

# Ready to learn

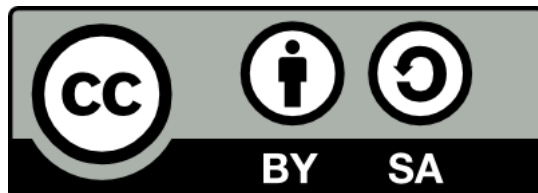


# Interoception kit



Government  
of South Australia

Department for Education



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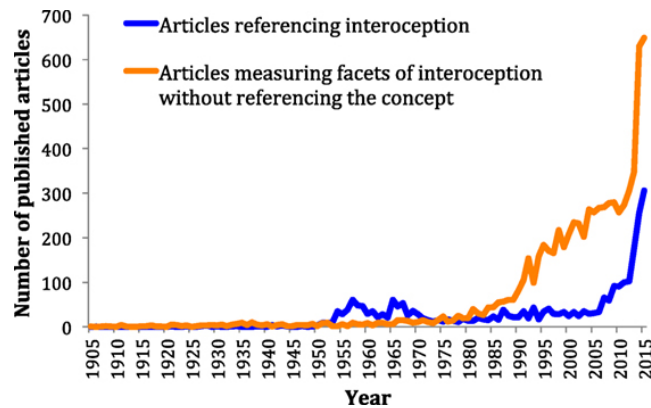
This kit contains the contents of the following:

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

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## 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/fpsy.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.

<b>Dominant culture</b>	<b>Across: health, education, law etc.</b>	<b>Aboriginal Australian cultures</b>
Individualism		Communal/collectivism
Singular truth <ul style="list-style-type: none"> <li>• Scientific/proven evidence based</li> <li>• Facts versus beliefs</li> <li>• Separation of mind/body/spirit</li> </ul>		Complex multiple truths <ul style="list-style-type: none"> <li>• Spiritual is fact/truth</li> <li>• Mind/body/spirit integrated</li> <li>• Time is connected to place and to eternity</li> </ul>
Materialism/consumerism <ul style="list-style-type: none"> <li>• Value ownership/private property</li> <li>• Land has economic purpose value</li> </ul>		Ecological <ul style="list-style-type: none"> <li>• Value shared guardianship</li> <li>• Sacred relationship with land</li> </ul>
Power based decision making <ul style="list-style-type: none"> <li>• Might is right</li> <li>• Right/wrong</li> </ul>		Consensual decision making <ul style="list-style-type: none"> <li>• Consideration of all views (including ancestors) to find balance and consensus</li> </ul>

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*April 2019*

## TABLE OF CONTENTS

Department for Education forms and resources .....	7
References.....	10
Further information .....	12
Testimonials .....	13
<b>Interoception 101 Activity Guide .....</b>	<b>15</b>
1. Interoception explanation.....	16
2. Interoception and the autism spectrum.....	19
3. Developing interoception .....	20
3.1 Responding to external sensory input .....	20
3.2 Responding to noise .....	20
3.3 Responding to temperature (cold and heat).....	21
3.4 Default energy level.....	22
3.4.1 Energy level – mind and body #1 .....	22
3.4.2 Energy level – mind and body #2 .....	23
3.4.3 MIND PHOTOS .....	24
3.4.4 BODY PHOTOS .....	26
3.4.5 BODY OUTLINE.....	28
3.4.6 WORD BANK .....	29
3.5 Anger .....	31
3.5.1 Responding to anger with volcano breathing.....	31
4. Interoception activities .....	32
4.1 Feeling muscles (hands).....	33
4.2 Feeling muscles (feet).....	34
4.3 Feeling muscles (arms).....	35
4.4 Feeling muscles (legs).....	36
4.5 Feeling muscles (whole body).....	37
4.6 Feeling temperature #1.....	38
4.7 Feeling temperature #2.....	39
4.8 Feeling temperature #3.....	40
4.9 Feeling temperature #4.....	41
4.10 Feeling breathing #1 .....	42
4.11 Feeling breathing #2.....	43
4.12 Feeling breathing #3.....	44
4.13 Feeling pulse #1 .....	45
4.14 Feeling pulse #2 .....	46
4.15 Feeling firm versus light touch #1.....	47
4.16 Feeling firm versus light touch #2.....	48

<b>Interoception 201 Activity Guide</b> .....	49
1. Foreword .....	50
2. Introduction to interoception .....	50
2.1 Interoception is our eighth sense .....	50
2.2 What is interoception? .....	50
2.3 Benefits of teaching interoception .....	50
2.4 Models of interoception for Department for Education sites .....	51
2.5 Models of interoception for in class teaching .....	51
2.6 What is an interoception activity? .....	51
2.7 Structure of an interoception activity? .....	51
2.8 Interoception research .....	52
3. Interoception activities .....	52
3.1 Muscles activities   Wall squat .....	53
3.2 Muscles activities   Core muscles .....	54
3.3 Muscles activities   Cat/Cow stretch .....	55
3.4 Muscles activities   Knee to chest stretch .....	56
3.5 Muscles activities   Shoulder strength .....	57
3.6 Muscles activities   Butterfly wings .....	58
3.7 Muscles activities   Surfing stretch .....	59
3.8 Muscles activities   The knuckle cracker .....	60
3.9 Muscles activities   The plank .....	61
3.10 Muscles activities   The star .....	62
3.11 Muscles activities   The floss .....	63
3.12 Muscles activities   Giraffe stretch .....	64
3.13 Muscles activities   Rocking bug .....	65
3.14 Muscles activities   Meerkat look-out .....	66
3.15 Muscles activities   Row, row, row your boat .....	67
3.16 Breathing activities   Progressive muscle focus .....	68
3.17 Breathing activities   Emperor Penguin breathing boat .....	69
3.18 Breathing activities   Rainbow breathing boat .....	70
3.19 Breathing activities   Balloon breathing boat .....	71
3.20 Breathing activities   Back to back breathing boat .....	72
3.21 Breathing activities   10 steps breathing boat .....	73
3.22 Pulse activities   Mountain climbers .....	74
3.23 Pulse activities   Frog Squat Jump .....	75
3.24 Pulse activities   Jumping Jacks .....	76
3.25 Mini lesson   Regulating body temperature .....	77
3.26 Mini lesson   Hydration .....	78
3.27 Mini lesson   Bristol Stool Chart .....	81

## 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.

## **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=PLp3vpYbUmlqcqMrdfj4vCvxUHrQB857m>

<https://youtu.be/AvQb0gre5KE?list=PLp3vpYbUmlqcqMrdfj4vCvxUHrQB857m>

Mindful body awareness of taste – need a piece of fruit or chocolate to do this activity:

<https://youtu.be/SAWSYefLEcg?list=PLp3vpYbUmlqfFkalWKK1jbcearpKKpL8F>

Mindful body awareness activity, starts with breathing activity:

<https://youtu.be/eHjYmfvJK5Q?list=PLp3vpYbUmlqfFkalWKK1jbcearpKKpL8F>

Guided 5 minute daily mindfulness activity (video is 6.09 mins):

[https://youtu.be/y1dmKZg13Yw?list=PLp3vpYbUmlqdmWF7Gr\\_imkJjvbuoTU87u](https://youtu.be/y1dmKZg13Yw?list=PLp3vpYbUmlqdmWF7Gr_imkJjvbuoTU87u)

High school (could be used with upper primary) mindful body awareness related to emotions guided activity: [https://youtu.be/KTaA6ZiBtg8?list=PLp3vpYbUmlqdmWF7Gr\\_imkJjvbuoTU87u](https://youtu.be/KTaA6ZiBtg8?list=PLp3vpYbUmlqdmWF7Gr_imkJjvbuoTU87u)

High school (could be used with upper primary) mindful thought awareness guided activity:

[https://youtu.be/KGPNMtHgenk?list=PLp3vpYbUmlqdmWF7Gr\\_imkJjvbuoTU87u](https://youtu.be/KGPNMtHgenk?list=PLp3vpYbUmlqdmWF7Gr_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 our 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*



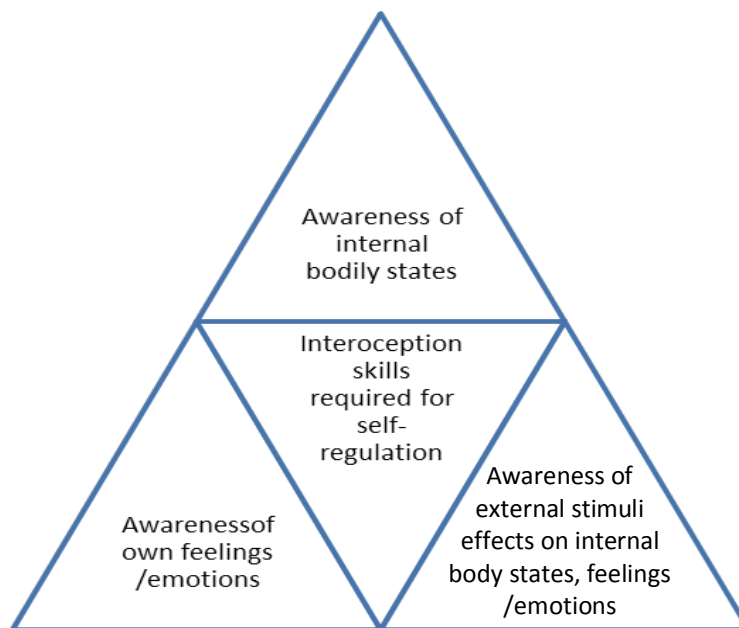
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# 1. Interoception explanation

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	<ul style="list-style-type: none"> <li>a. Managing responses of internal body states to external stimuli</li> <li>b. Socio-emotional self-regulation</li> </ul>

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.

