions of their default energy levels is to ask them to choose photographs that they think are most like the inside of their brain and most represent their energy levels; these can be selected from mind photos (section 3.4.3) and body

photos (section 3.4.4) or to bring in or choose their own images. A discussion about why they chose those particular images will help model the interaction between expression of self (communication) and awareness of self (interoception).

Repeat this activity when children and young people are energetic and again when they are tired, asking them to choose the photographs that they think are most like the inside of their brain and most represent their energy levels **AT THIS MOMENT IN TIME.** Direct the discussion to enable them to see the changes in their picture choices from default to energetic and tired, as well as to compare and contrast how these states are represented or experienced by their peers.

3.4.2 Energy level – mind and body #2

Provide the children and young people with their body outline (section 3.4.5) and/or the word bank (section 3.4.6) words first thing in the morning, preferably on a cold, wet, dark winter morning or after a long weekend in other seasons. Ask the children and young people to identify some of the descriptors that match how their bodies feel right now. Repeat activity when they are energised and get them to compare and contrast.

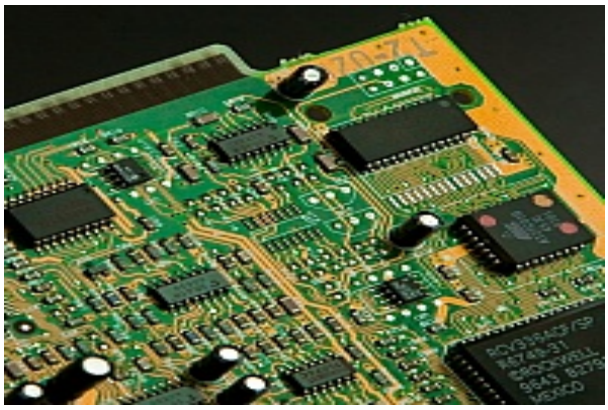
3.4.3 MIND PHOTOS









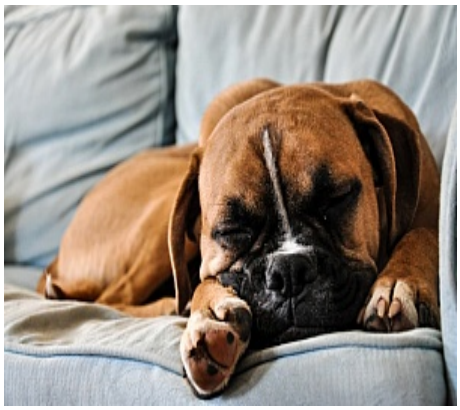
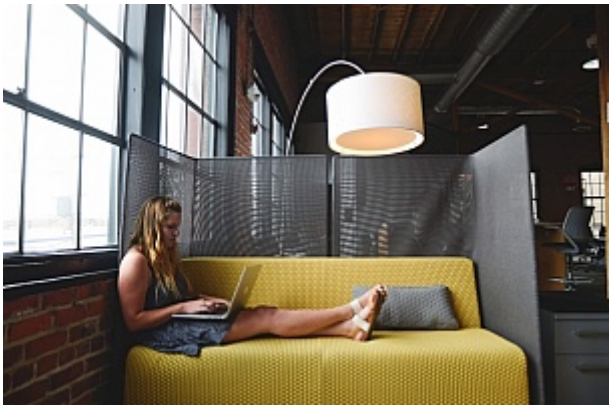


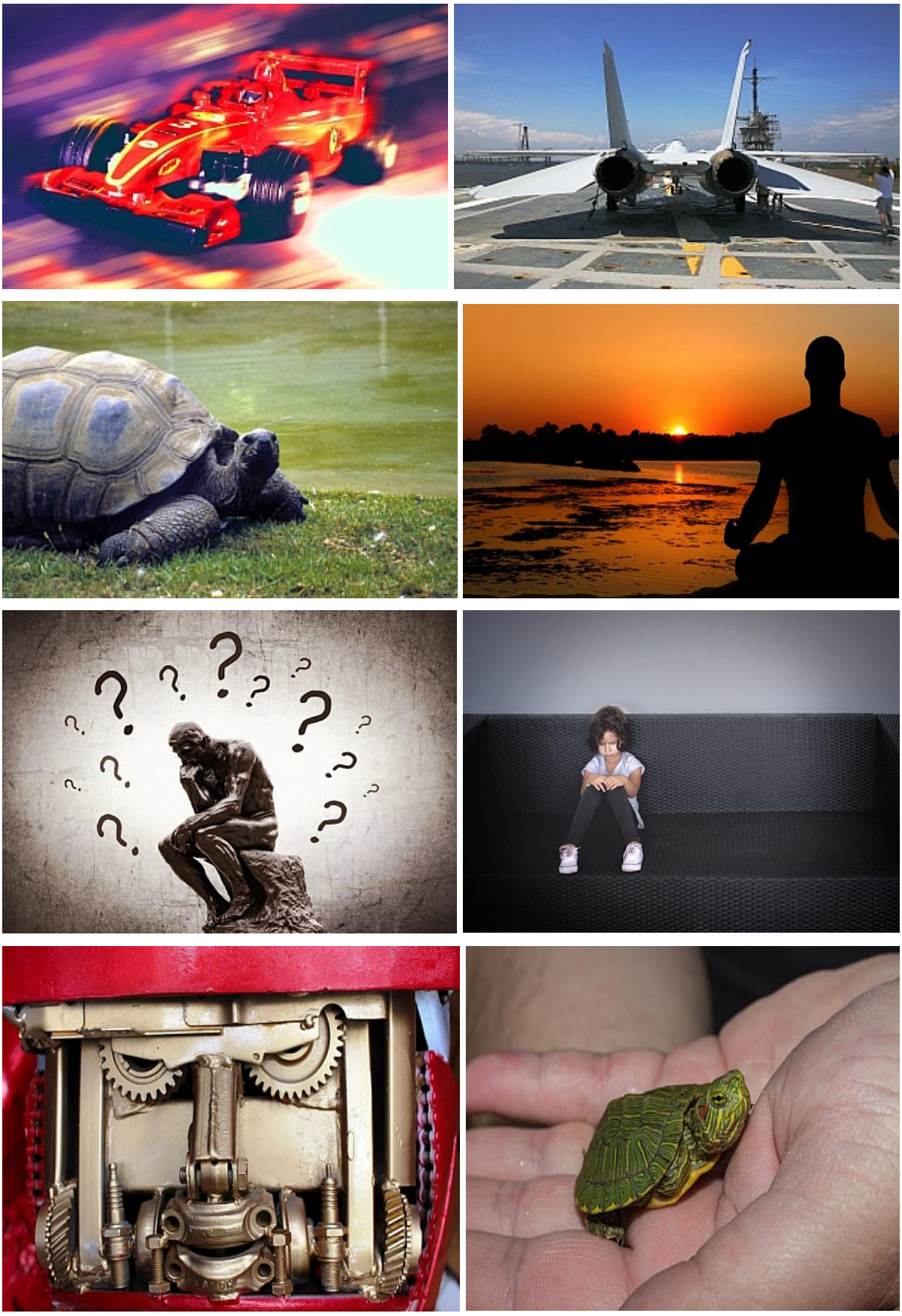
3.4.4 BODY PHOTOS







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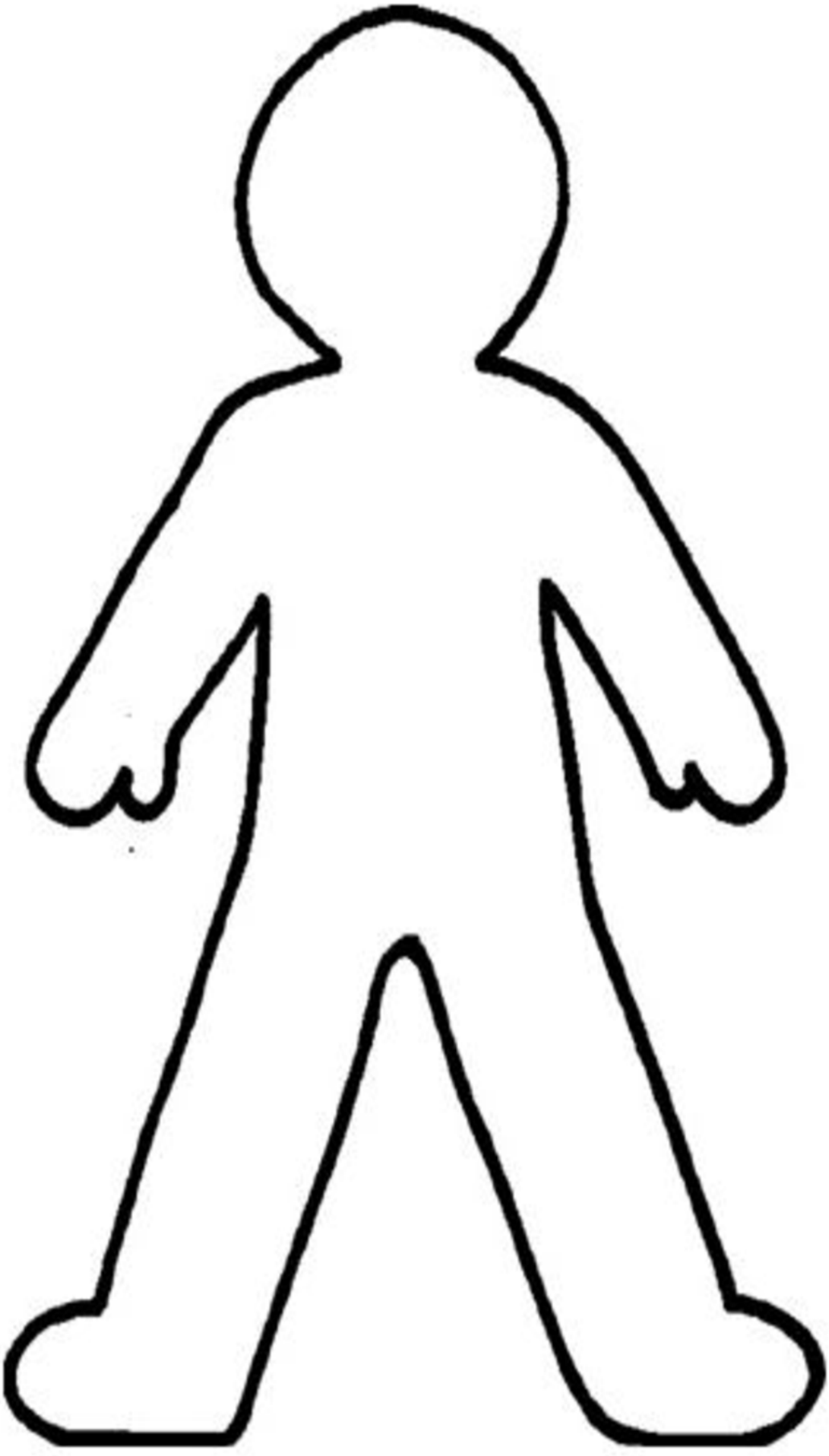
3.4.5 BODY OUTLINE



3.4.6 WORD BANK

Body parts

head	forehead	eye brows
eyes	nose	nostrils
mouth	lips	teeth
tongue	jaw	ears
ear lobe	neck	shoulder
ribcage	ribs	diaphragm
arm	elbow	hand
fingers	thumbs	palm
leg	knee	ankle
foot	toes	heel
sole	skin	veins
artery	heart	lungs
throat	stomach	bladder
bowel	breath	voice
muscles	bones	tendons
mind	brain	shin

Associated adjectives

boiling	hot	warm
cool	cold	freezing
stiff	tense	relaxed
tight	loose	floppy
stretched	light	heavy
wet	dry	itchy
runny	busy	cluttered
full	empty	blank
closed	open	still
moving	wiggling	jerking
flapping	fidgeting	twirling
twisting	squeezing	pacing
clenching	shaking	tapping
short	fast	thin
quiet	loud	sore
sweating	sweaty	tired

3.5 Anger

Ask the child or young person to describe how their body feels when they get angry. You may need to help them to identify when they were angry to prompt memory of what was happening. Children and young people can do this through drawings or choosing images, or by completing their body outlines (section 3.4.5) with words from the word bank (section 3.4.6). This can be done as a whole class, in groups or 1:1, but should **never** be attempted during a meltdown.

If you can see a child or young person becoming angry, you could engage in this activity by saying; *"I can see that you are getting angry, can you explain how your body is letting you know you are angry?"* If they are unable to do this, you can further explain why you think they are angry, what the physical clues are for you.

Below are some physical indicators of anger taken from https://www.mentalhelp.net/articles/recognizing-anger-signs/

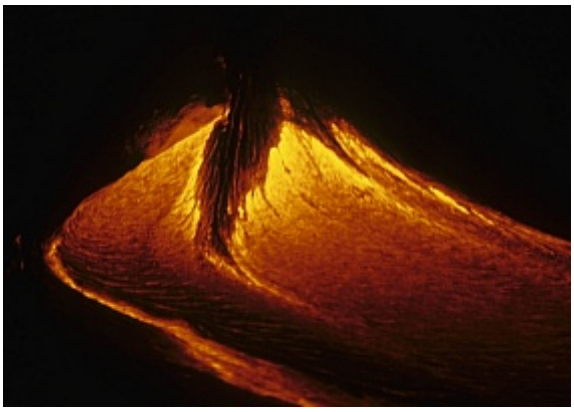
- clenching your jaws or grinding your teeth
- headache
- stomach ache
- increased and rapid heart rate
- sweating, especially your palms
- feeling hot in the neck/face
- shaking or trembling
- dizziness
- rubbing your head
- cupping your fist with your other hand
- pacing
- getting sarcastic
- losing your sense of humour
- acting in an abusive or abrasive manner
- raising your voice
- beginning to yell, scream, or cry

3.5.1 Responding to anger with volcano breathing

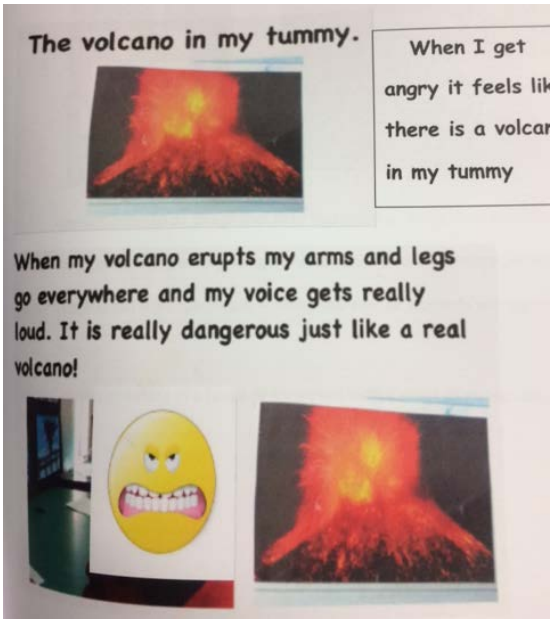
This is most useful with children at primary school or younger, young people may respond better to being prompted to use mindful breathing when angry.

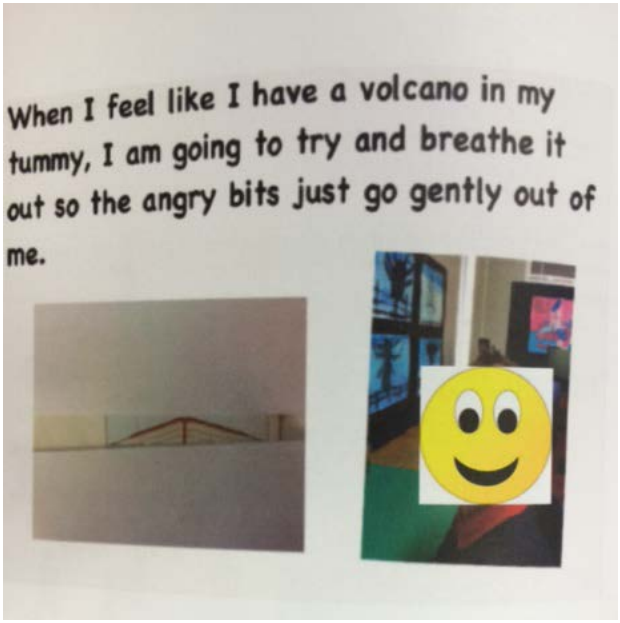
Volcano breathing works on the principle that anger is like lava inside a volcano and that it is going to come out sooner or later, so it would be safer for the lava to run down the sides rather than explode into the wider atmosphere!

This technique should be taught when children and young people are calm and prompted when they are becoming angry. If children and young people use the technique independently, it is helpful to compliment them for managing their anger positively.



The technique essentially consists of two parts; a story/visual and a breathing exercise. The following example is taken from Goodall (2013) pages 135-136.





4. Interoception activities

An interoceptive activity focuses on creating and noticing a change in some aspect of one's internal self, such as, one's **muscular system, breathing, temperature, pulse or touch.** People with atypical interoception are not able to identify the physiological changes that signal mood changes or bodily self-regulation needs. Interoception activities teach us to connect with these.

An interoception activity focuses on a particular part of the body for at least 30 seconds.

- It enables a change to occur in one's body state while labelling the movement and part of the body involved (e.g. toes, stretch and curl up or curl under)
- **Repeat the same activity for a second time**
- The individual is encouraged to identify a ***change*** in their body state (eg hot-cold, soft-hard, stretch-relax) and where they felt that change (arch or ball of foot, on top).

The following pages provide practical application of interoception.

Feeling muscles - hands

1. Sitting down, just rest your hands on the top of your thighs (demonstrate)
2. Now stretch your fingers as wide apart as possible and hold them tense like that for 30 seconds
3. Rest them back again, now they should be relaxed
4. *Where could you feel your muscles when your hands were stretched?*

1. Hand relaxed, resting on thigh

2. Hand stretched out

3. Hand relaxed, resting on thighs

4. Hand stretched out with question mark

Interoception activity

Feeling muscles - feet

1. Sitting down, just rest your feet flat on the floor (demonstrate)
2. Now stretch your toes as wide apart as possible and hold them tense like that for 30 seconds
3. Now curl your toes under and hold them curled for 30 seconds
4. Rest them back again, now they should be relaxed
5. *Where could you feel your muscles when your toes were stretched and when they were curled?*

1. Feet and toes relaxed

2. Toes stretched out

3. Feet with toes curled under

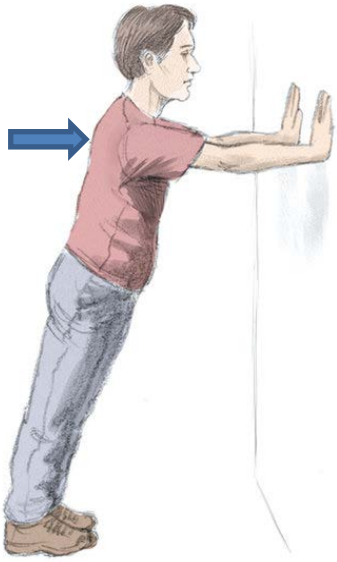
4. Feet, one stretched, one curled, with question mark

Interoception activity

Feeling muscles - arms

1. Standing up, put your hands flat on the wall and just hold them there (demonstrate)
2. Now push the wall as hard as you can for 30 seconds
3. Stop pushing and relax your arms by your side
4. Rest them back again, now they should be relaxed
5. *Where could you feel your muscles when you were pushing against the wall?*