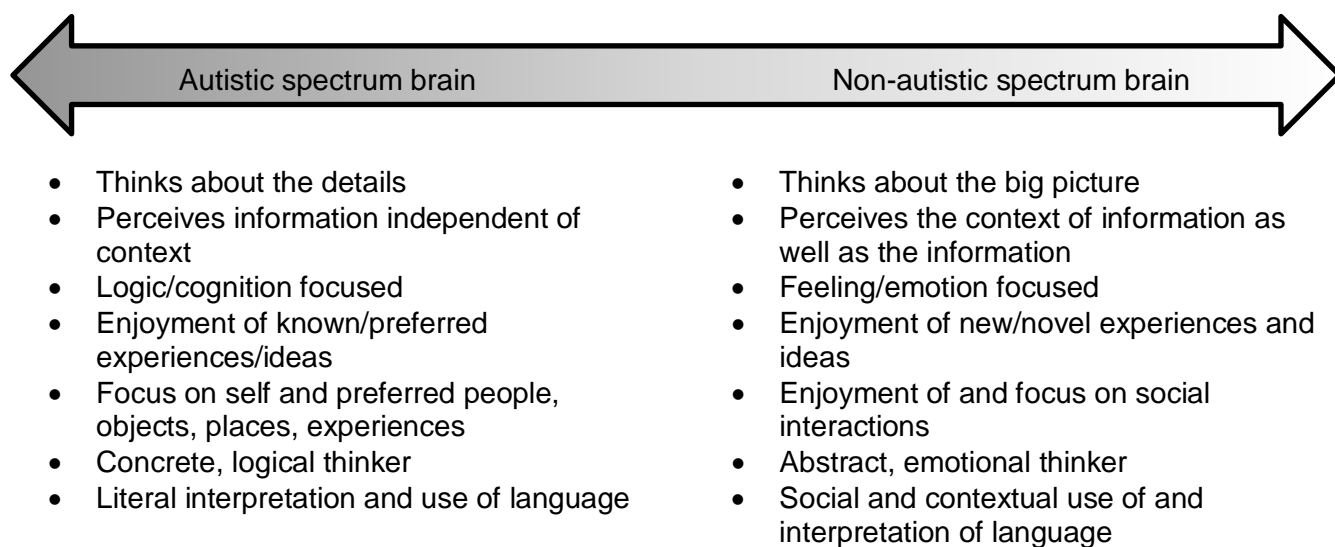
Where children and young people are still developing interoceptive skills the use of visuals or verbal prompts are effective support tools. Below is a table with some examples of visual and verbal prompts and their rationale.

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 <a href="#">hydration chart</a> .
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 <a href="#">regulation scale</a> .	"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 improve 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).



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 <b>TO</b>	Listen <b>FOR</b>
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 <a href="http://www.acoustica.com/sounds.htm">http://www.acoustica.com/sounds.htm</a>	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

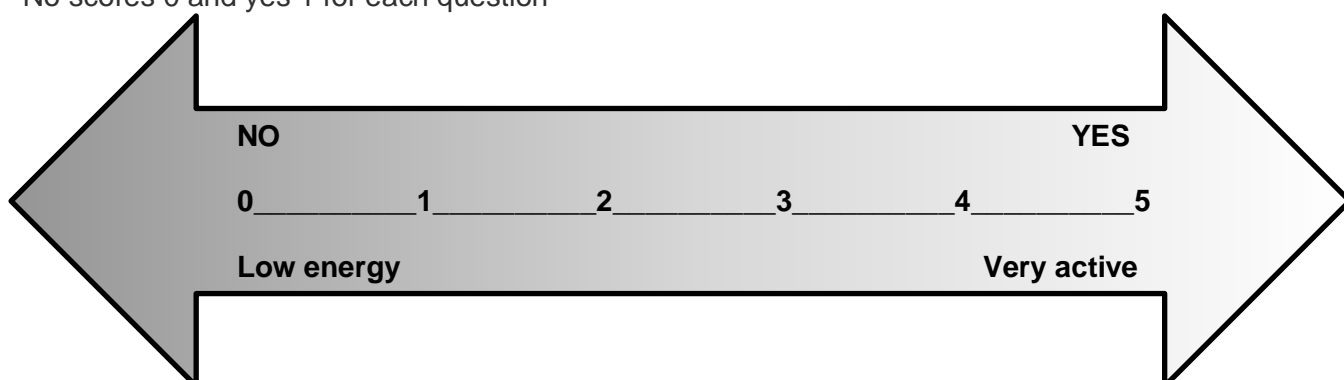
### 3.4 Default energy level

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 learn 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).

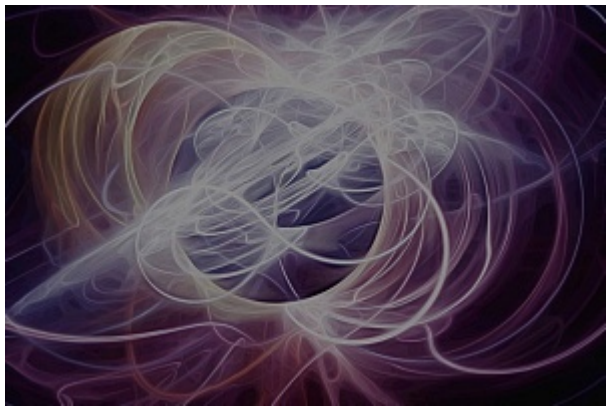
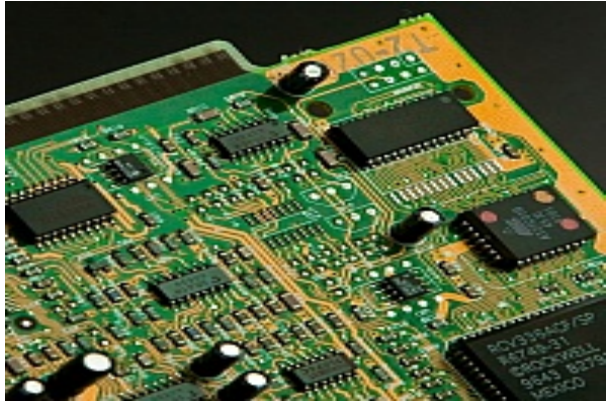
Repeat this activity when children and young people are energetic and again when they are tired, asking them to choose the photographs that they think are most like the inside of their brain and most represent their energy levels **AT THIS MOMENT IN TIME**. Direct the discussion to enable them to see 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

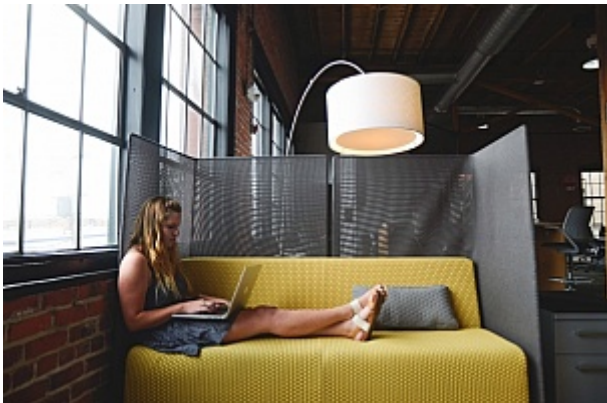
Provide the children and young people with their body outline ([section 3.4.5](#)) and/or the word bank ([section 3.4.6](#)) words first thing in the morning, preferably on a cold, wet, dark winter morning or after a long weekend in other seasons. Ask the children and young people to identify some of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