1. Arms out, hands flat on the wall, relaxed posture



2. Arms out, hands flat on the wall, pushing on wall

3. Arms down by side, relaxed

4. One arm out pushing on wall, one arm relaxed by side, with question mark

Interoception activity

Feeling muscles - legs

1. Standing up, put one foot in front of the other with both feet facing forward and legs hip width apart, both feet flat on the floor (demonstrate)
2. Now move the front foot so that it only has the heel touching the floor. *Where can you feel something?* That is your muscle stretching on the back of your calf.
3. Now point your toes on that front foot so only your toes are touching the floor. *Can you feel something in your foot as well as your leg?*
4. Put your feet back flat on the floor and change which leg is in front, then repeat the heel touch and toe touch. *Does it feel the same or different?*
5. What about if you stretch your leg behind and do heel touch or toe touch? *Does that feel the same or different?*

1. Standing up, put one foot in front of the other, both feet facing forward, legs hip width apart, both feet flat on floor

2. Front foot heel touching floor

3. Front foot toes touching floor in point

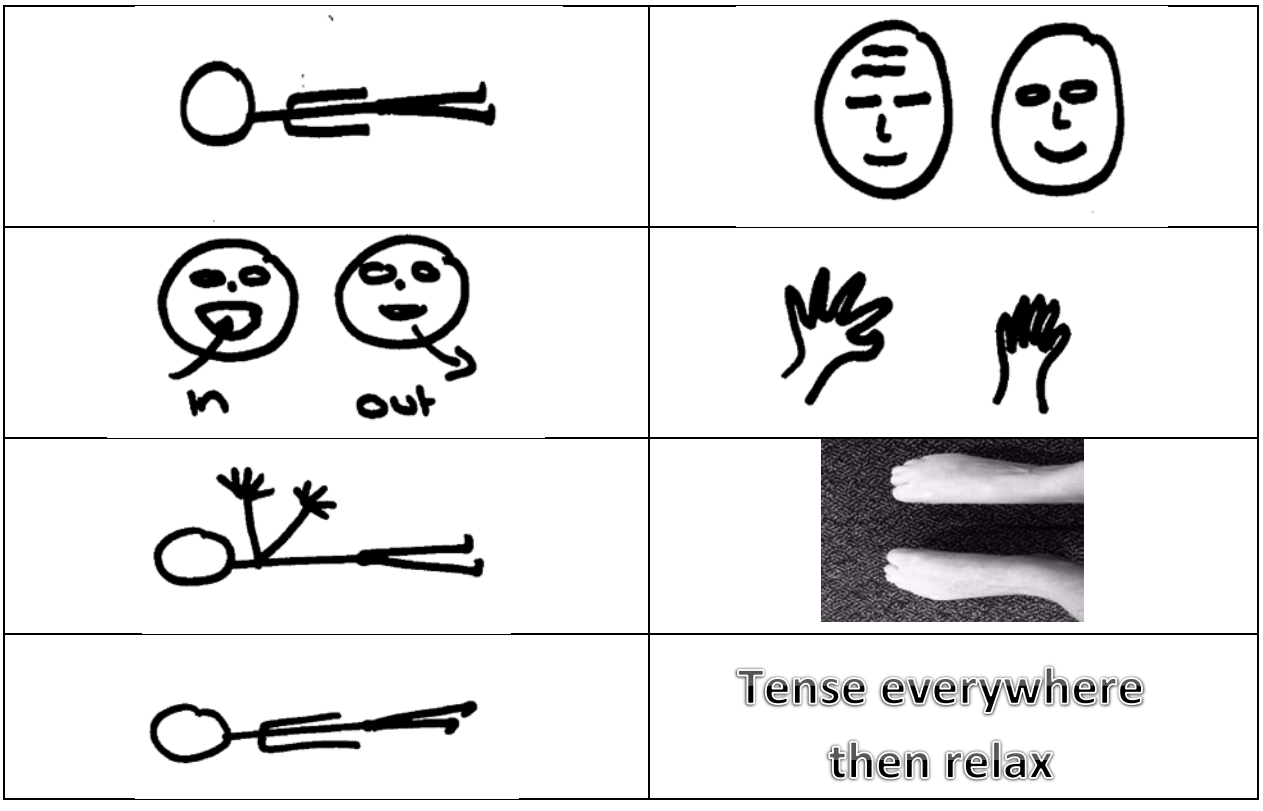
4. Back foot heel, back foot toes

Follow on activity/exploration:
Can you have one foot pointed and one heel touching the floor at the same time?
Can you move your legs in other ways to feel other muscles in your legs?

Interoception activity

Feeling muscles – whole body

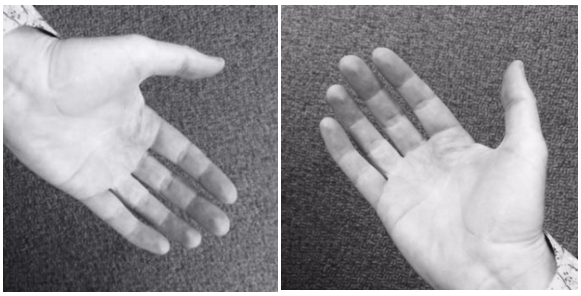
1. Lie down in a space on the floor, with your arms relaxed by your side, you can close your eyes if you want to. Breathe slowly.
2. As you breathe in scrunch your eyes and forehead and then as you breathe out relax them again.
3. As you breathe in open your mouth as wide as possible then as you breathe out relax your mouth.
4. Keep breathing slowly.
5. As you breathe in stretch your fingers apart as wide as possible, then as you breathe out, relax your fingers.
6. Now stretch your fingers and your arms as you breathe in, stretch as much as possible.
7. As you breathe out, relax your arms and fingers.
8. As you breathe in curl your toes up to scrunch your feet, then relax your feet as you breathe out.
9. Now as you breathe in scrunch your toes up and pull your feet in towards your body just using your leg muscles, and relax as you breathe out.
10. Breathe slowly in and out for a few breaths and then when you are ready, breathe in and tense up your face, hands, arms, feet and legs and then slowly breathe out and relax all the muscles.
11. Stay relaxed and breathe in and out slowly for a few more breaths.



Interoception activity

Feeling temperature #1

1. Stand still, concentrate on how hot, warm, cool or cold your hands feel. Touch your arms with your hands.
2. *Are your arms warmer or cooler than your hands?*
3. (after 10-30 seconds) Now rub your hands together really fast for 30 seconds, I will tell you when to stop.
4. (after 20 seconds) Ok, stop now. *Do your hands feel warmer or colder than before?*
5. Touch your arms with your hands.
6. *Are your arms warmer or cooler than your hands?*



1. Hands

2. Hands touching arms

3. Rubbing hands together (30 seconds)

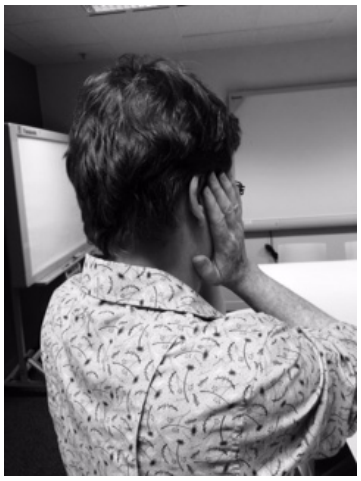
4. Hand touching arms

Follow on activity/exploration:
How could we cool our hands down when they are hot?
What is the safe temperature range for human bodies?
How do humans cool down/warm up?

Interoception activity

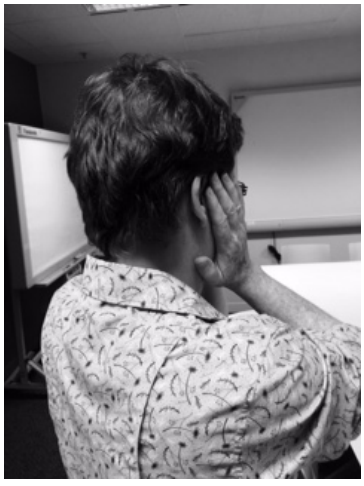
Feeling temperature #2

1. Stand still, concentrate on how hot, warm, cool or cold your body feels. Touch your face with your hands.
2. *How warm or cool does your face feel?*
3. (after 10 -30 seconds) Now, run really fast on the spot for one minute, I will tell you when to stop.
4. (after 1 minute) Ok, stop now. Touch your face with your hands.
5. *Does your face feel warmer or colder than before?*



1. Hands on side of face

2. Running on the spot for one minute



3. Hands of side of face

4. Thermometer

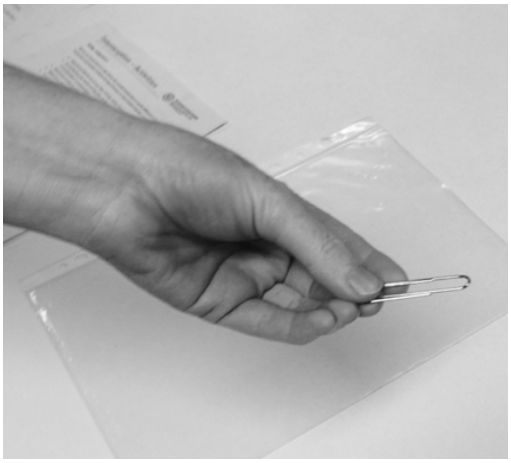
Follow on activity/exploration:
How can we measure body temperature?
Does your face get hotter or colder if you go outside?

Interoception activity

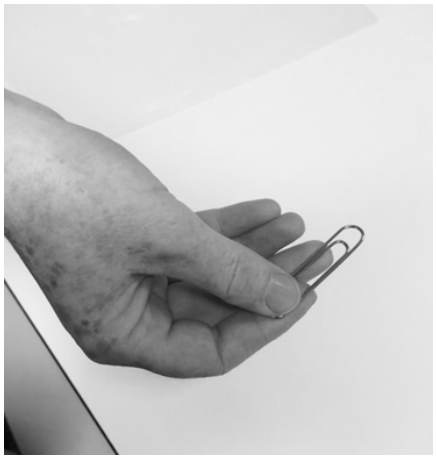
Feeling temperature #3

Note: this activity requires a box of paperclips, half of which have been in the freezer

1. Give each child or young person a room temperature paper clip.
2. *How does the paperclip feel? Is it hot, warm, cool or cold?*
3. Ok put the paper clip down and come and get one out of the box (from the freezer).
4. *How does this paper clip feel? Is it hot, warm, cool or cold?*
5. Now pick up the other paper clip in your other hand
6. *Does it feel warmer or cooler than it did before?*

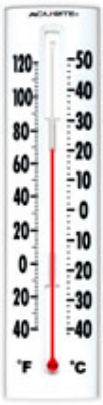


1. Hand holding paperclip



2. Other hand holding other paperclip

3. Hands each holding paperclip



4. Thermometer

Follow on activity/exploration:
Would the cold clip feel less cold if you wear gloves?
How does having cold fingers make your body feel?

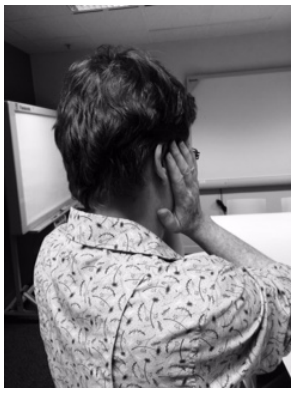
Interoception activity

Feeling temperature #4

Note: this activity can only be done when the outside temperature is quite different to the classroom temperature (can be done inside by turning off air-conditioning or heat instead of going outside)

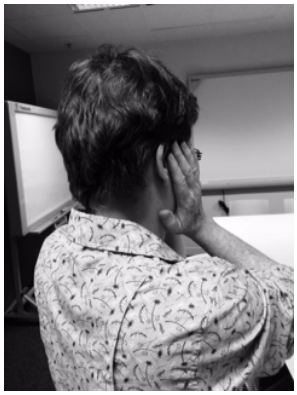
1. Stand still, feel the air on your skin. *Is it hot, warm, cool or cold?*
2. Try and feel how your hands and face feel. *Do they feel the same temperature or different? Is it comfortable or uncomfortable?*
3. Now let's go outside for a few minutes (or turn the air conditioning or heating off for 5 minutes)
4. Stand still and feel the air on your skin. *Is it hot, warm, cool or cold?*
5. Try and feel how your hands and face feel. *Do they feel the same temperature or different? Is it comfortable or uncomfortable?*
6. *Which air temperature did you prefer?*

1. Person in classroom



2. Hand on face

3. Person in sunshine



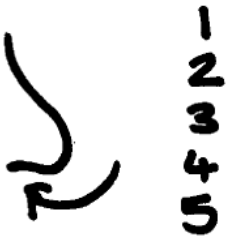
4. Hand on face

Follow on activity/exploration:
Why do people wear some clothes in some weather and not others?
Explore clothing and response to temperatures across cultures.

Interoception activity

Feeling breathing #1

1. Sit comfortably, on your chair or on the floor, close your eyes
2. Breathe in through your nose whilst counting to 5 in your head (teacher to count out loud to support this initially)
3. Then open your mouth and breathe out through your mouth
4. Close your mouth and breathe in through your nose again whilst counting to five (teacher can say In, two, three, four, five, and open mouth breathe out)
5. (Keep doing this for about a minute) *How do you feel? Which parts of your body moved when you were breathing in? Did it feel different breathing in from breathing out?*



1. Arrow showing air going into nose, counting to five

2. Arrows showing air coming out of mouth

3. Arrows showing air going into nose, counting to five and air coming out of mouth

4. Person sitting with question mark

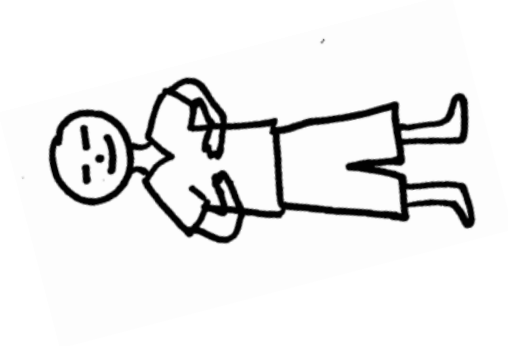
Follow on activity/exploration:
*Blowing balloons up – as they **in**flate explain that is like the air being breathed INTO our lungs and when the balloon lets air out, it is like us **ex**haling which it the other word for breathing out.*
What are we breathing? What is air? What is air made of? Why do we need it?
Can you make your breathing faster or slower? How? What happens when you breath fast? How does it make the rest of your body feel?

Interoception activity

Feeling breathing #1

1. Place your hand over the centre of your ribs or just below your ribs (demonstrate).
2. Lie down, relax and feel comfortable, close your eyes and keep your mouth closed.
3. Make sure your hand is just resting on your ribs or just below and not pressing hard.
4. Breathe in slowly and deeply through your nose, you should feel your hand rising as your lungs fill with air.
5. Now breathe out slowly through your nose, keep breathing out, you should feel your hand moving back down as the air goes out of your lungs and your body deflates with your lungs.
6. Keep practising this breathing in and out for about a minute, see if you can feel your body moving even if you move your hand off your ribs.

1. Hands on ribs



2. Lying down with hands on ribs

3. Arrows showing air going into nose, counting to five and body inflated

4. Arrows showing air going out of nose, counting to five and body deflated

Follow on activity/exploration:
Does your body rise and fall differently when you breathe in and out through your mouth?
What do out lungs do? Where are they?
How can we keep our lungs healthy?

Interoception activity

Feeling breathing #3

1. Sit comfortably, on your chair or on the floor, close your mouth and your eyes
2. For this exercise we are going to breathe in and out through our nose slowly and quietly
3. Whilst you are breathing in and out focus on the feeling the air entering and exiting your nostrils, if you can't feel it yet, just keep breathing
4. When you can feel the air going in and out of your nose, see how far into your nose and/or body you can feel the air entering
5. If you get distracted, just return to focusing on your breathing, slowly and quietly and feeling the air passing into your nose and leaving your body

1. Person sitting with eyes and mouth closed

2. Arrows showing air going into and out of nose

Follow on activity/exploration:
Do this breathing exercise after recess and lunch for a week – did it help you to focus on your work?

Interoception activity

Feeling pulse #1

1. Your heart is a pump which pumps blood around your body through your arteries. Where the arteries are close to your skin you can feel the blood moving, the movement of your blood is called your pulse. You can feel your pulse in several places, by gently feeling an artery with your fingertips. You can also count how fast your heart is beating.
2. The easiest place to feel your pulse is on your wrist. Sit down and rest your hand on your leg with your thumb up in the air and your palm facing up.
3. With the first two fingers of your other hand, stroke from the top of your thumb down the side until your fingers reach your wrist.
4. Move your fingers slowly onto the inside of your wrist, and gently feel for your pulse.
5. When you have found your pulse you can count how many beats in 15 seconds (Teacher to time 15 seconds).
6. Children and young people who are able to can times their score by 4, which gives them their pulse rate per minute.

1. Finding pulse on wrist

2. Timing for 15 seconds

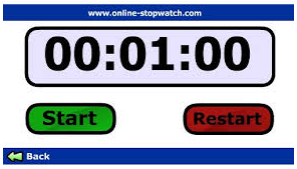
Follow on activity/exploration:
How does your breathing change when you are trying to find your pulse?

Interoception activity

Feeling pulse #2

1. Sit down and rest your hand on your leg with your thumb up in the air and your palm facing up.
2. With the first two fingers of your other hand, stroke from the top of your thumb down the side until your fingers reach your wrist.
3. Move your fingers slowly onto the inside of your wrist, and gently feel for your pulse.

4. When you have found your pulse you can count how many beats in 15 seconds (Teacher to time 15 seconds).
5. Children and young people who are able to can times their score by 4, which gives them their pulse rate per minute.
6. Now jump up and down or run on the spot for one minute



7. Now find your pulse again and count the beats for 15 seconds (Teacher to time 15 seconds)
8. Children and young people who are able to can times their score by 4, which gives them their pulse rate per minute.
9. *Is your pulse higher or lower than before you started jumping or running?*

Follow on activity/exploration:

When else does your heart rate/pulse change?

What happens if your run and/or jump for longer?

What happens to your heart rate if you lie down and relax for a minute?

What can you do to lower your heart rate/pulse? Why would you want to?

Does your breathing change when you run/jump? Does it change again after you have stopped running/jumping?

Feeling firm vs light touch #1

1. Sit down on a chair or on the floor.
2. Rest two fingers on the top of your leg.
3. *What can you feel in your leg and in your fingers?*
4. Now push the two fingers into your leg hard.
5. *Are the feelings in your leg and/or fingers different?*

1. Fingers resting lightly on leg

2. Fingers pressing hard into leg

Follow on activity/exploration:

What happens if you do this on your shin?

Does this feel different on your arm to your leg?

Feeling firm vs light touch #2

1. Sit down on a chair or on the floor.
2. With one finger stroke your cheek.
3. Now stroke the back of your hand.
4. *Was the feeling in your finger tip the same or different?*
5. *Did each body part feel the same temperature?*
6. *Can you still feel anything in your body after these light touches?*
7. Now try dragging your finger hard across your cheek and then hard across the back of your hand.
8. How did that feel?
9. *Can you still feel anything in your body after these firm touches?*

Follow on activity/exploration:

What happens if you do this on the side of your leg?