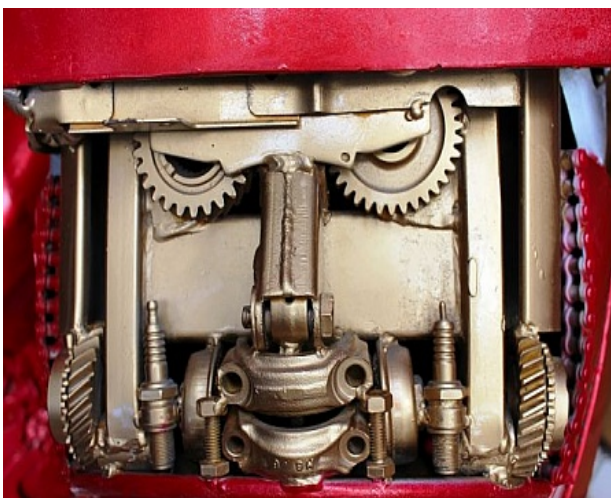
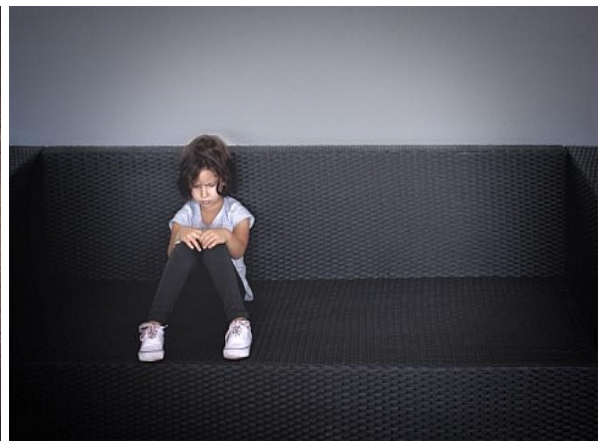
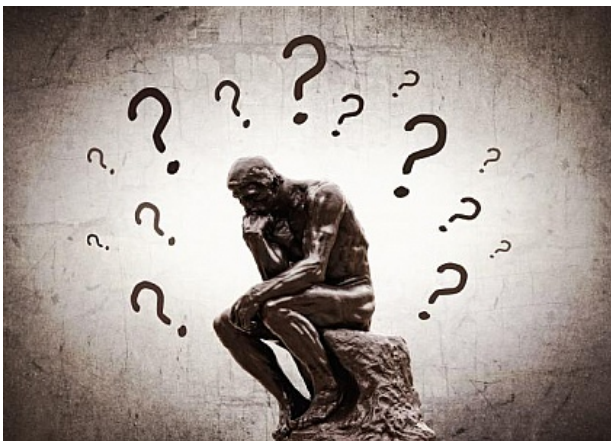
### 3.4.3 MIND PHOTOS





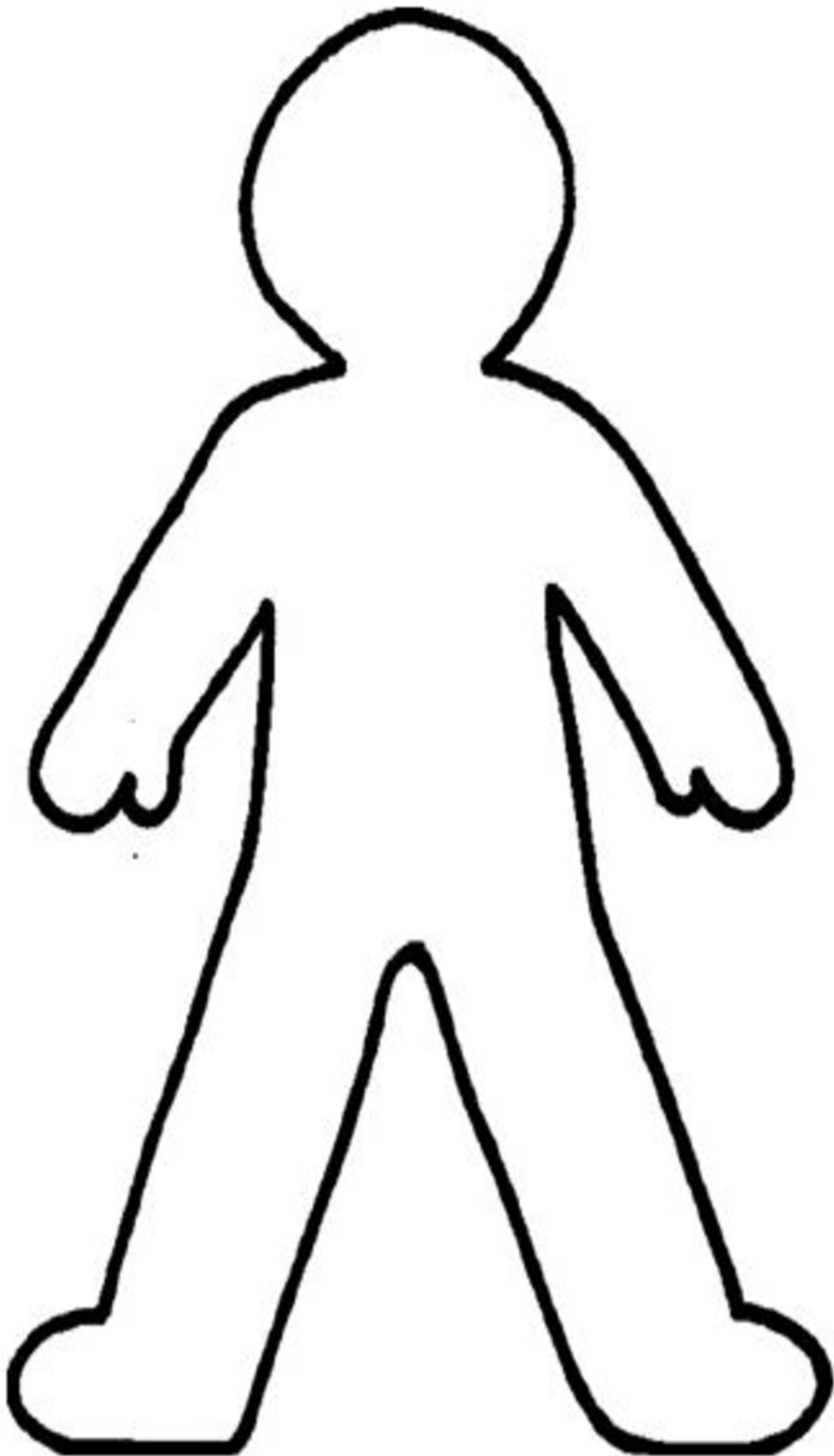
### 3.4.4 BODY PHOTOS





Photos courtesy of and copyright Free Range Stock, [www.freerangestock.com](http://www.freerangestock.com) or taken by and/or of Emma Goodall in 2013 and 2015.

### 3.4.5 BODY OUTLINE



## 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

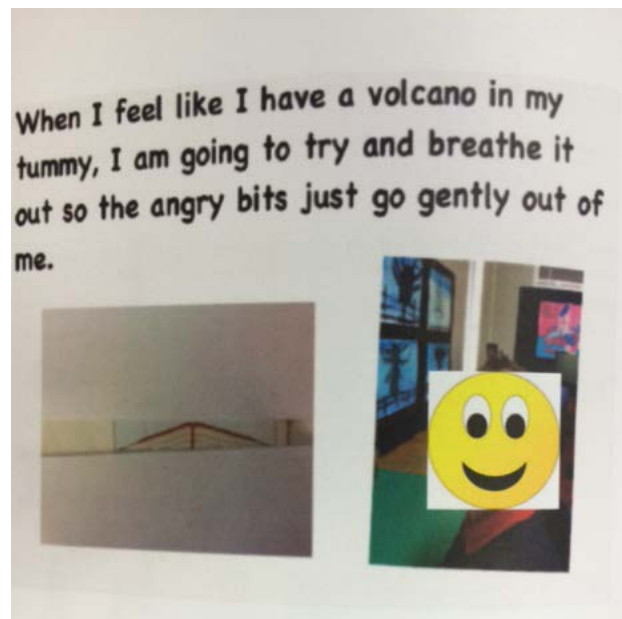
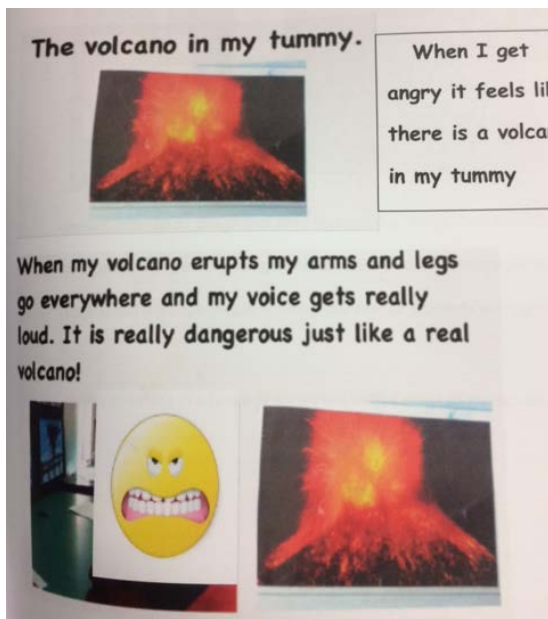
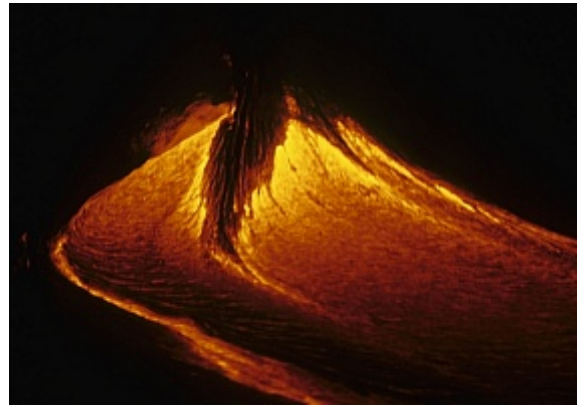
### 3.5.1 Responding to anger with volcano breathing