Does this feel different on your hand to your leg?

Activity guide

Interoception 201

Lean, C., Leslie, M., Goodall, E., McCauley, M., and Heays, D. (2019) Interoception 201 Activity Guide Department for Education, South Australia.

Government of South Australia
Department for Education

1. Foreword

If you are new to Interoception and are only starting to implement the approach, please read Interoception 101 which is located on the Department for Education's website.

The Interoception 101 Activity Guide will provide you with an in-depth theory of Interoception and beginning exercises.

The Interoception 201 Activity Guide is to be used when you have exhausted the beginning activities and are looking for new activities.

2. Introduction to interoception

2.1 Interoception is our eighth sense

1. Sight	5. Hearing
2. Smell	6. Proprioception
3. Taste	7. Vestibular
4. Touch	**8. Interoception**

2.2 What is interoception?

Interoceptive awareness can be broadly defined as the conscious perception of an internal bodily state, for example, one's heart beating and breathing. These senses are related to emotional experiences. Awareness of both biological and emotional internal body cues are impacted in individuals who are affected by trauma, including intergenerational trauma, and neurodevelopmental disabilities including the autism spectrum (Schauder, Mash, Bryant, & Cascio, 2015, Mahler, 2016).

2.3 Benefits of teaching interoception

- To help children/students connect to and learn to understand their own bodies and emotions.
- It is a pre-requisite skill for self-management and self-regulation. It provides children/students with the tools to know when they are developing emotional reactions and the skills to be in control of those reactions.
- Without interoception, social skills are just the application of rules and not a meaningful way of interacting – it enables students to develop a sense of belonging.
- Classrooms where interoception is being taught have decreasing behavioural challenges over the school year and those where it is not have static or increasing behavioural challenges (*school wide behaviour reporting analysis)*

2.4 Models of interoception for Department for Education sites

Please note that interoception is a complement to quality differentiated teaching and does not replace this.

1. In class teaching for individual classes
2. In class teaching across whole school
3. In class teaching across whole school with specific groups of intensive interoception
4. In class teaching across whole school plus use of an interoception room

2.5 Models of interoception for in class teaching

(These do not require any additional resourcing as they are implemented as part of quality differentiated teaching practice)

- Two to three short sessions a day, each session covering one or two interoception activities. Activities are done twice. After the first time students are asked where they felt the difference or what they felt. They are then guided where/what to feel and asked to focus on that for the second time the activity is done. Sessions are most beneficial after breaks, so 2/3 of first thing in the morning, after recess, after lunch.
- Multiple short sessions a day, each session covering one or two interoception activities. Activities are done twice. After the first time students are asked where they felt the difference or what they felt. They are then guided where/what to feel and asked to focus on that for the second time the activity is done. Sessions are after every transition and/or whenever the students require refocusing.
- One or two long sessions a day, each session lasting 15-20 minutes. Usually chosen for use in specific classrooms where children/students arrive dysregulated and struggle all day. Interoception activities are presented as a sequence of movements and actions with directions to focus on specific muscles or other aspects of interoceptive awareness.

2.6 What is an interoception activity?

An interoceptive activity focuses on creating and noticing a change in some aspect of one's internal self, such as **muscular system, breathing, temperature, pulse or touch.** People with atypical Interoception are not able to identify the physiological changes that signal mood changes or bodily self-regulation needs. Interoception activities teach us to connect with these.

2.7 Structure of an interoception activity?

An interoception activity focuses on a particular part of the body for at least 30 seconds.

- It enables a change to occur in one's body state while labelling the movement and part of the body involved (e.g. toes, stretch and curl up or curl under)

- **Repeat the same activity for a second time**
- The individual is encouraged to identify a ***change*** in their body state (e.g. hot-cold, soft-hard, stretch-relax) and where they felt that change (arch or ball of foot, on top).

2.8 Interoception research

Department for Education research indicates that the act of interoception - noticing aspects of one's body:

Within 8-10 weeks

- Decreases heart rate during the interoception activity
- Decreases externalising challenging behaviours
- Increases engagement in learning
- Increases prosocial behaviours—kindness, helpfulness, connections to others

Over 16+ weeks

- Decrease stress
- Can help manage anxiety
- Promotes caring and empathy

3. Interoception activities

The following pages provide practical application of interoception.

Interoception activity

Wall Squat

Find a clear space of wall to lean against.

Press your back against the wall and slide down the wall and bend your knees, your knees should be at a 90 degrees angle.

Hold that position for 30 seconds.

Where did you feel it in your body when we were in the squat position?

We are going to repeat the activity again, but this time we are going to focus on our thigh muscles.

How did your thigh muscles feel while holding that stretch?

Can we extend the time limit for 60 seconds next time? Then 90 seconds?

Interoception activity

Core muscles

Sit down on the floor.

With your bottom on the floor, you are going to raise your legs into the air.

If you need, you can put your hands on the floor to support you.

We are going to hold our legs in the air for 30 seconds.

Where did you feel it in your body when we had our legs in the air?

We are going to repeat the activity again, but this time we are going to focus on our core muscles.

How did your core muscles feel while holding that stretch?

What do we use our core muscles for?

Interoception activity

Cat/Cow stretch

Start on all fours. Your back should be flat like a tabletop.

Eyes should like straight down to the ground.

Breathe in through your nose, drop your belly down and slowly lift the head/neck up.

When you exhale through your mouth, lift the belly and spine up so the back is arched like a cat.

Alternate 5 – 10 cow to cat stretches.

Where did you feel it in your body when we were stretching?

We are going to repeat the activity again, but this time we are going to focus on our back muscles.

How did your back muscles feel while completing that stretch?

Interoception activity

Knee to Chest stretch

Lie on your back.

Pull one knee into your chest, while keeping the other leg straight and your lower back pressed into the floor.

Hold for 30 seconds.

Swap legs.

Where did you feel it in your body when we were completing the stretch?

We are going to repeat the activity again, but this time we are going to focus on our hamstring muscles.

How did your hamstring muscles feel while completing that stretch?

Interoception activity

Shoulder strength

Start by grabbing two books.

Lift your arms up while holding the books in your hand.

Hold this pose for 30 seconds.

Where did you feel it in your body when we were stretching?

We are going to repeat the activity again, but this time we are going to focus on our shoulders.

How did your shoulders feel while completing that stretch?

Interoception activity

Butterfly wings

In a seated position, place the soles of your feet together and hold them with your hands.

The legs are now forming the ‘butterfly wings’.

Your elbows can be between your legs or resting on your knees.

Gently press the knees down to increase the stretch.

To add a spine stretch, bend forward from the upper back and reach forward towards your feet.

Where did you feel it in your body when we pushed down on our knees?

We are going to repeat the activity again, but this time we are going to focus on our inner thigh muscles.

How did your inner thigh muscles feel while holding that stretch?

Surfing stretch

Start by standing up.

Put your left leg forward and your right foot back and squat slightly.

Lift your arms out and hold them out straight to your sides.

Hold this pose for 30 seconds.

Where did you feel it in your body when we were in this squat position?

We are going to repeat the activity again, but this time we are going to focus on our thigh muscles.

How did your thigh muscles feel while holding that stretch?

The knuckle cracker

Start by standing up.

Put your hands out in front of you and lock your fingers together.

Push your hands out and flip your hands over.

Hold this pose for 30 seconds.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our knuckles.

How did your knuckles feel while holding that stretch?

Interoception activity

The plank

Start by lying flat on your stomach.

Plant your hands under your shoulders.

Ground your toes into the floor.

Hold the body in that position for 30 seconds.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our core muscles.

How did your core muscles feel while holding that stretch?

Next time, can we hold the plank for 45 seconds, then onto 1 minute?

Interoception activity

The star

Stand tall, head up high and pull your belly button in.

Spread your arms and legs into a star shape.

Breathe air in through your nose as you slowly stretch one arm over your head.

Slide your other arm down your leg.