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.

# Interoception activity

## 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

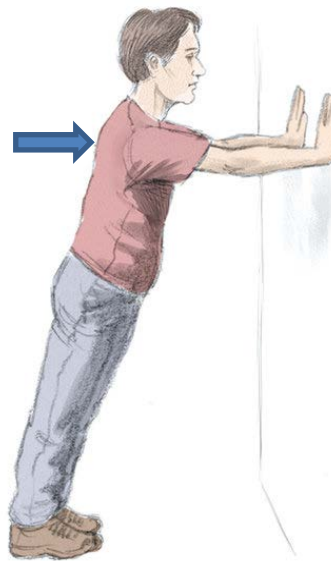
# Interoception activity

## 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

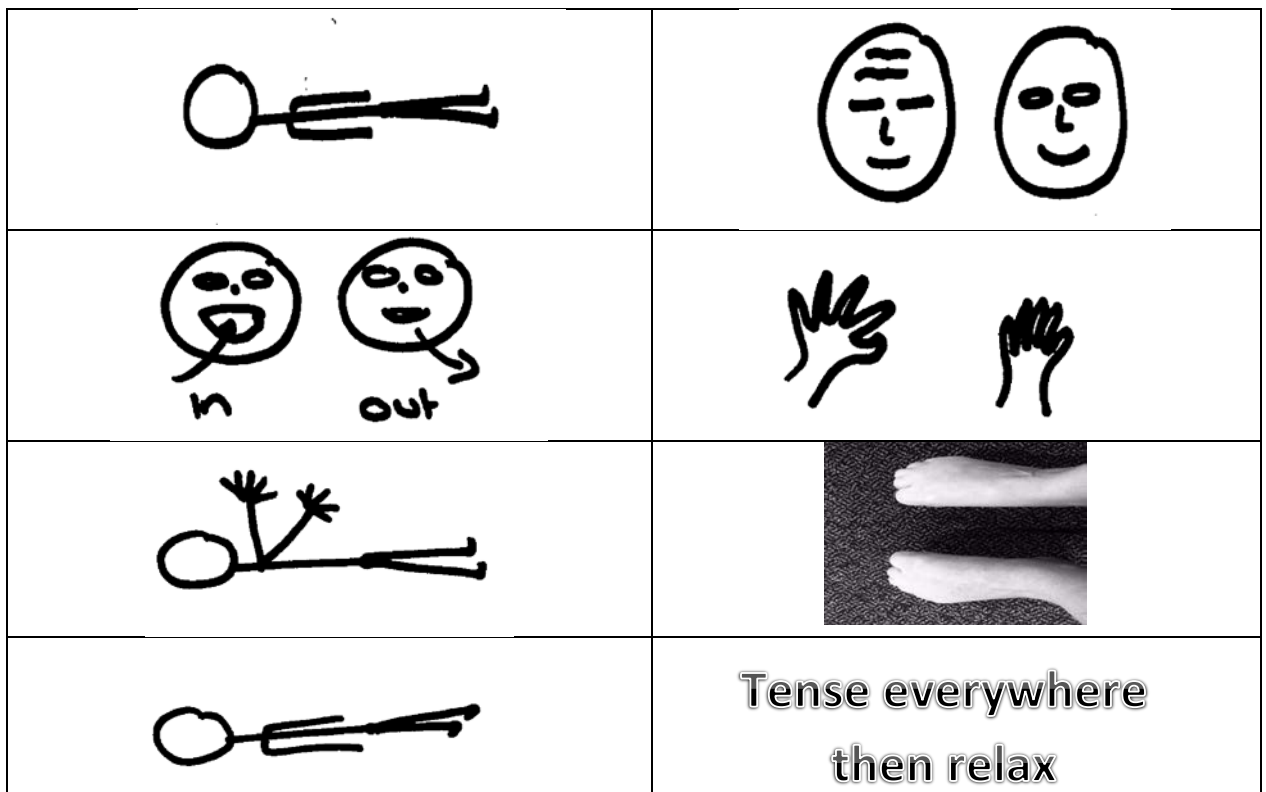
### Follow on activity/exploration:

*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

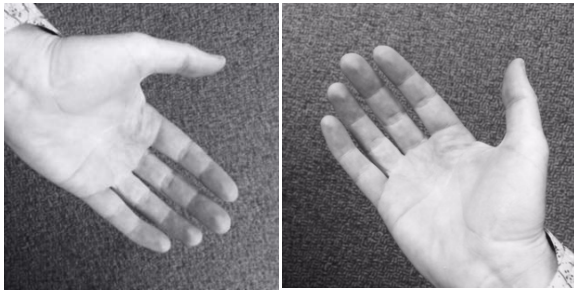
1. Lie down in a space on the floor, with your arms relaxed by your side, you can close your eyes if you want to. Breathe slowly.
2. As you breathe in scrunch your eyes and forehead and then as you breathe out relax them again.
3. As you breathe in open your mouth as wide as possible then as you breathe 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?*

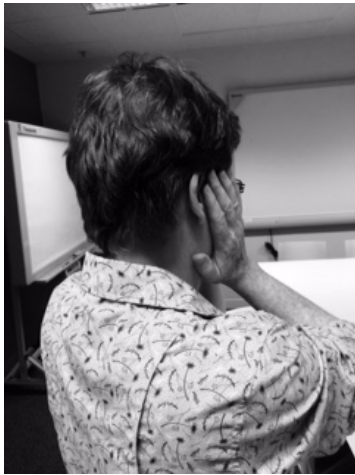
*What is the safe temperature range for human bodies?*

*How do humans cool down/warm up?*

# Interoception activity

## Feeling temperature #2

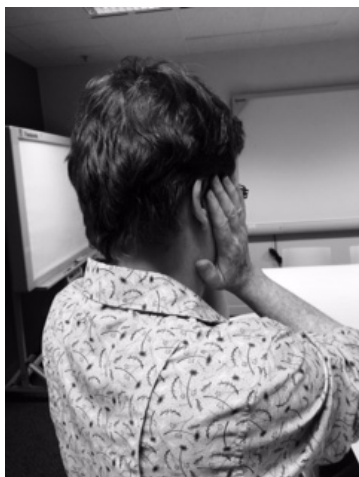
1. Stand still, concentrate on how hot, warm, cool or cold your body feels. Touch your face with your hands.
2. *How warm or cool does your face feel?*
3. (after 10 -30 seconds) Now, run really fast on the spot for one minute, I will tell you when to stop.
4. (after 1 minute) Ok, stop now. Touch your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

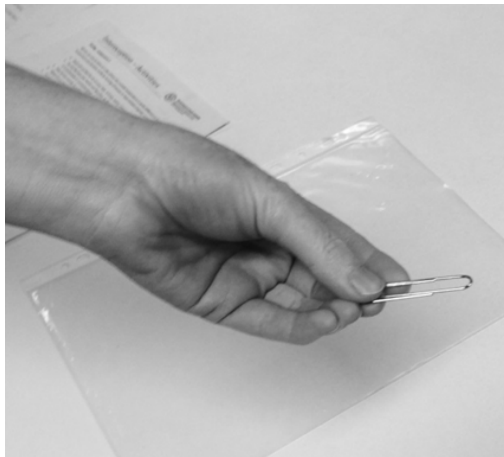
*Does your face get hotter or colder if you go outside?*

# 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

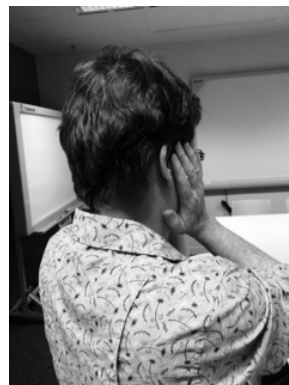
## Feeling temperature #4

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?*



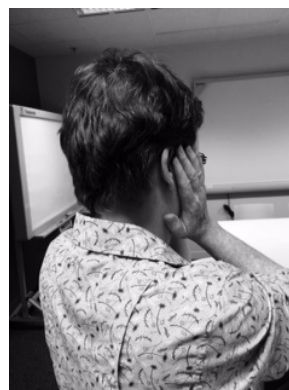
1. Person in classroom



2. Hand on face



3. Person in sunshine



4. Hand on face

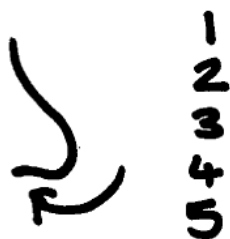
### Follow on activity/exploration:

*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 **inflate** explain that is like the air being breathed **INTO** our lungs and when the balloon lets air out, it is like us **exhaling** which is 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.



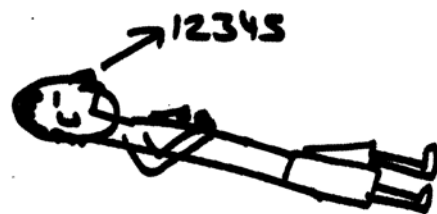
1. Hands on ribs



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 our 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 you 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?*

# Interoception activity

## 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?*

# Interoception activity

## 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

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*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	<b>8. Interoception</b>

### 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 look straight down to the ground.

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

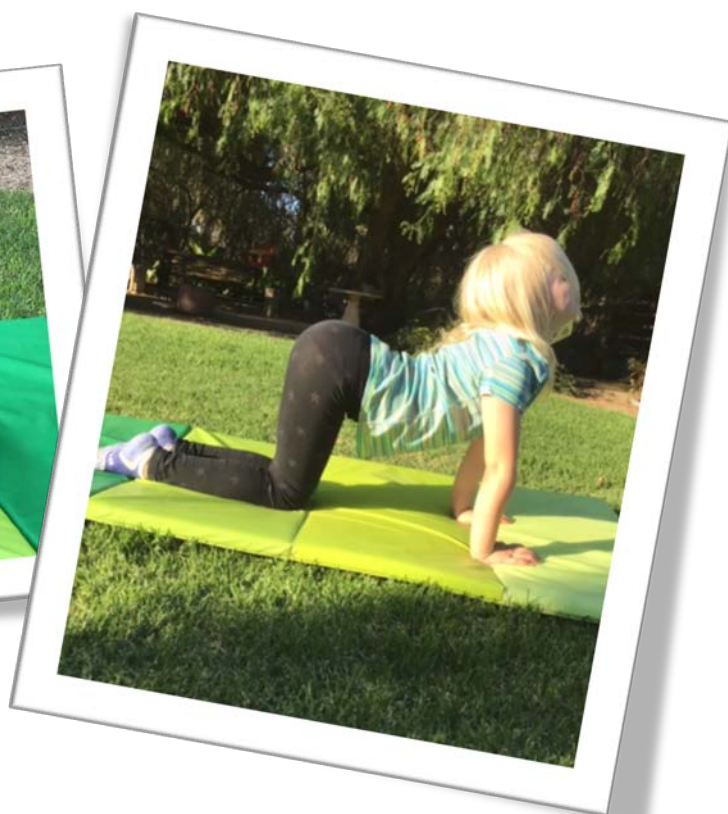
When you exhale through your mouth, lift the belly and spine up so the back is arched like a cat.

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?*



# Interoception activity

## 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?*



# Interoception activity

## 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.

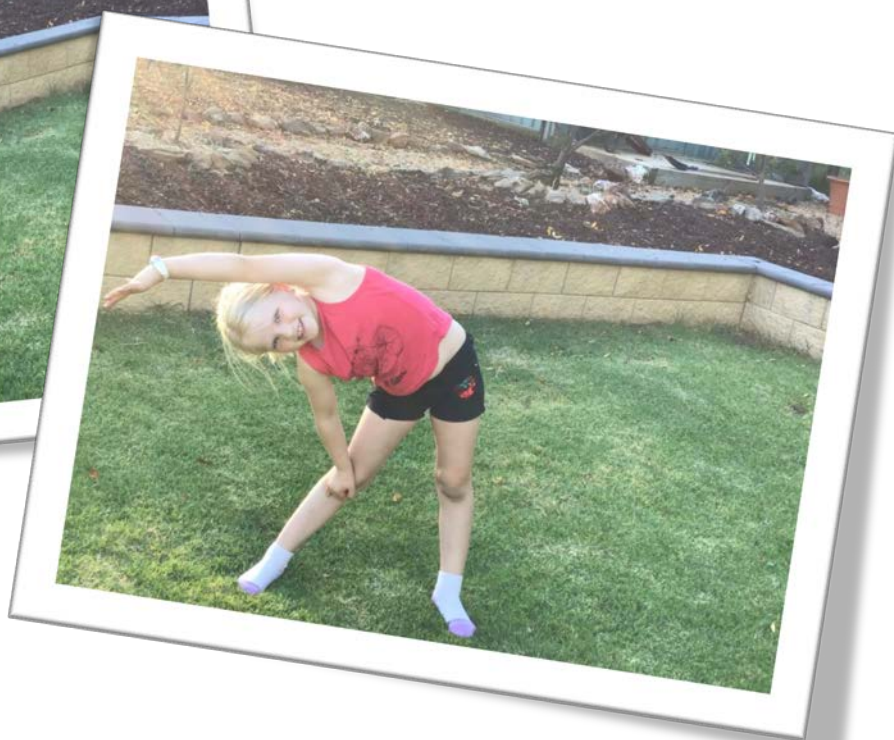
Slowly tilt your star to the other side and breathe out through your mouth.

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?*



# Interoception activity

## 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?*



# Interoception activity

## 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.

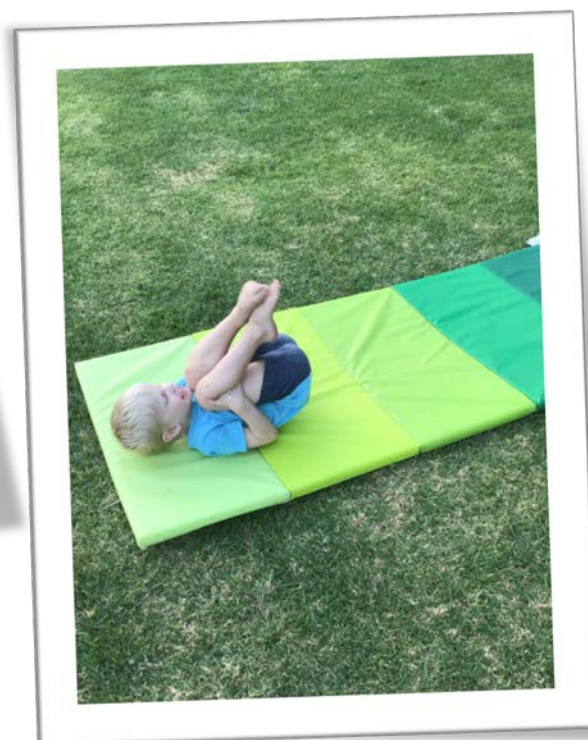
Keep gently rocking for 30 seconds.