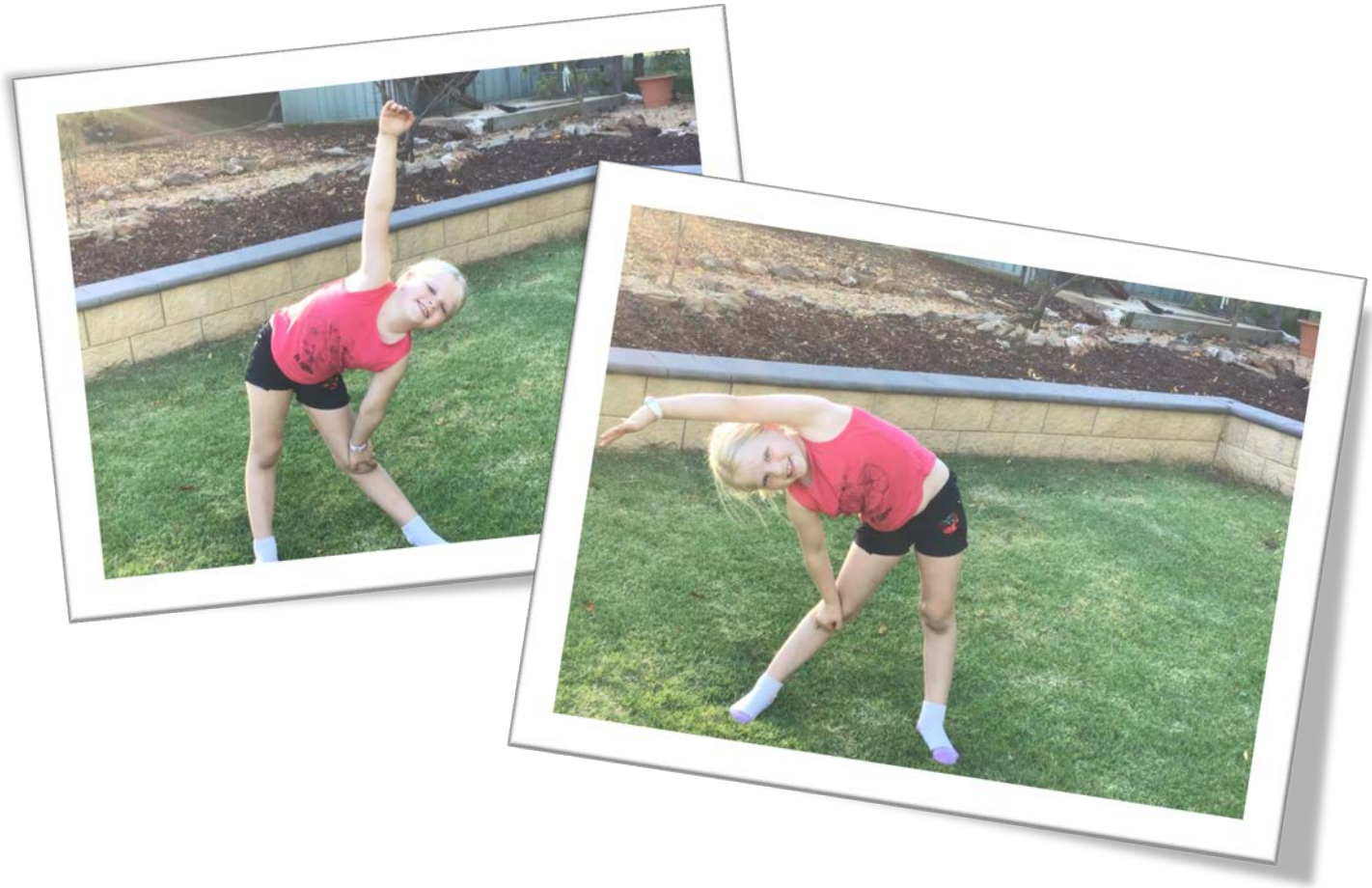
Slowly tilt your star to the other side and breathe out through your mouth.

Repeat both sides.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our shoulders.

How did your upper arm muscles feel while holding that stretch?



Interoception activity

The floss

Start by standing up with your hands by your side.

Place both hands to the left side of your body.

Swing your left hand behind your back and your right in front of you.

Swing them back out and across your body.

Swing your right hand behind your body and your left in front of you.

Repeat this movement for 30 seconds.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our arms.

How did your arm muscles feel while moving?

Giraffe stretch

Find your own space in the room and stand up tall.

Put both arms up and reach up as far as you can.

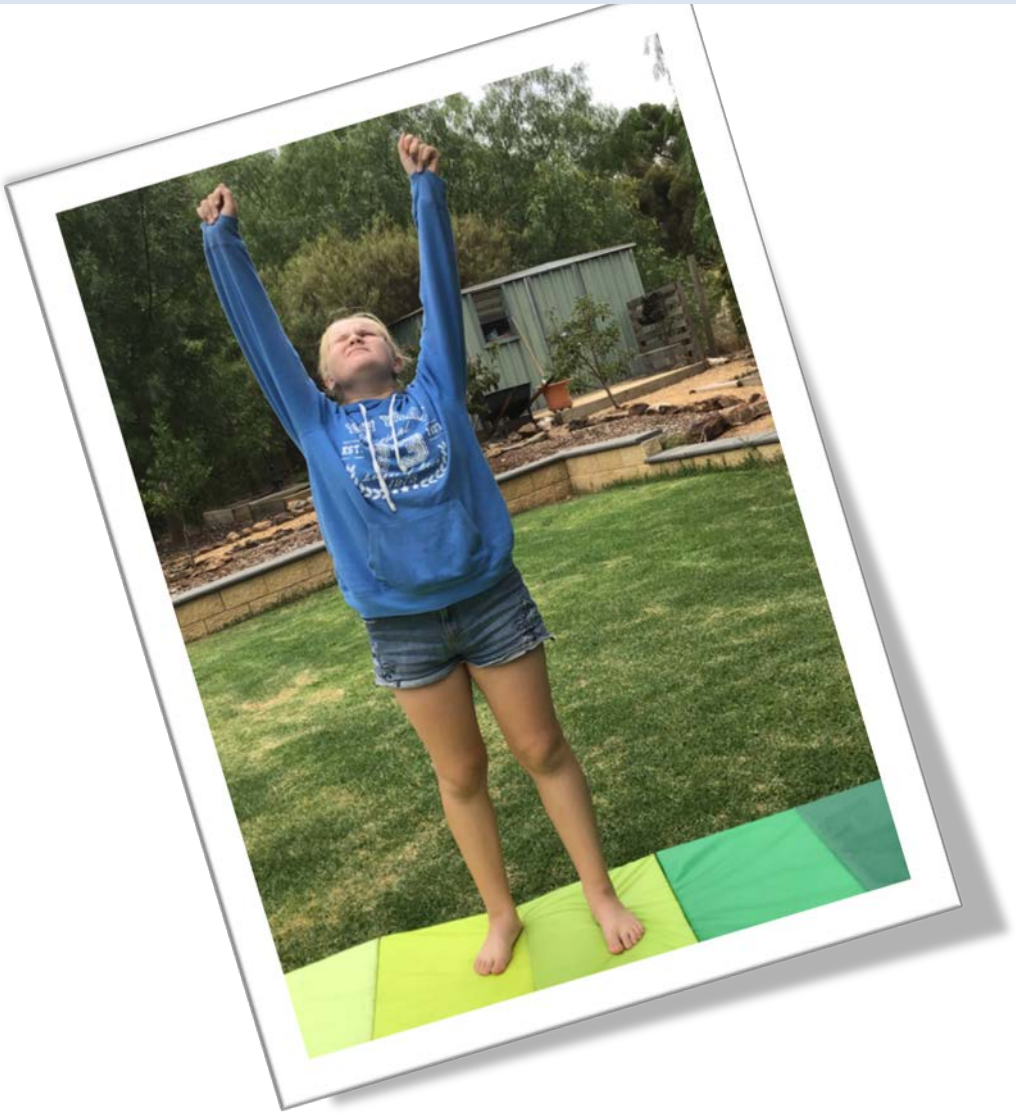
Pretend you are a giraffe, stretching your long neck up to the sky.

Keep holding the stretch for 30 seconds.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our arm muscles.

How did your arm muscles feel while stretching?



Rocking bug

Find your own space in the room and sit on the floor.

Link your hands under your knees.

Lean backwards and rock forwards and backwards.

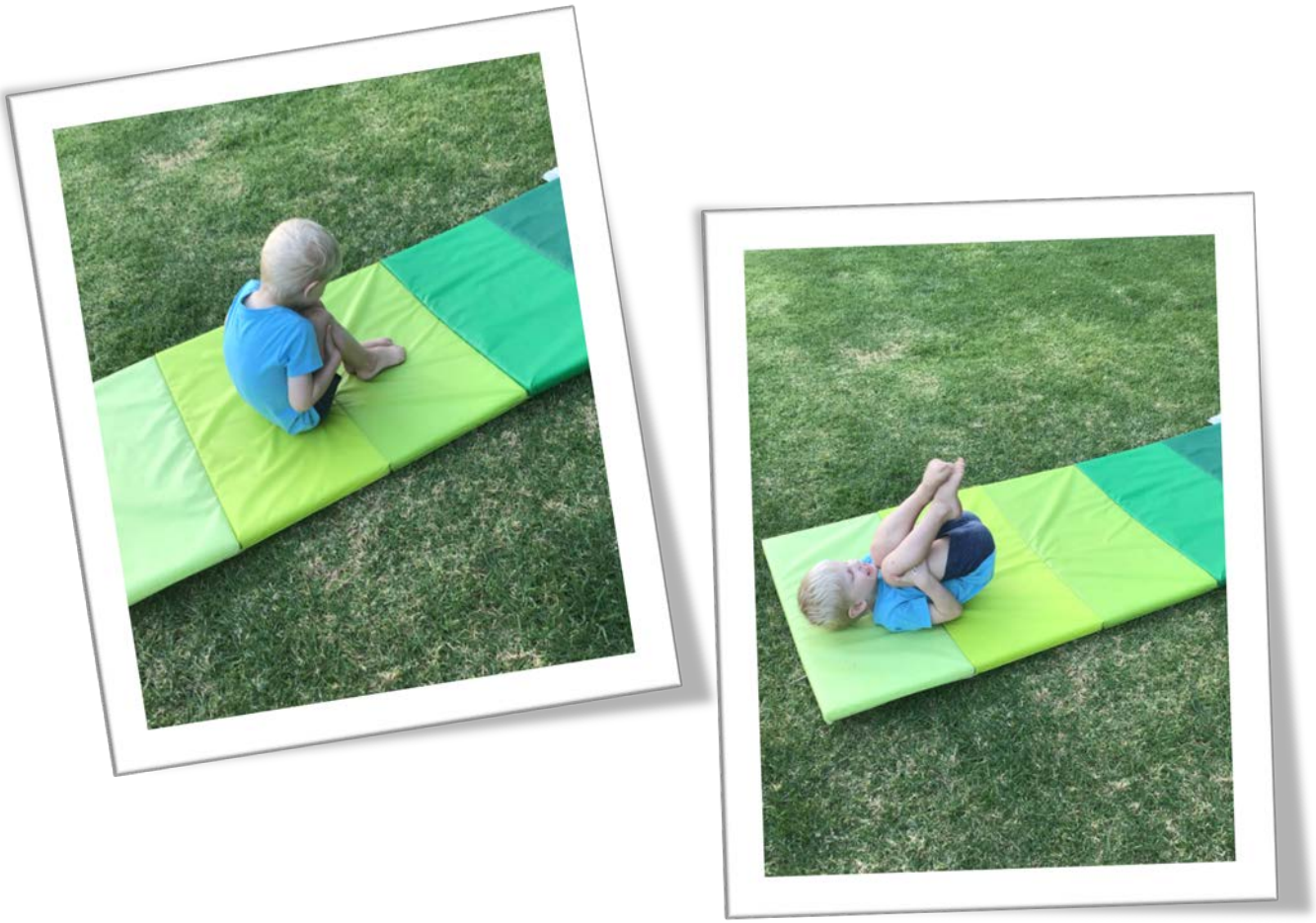
Keep gently rocking for 30 seconds.