*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?*



# Interoception activity

## 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 our 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*

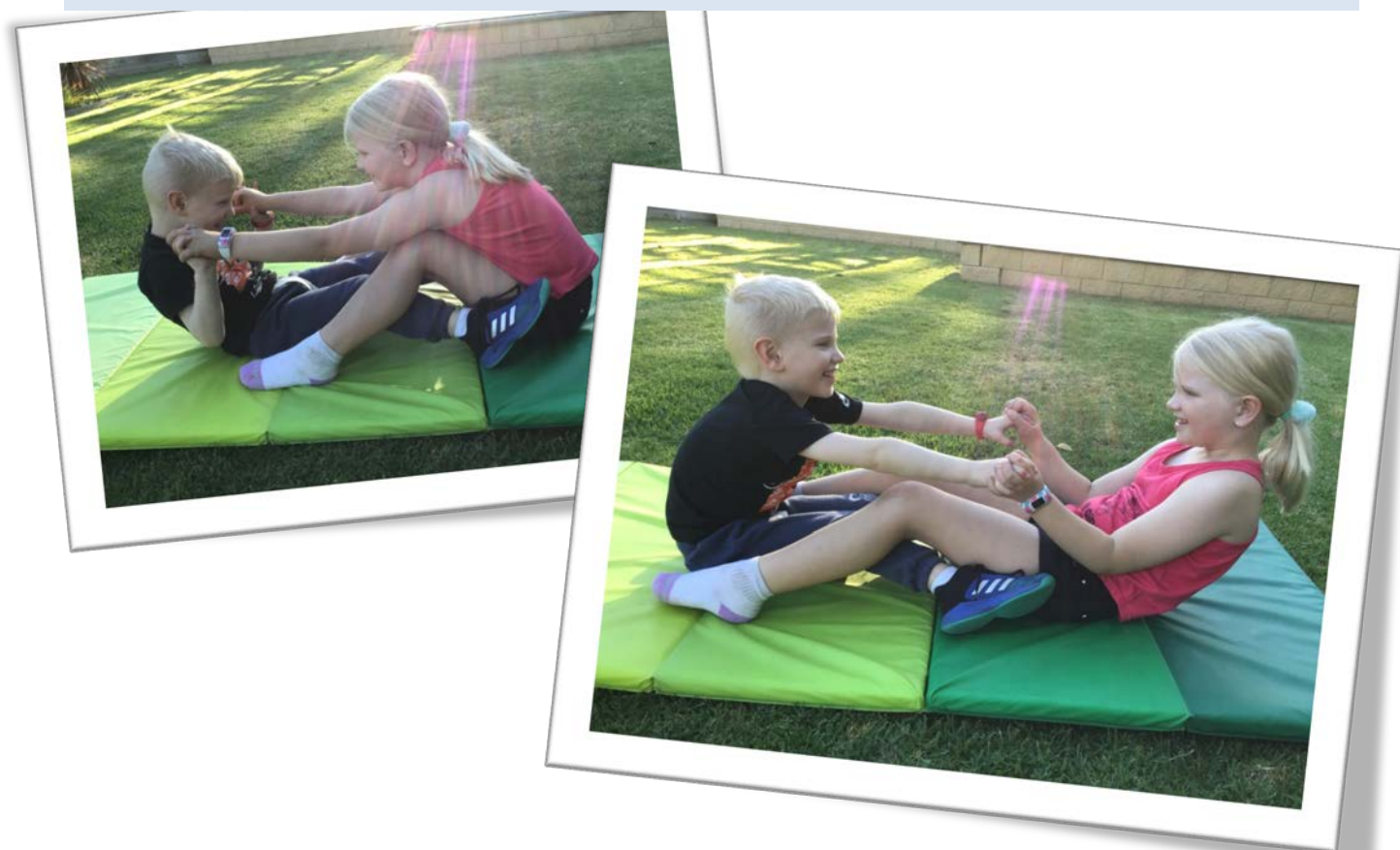
As you are singing the song, put your hands up against your partners hand, have your knees slightly bent.

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?*



# Interoception activity

## 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?*



# Interoception activity

## 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?*



# Interoception activity

## 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?*



# Interoception activity

## 10 steps breathing

Find a space in the room and stand tall.

Take a deep breath in through your nose and 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?*



# Interoception activity

## Mountain climbers

*In a standing or sitting position 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?*



# Interception activity

## Frog Squat Jump

*In a standing or sitting position 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.

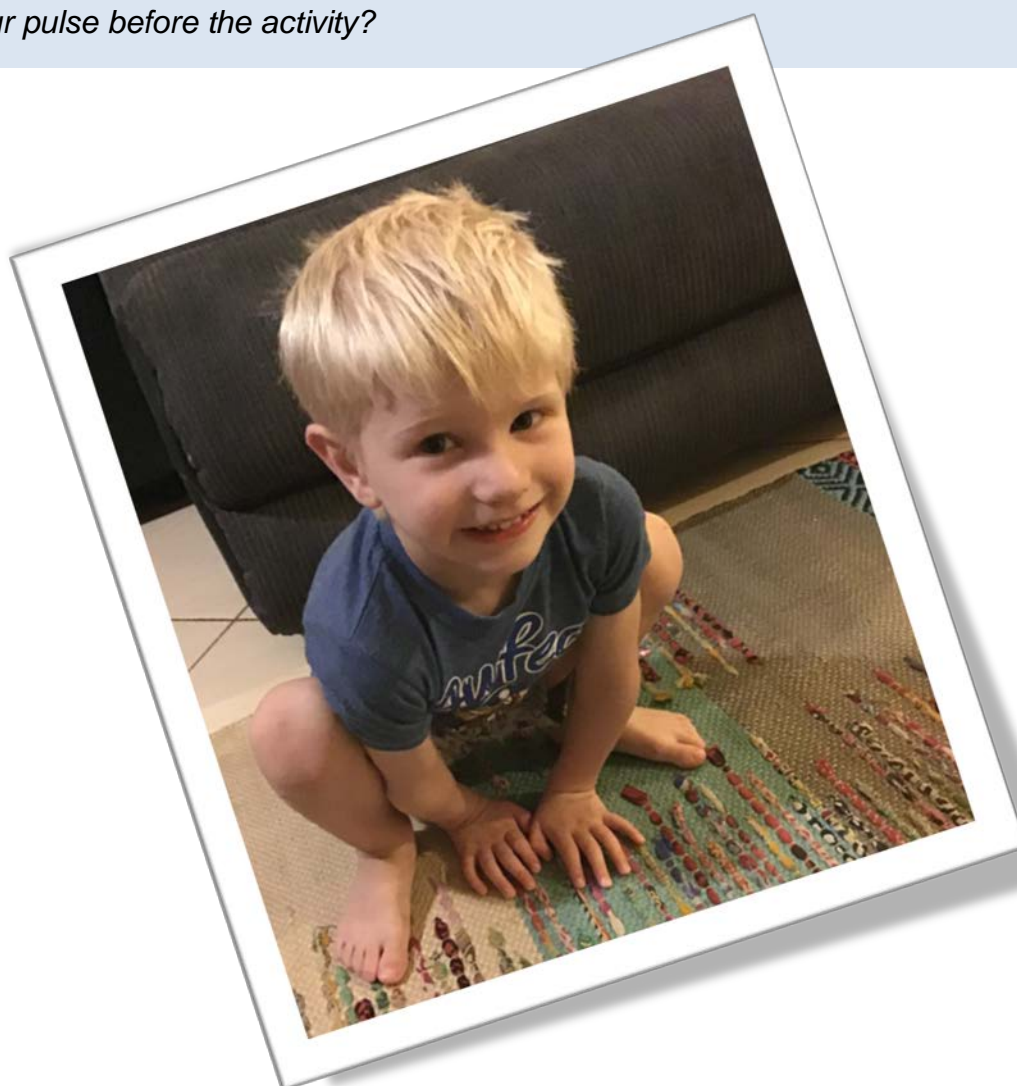
Squat down into a frog position and place your hands on the ground between your legs.

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?*



# Interception activity

## Jumping Jacks

*In a standing or sitting position 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?*



# Interoception 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.

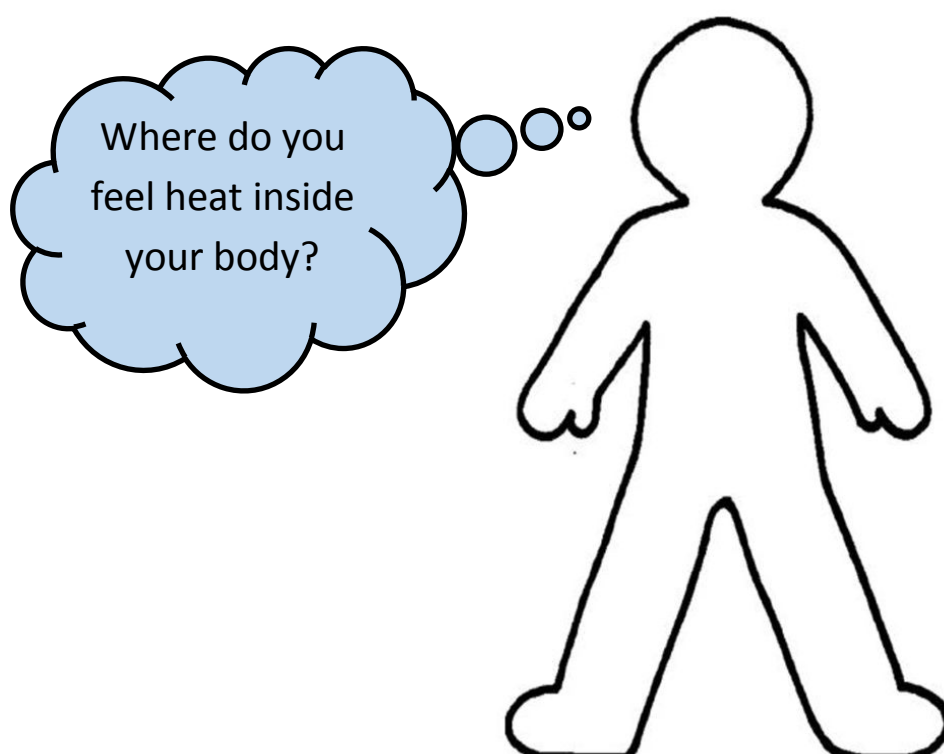
*Discuss strategies they can use to cool down.*

*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**.



# Interception activity

## 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

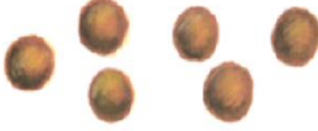













*Discuss and show student the Bristol Stool Chart (on the next page)*

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.

<p><b>TYPE 1</b></p>	<p>Severe constipation: looks like separate small hard lumps, can be hard to pass</p>		<p>Drink lots more water &amp; increase dietary fibre with fruit and vegetables &amp; go to see your GP if it keeps happening.</p>	
<p><b>TYPE 2</b></p>	<p>Constipation: looks like a lumpy sausage shape, can be hard to pass.</p>		<p>Drink more water &amp; increase dietary fibre with fruit and vegetables.</p>	
<p><b>TYPE 3</b> ✓</p>	<p>Healthy: looks like a sausage shape with cracks on the surface.</p>		<p>Healthy diet but drink a little more water. Well done.</p>	
<p><b>TYPE 4</b> ✓</p>	<p>Healthy: looks like a smooth sausage shape.</p>		<p>Healthy diet and good water intake. Well done.</p>	
<p><b>TYPE 5</b></p>	<p>Loose: looks like separate soft blobs, easy to pass.</p>		<p>Increase dietary fibre with fruit and vegetables.</p>	
<p><b>TYPE 6</b></p>	<p>Very loose/diarrhoea: looks like mushy soft fluffy, easy to pass.</p>		<p>Diarrhoea could be on its way. Keep your fluids up.</p>	
<p><b>TYPE 7</b></p>	<p>Diarrhoea/Leakage from severe constipation: looks liquid.</p>		<p>Drink water &amp; go to see your GP if it keeps happening.</p>	

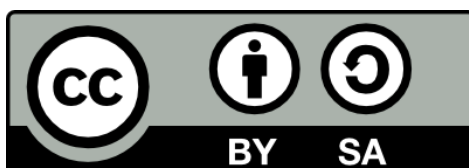
# Interoception & Communication



Government  
of South Australia

Department for Education

Pazios, A. (2020) *Interoception & Communication*, Department for Education, South Australia.



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## Foreword

This booklet has been developed as a supporting resource for *Ready to Learn Kit, Interoception:301* and *Interoception, Parent and Caregiver Booklet*, Department for Education, South Australia.

This booklet supports the implementation of interoception activities with children who are non-verbal, have limited functional communication or respond best with visual instructions.

This is a guide to how you can complete activities with your child throughout your day. It outlines ways in which you can incorporate children's individual communication needs and the interoception language into activities you are already doing.

By encouraging our children to communicate and to connect to themselves during everyday activities, we help our children to identify their body signals, recognise when their body signals change, communicate what they are feeling and act or respond in a socially acceptable way to these body signals.

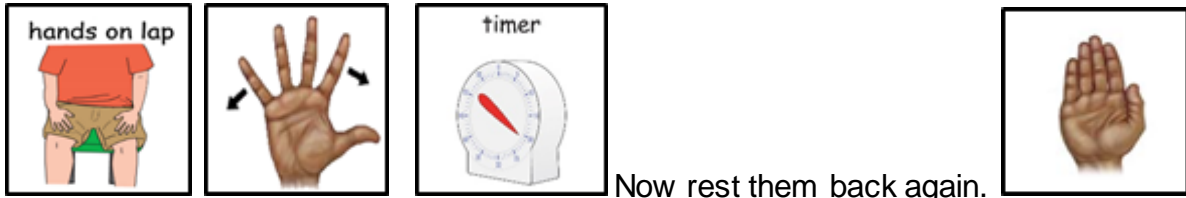
We hope you find this booklet useful to help your children deal with big emotions.



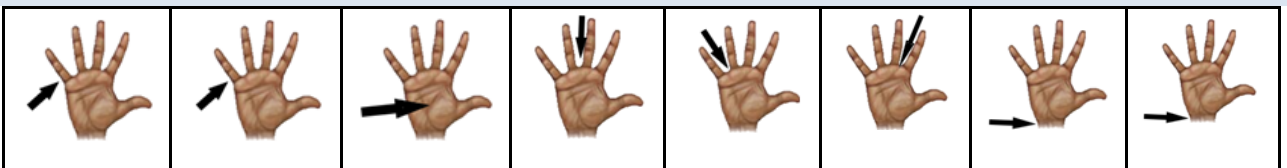
# Interoception activity

## Finger Stretch

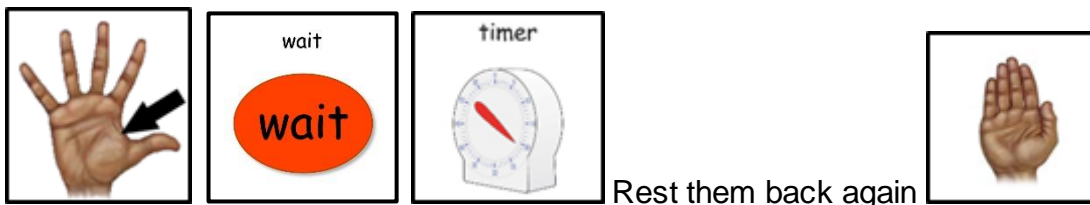
Sitting down, rest your hands in your lap, stretch your fingers as wide apart as you can and hold them for 30 seconds.



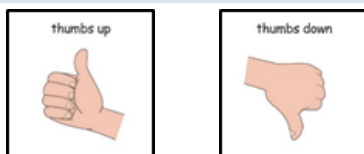
Where did you feel it when your hands were stretched?



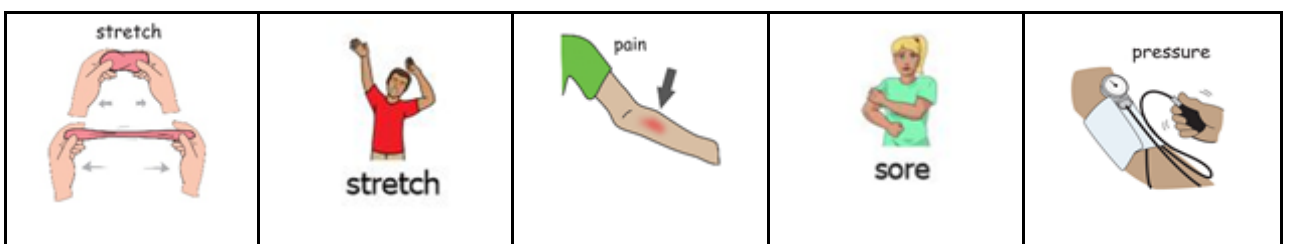
We are going to repeat the activity again, but this time we are going to focus on the webbing between our finger and thumb.



Did you feel it between your finger and thumb?



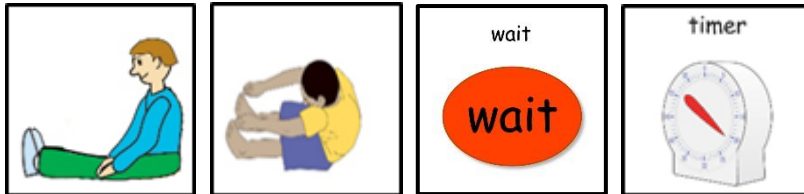
What did you feel?