Where did you feel your body touching the floor? Point to that part of your body.

We are going to repeat the activity again, but this time we are going to rock sideways.

Does it feel different?

Where did you notice it this time when we were rocking sideways?



Meerkat look-out

For this activity you can either stand up or sit in a chair.

First, slowly tilt your head side to side 3 times.

Tilt it to one side of your body and then slowly tilt it to the other side of your body.

Now we are going to turn out head from side to side 3 times.

Slowly turn your head to the left, then back to the middle, then turn your head to the right.

Repeat 3 times.

Where can you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our neck muscles.

What could you notice about your neck muscles?

Interoception activity

Row, row, row your boat

Find a partner and sit on the ground facing your partner.

Start singing the lyrics to the don with your partner to row, row, row your boat

Row, row, row your boat
gently down the stream,
Merrily, merrily, merrily, merrily
Life is but a dream

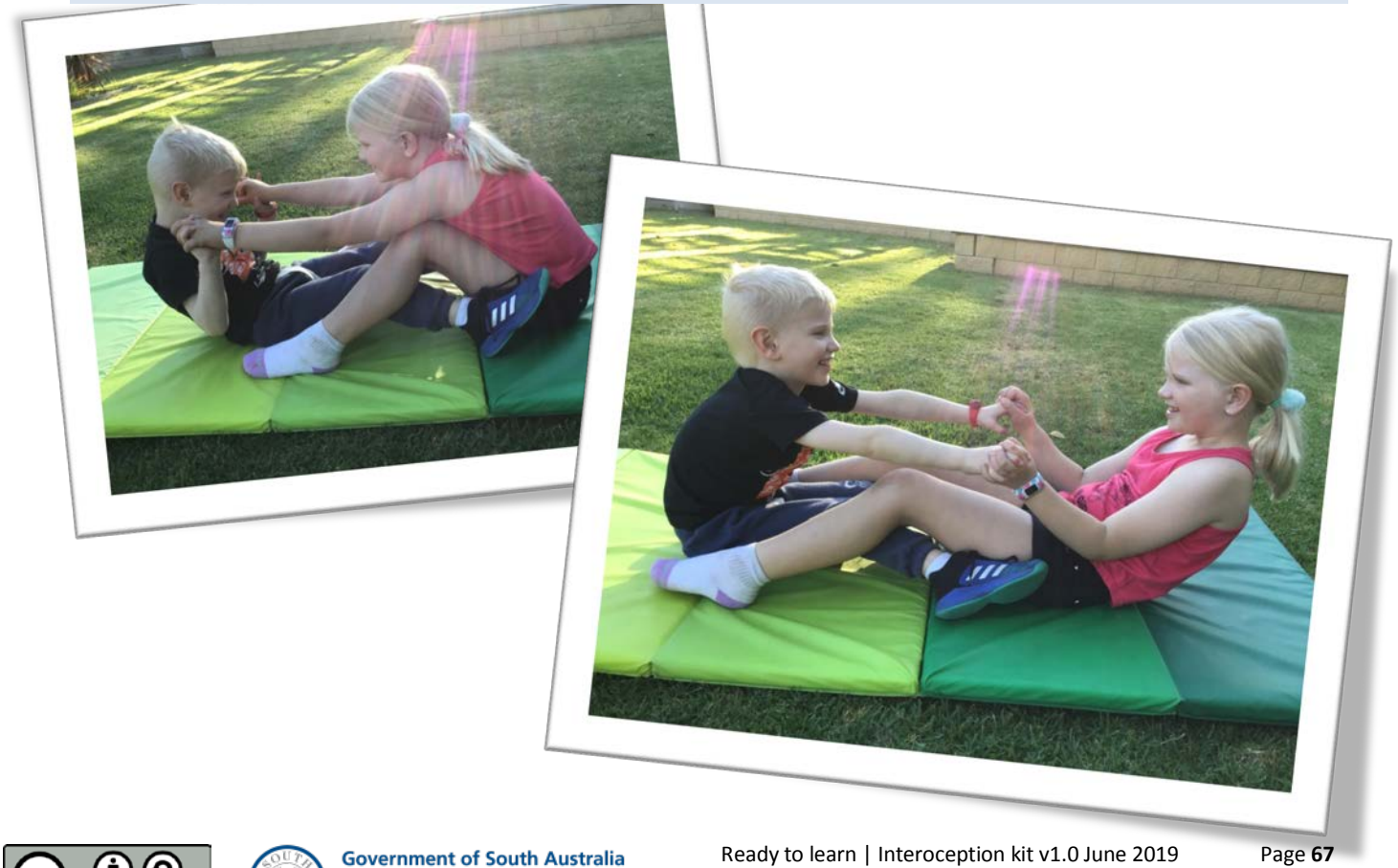
As you are singing the song, put your hands up against your partners hand, have your knees slightly bent.

Push your hands against your partners as you rock backwards and forwards in a 'rowing motion'.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our wrists.

How did your wrists feel while moving?



Progressive muscle focus

Start by laying down on the floor with your hands by your side.

Focus on tensing and relaxing each muscle group for 2 to 3 seconds, all while maintaining deep, slow breaths through your nose and out through your mouth.

- Start with your feet and toes. Tense then relax.
- Move up to your knees and thighs. Tense then relax.
- Move up to your stomach. Tense then relax.
- Focus on clenching your hands. Tense then relax.
- Move up to your arms. Tense then relax.
- Move up to your shoulders. Tense then relax.
- Move up to your face. Tense then relax.

We are going to repeat the activity again, but this time we are going to focus on our breathing in through our nose and out through our mouth.

What did you notice in your body after focusing on your breathing?

Emperor Penguin breathing

Start by laying down on the floor or sitting on a chair.

Place your hands on your belly.

Breathe in through your nose for a long breath.

Then a long breath out of your mouth.

When we breathe in our belly expands like the belly of an Emperor Penguin!

We are going to repeat the activity again, but this time we are going to focus on our belly expanding in and out.

What change did you notice in your body after focusing on your breathing?

Interoception activity

Rainbow breathing

Start by standing up with your hands by your sides.

Take a deep breath in through your nose, as you do raise your arms up over your head making a rainbow shape.

When you breathe out through your mouth, move your arms back down to your side.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our breathing in through our nose and out through our mouth.

What change did you notice in your body after focusing on your breathing?

Interoception activity

Balloon breathing

Start by sitting cross-legged on the floor or sitting on a chair.

Start by cupping your hands around your mouth.

Take a deep breath in through your nose and slowly start to blow out through your mouth.

With your hands, extend them out as if you were blowing up a balloon.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our breathing in through our nose and out through our mouth.

What change did you notice in your body after focusing on your breathing?

Back to back breathing

Find a partner and sit on the floor back to back.

Sit up tall and close your eyes if needed.

Start to breathe in through your nose and out through your mouth.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on our syncing our breath with our partner by feeling the movement in your partners back.

What change did you notice in your body after focusing on your breathing?

10 steps breathing

Find a space in the room and stand tall.

Take a deep breath in through your nose ad out through your mouth.

Once you have done this, take 1 big step forward.

Repeat 10 times.

Where did you feel it in your body?

We are going to repeat the activity again, but this time we are going to focus on breathing in through our nose and out through your mouth.

What change did you notice in your body after focusing on your breathing?

Mountain climbers

In a standing or sitting positing find your pulse on your neck or wrist. Record your pulse for 1 minute.

Start in a plank position.

Pull your knee into your chest, while staying in the plank position.

Continue to switch knees. Pull the knees in right, left, right, so it creates a 'running' motion.

Complete the mountain climbing for 1 minute.

Stand up and find your pulse on your neck or wrist. Record your pulse for 1 minute.

What did you notice about your pulse after completing the mountain climbing activity compared to your pulse before the activity?

Frog Squat Jump

In a standing or sitting positing find your pulse on your neck or wrist. Record your pulse for 1 minute.

Stand tall with your feet a little wider than hip width and your feet slightly turned out.

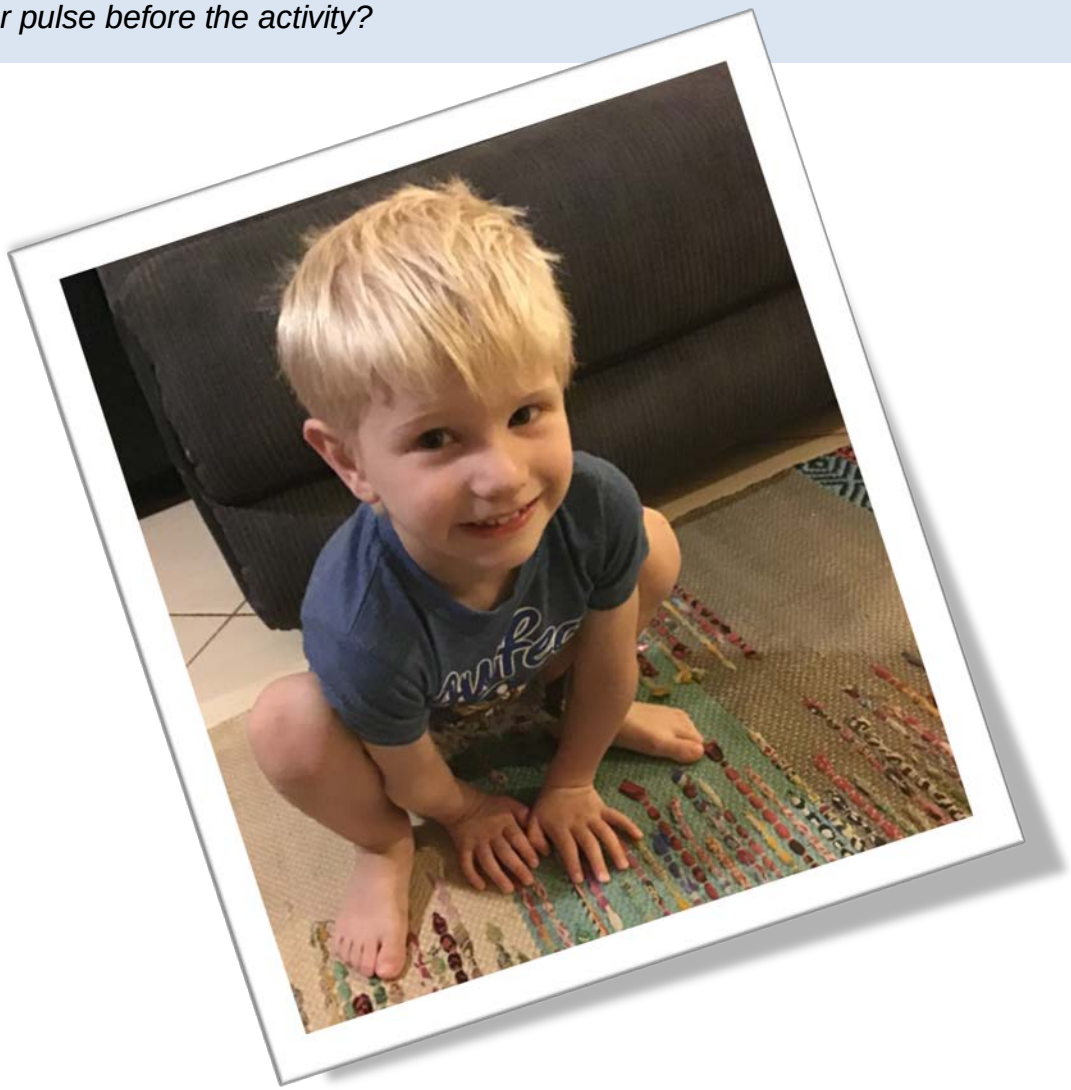
Squat down into a frog position and place your hands on the ground between your legs.

Spring off your bent legs, throwing your arms into the air.

Repeat this squat and jump for 30 seconds.

Stand up and find your pulse on your neck or wrist. Record your pulse for 1 minute.

What did you notice about your pulse after completing the frog squat jump activity compared to your pulse before the activity?



Jumping Jacks

In a standing or sitting positing find your pulse on your neck or wrist. Record your pulse for 1 minute.

Stand with your feet together, knees slightly bent and arms at your side.

Jump while raising your arms and separating legs to sides.

Land on forefoot with legs apart and arms overhead.

Complete the Jumping Jacks for 30 seconds.

Stand up and find your pulse on your neck or wrist. Record your pulse for 1 minute.

What did you notice about your pulse after completing the Jumping Jacks compared to your pulse before the activity?

Regulating body temperature

Trace a student on paper, or have a blank body drawn on a piece of paper.

After coming inside from play, ask the students to sit and notice where inside their bodies they feel heat.

Ask each student to circle on the paper body where they are noticing heat.

Example, they could feel that their face feels hot, or their underarms feel hot and sweaty.

Ask the students to share where they noticed the heat.

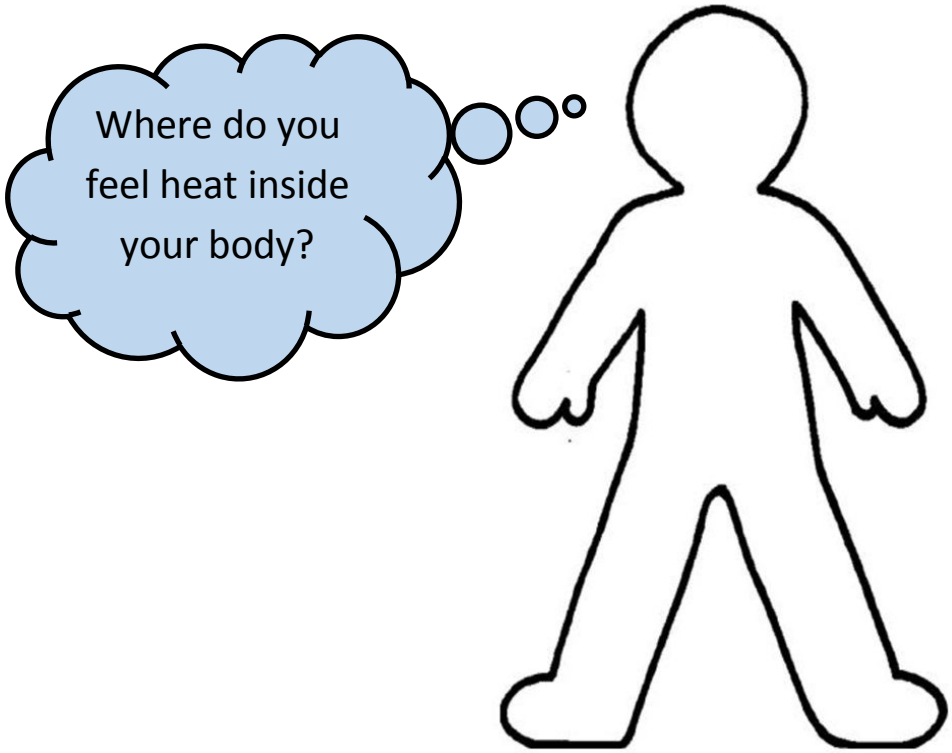
Discuss strategies they can use to cool down.

Example, take their jumper off; have a drink of water; turn on the air conditioner.

It may be useful to use a mirror to show students their body cues.

Example, use a mirror to show students that their face is red, they are puffing and they are sweating.

These body cues show the body is hot and needs to cool down.



Interoception activity

Hydration

Discuss with students 'how do they know when they are thirsty, what are the body signals?'

These signals could include

- Dry mouth
- Fatigue
- Headache
- Dizziness

Discuss with students that our urine is a very important way that our body shows our hydration levels.

Ask the students:

- What do you think the colour of urine should be?
- What do you think urine should smell like?

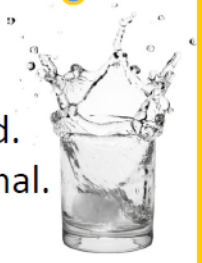
When you are hydrated your urine should be clear and have no smell.

Show students the visual hydration chart (on the next page) and discuss that we need to ensure that when we are dehydrated we hydrate by drinking water.

REHYDRATION

Use this urine colour chart to give yourself an idea of whether you are drinking enough water or if you are dehydrated.

Are you drinking enough water?



Doing okay.
You are probably well hydrated.
Continue drinking water as normal.

You are fine!
You could probably drink a little more water.
Even just a small glass.

Drink about 1/2 a bottle of water within the hour. If you're outside sweating, drink a whole bottle!

Drink water right now!
At least 1/2 a bottle.
If you are outside, drink a whole bottle.

Drink 2 bottles of water right now, at least 1 litre. If your urine is darker than this and/or red or brown, then you will need to see a doctor.

Importance of being hydrated:

Our bodies are made up of approximately 70% water. Water has many important functions in the body, including; regulating your body's temperature, digesting food and getting rid of waste. Your body loses water throughout the day when you sweat, breathe and urinate. It is important to replace the water you have lost to prevent yourself from becoming **dehydrated**.

Bristol Stool Chart

Discuss with students 'how do they know when they are constipated, what does our body tell us?

These signals could include

- Passing fewer than 3 stools a week
- Having lumpy or hard stools
- Straining to have bowel movements

Discuss and show student the Bristol Stool Chart (on the next page)

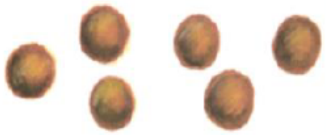
Health poo should be (blobs, thin snakes, or soft-serve ice-cream) and formed poo (pellets, logs, and 'thick and bumpy sausage') may indicate signs of constipation.

Dehydration is one of the most common causes of constipation.

The food you eat makes its way from your stomach to the large intestine, or colon. If you don't have enough water in your body already the large intestine will soak up water from your food waste.

Bristol Stool Chart – Know your poo and what to do.

TYPE 1 Severe constipation: looks like separate small hard lumps, can be hard to pass



→ Drink lots more water & increase dietary fibre with fruit and vegetables & go to see your GP if it keeps happening.

TYPE 2 Constipation: looks like a lumpy sausage shape, can be hard to pass.

→ Drink more water & increase dietary fibre with fruit and vegetables.

TYPE 3 ✓ Healthy: looks like a sausage shape with cracks on the surface.

→ Healthy diet but drink a little more water. Well done.

TYPE 4 ✓ Healthy: looks like a smooth sausage shape.

→ Healthy diet and good water intake. Well done.

TYPE 5 Loose: looks like separate soft blobs, easy to pass.

→ Increase dietary fibre with fruit and vegetables.

TYPE 6 Very loose/diarrhoea: looks like mushy soft fluffy, easy to pass.

→ Diarrhoea could be on its way. Keep your fluids up.

TYPE 7 Diarrhoea/Leakage from severe constipation: looks liquid.

→ Drink water & go to see your GP if it keeps happening.