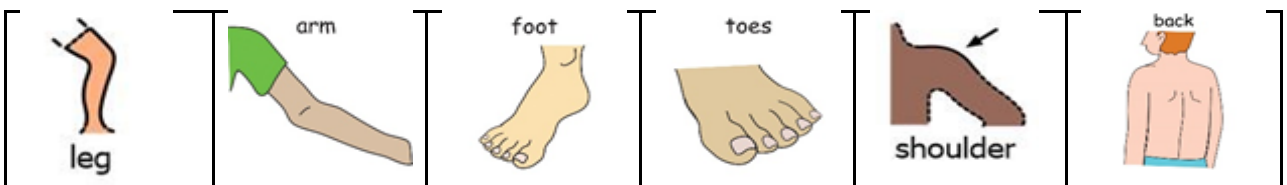
# Interoception activity

## Toe Touch

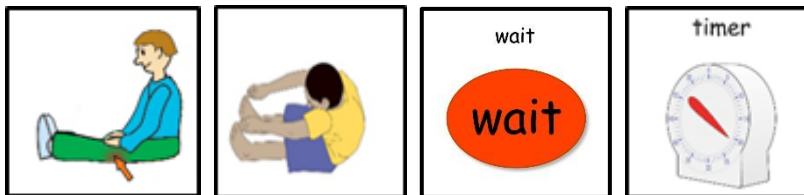
In a seated position on the floor, sit up straight and stretch your legs out. Reach your arms out straight and try to touch your toes. Hold this for 30 seconds.



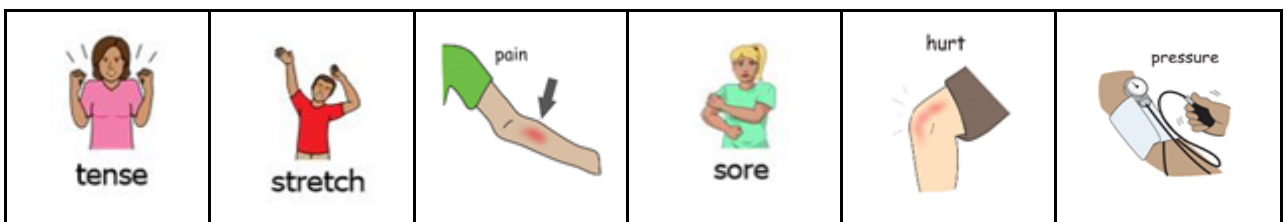
Where did you feel it?



We are going to repeat this activity again, but this time we are going to focus on the muscles at the back of our legs (our hamstrings)



What did you feel?

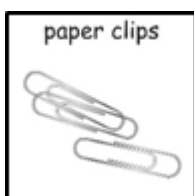


# Interoception activity

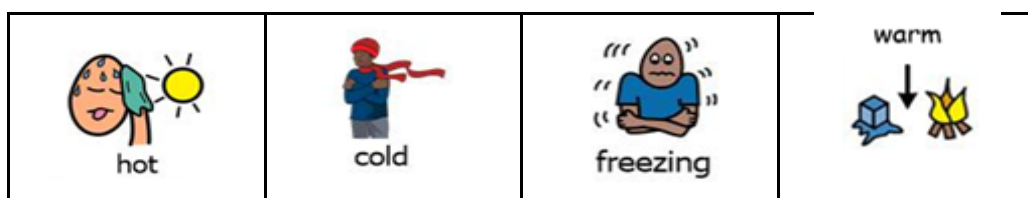
## Paperclip

*Place some paperclips in the freezer prior to this activity.*

Give your child a paperclip from the box.

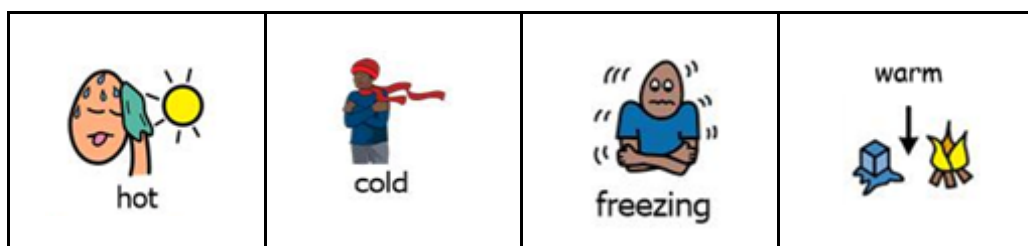


*What do you feel?*



We are going to repeat the activity again, but this time you are going to give your child a paperclip from the freezer.

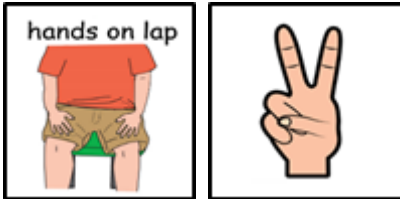
*What do you feel?*



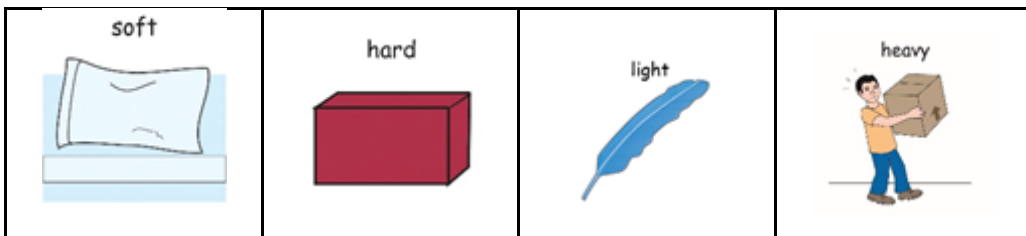
# Interoception activity

## Firm versus Light Touch

Sitting down, rest your hands on your lap. Rest 2 fingers on the top of your leg.

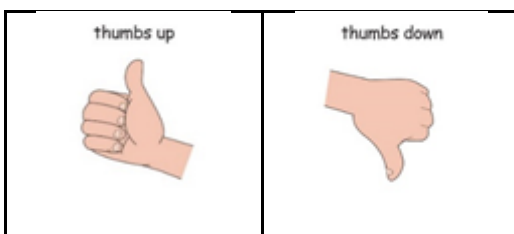


*What do you feel?*

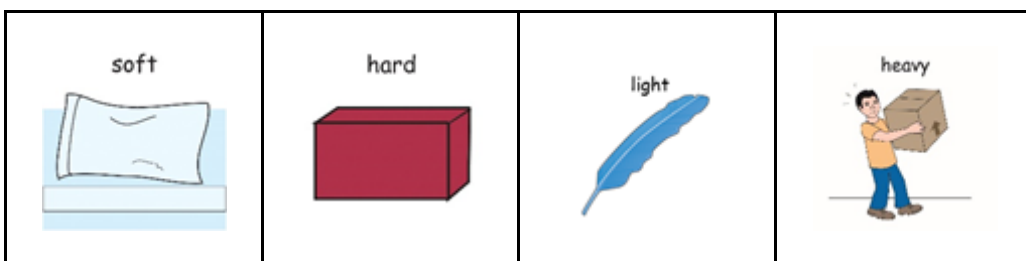


We are going to repeat the activity again, but this time we are going to push our 2 fingers into our leg.

*Are the feelings in your leg/fingers different?*



*What do you feel now?*



# Interoception

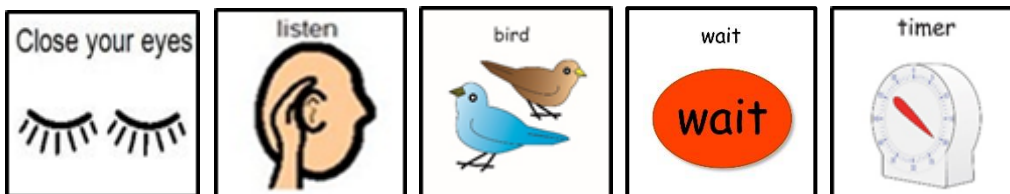
Incidental learning

# Interoception activity

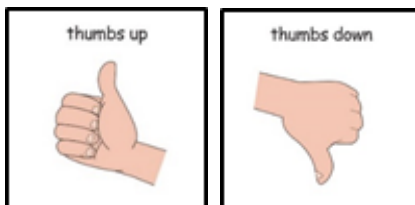
## Music/Sounds

Notice the sounds in the environment around you. Bring your child's attention to something you can hear, following the example below:

Close your eyes and listen to the sounds of the birds, listen for 30 seconds.



Can you hear the birds?



What can you feel inside your body?



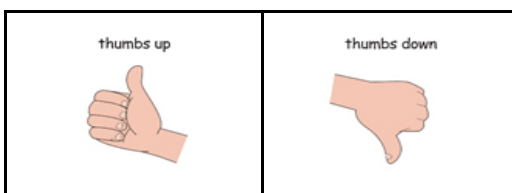
# Interoception activity

## Baking

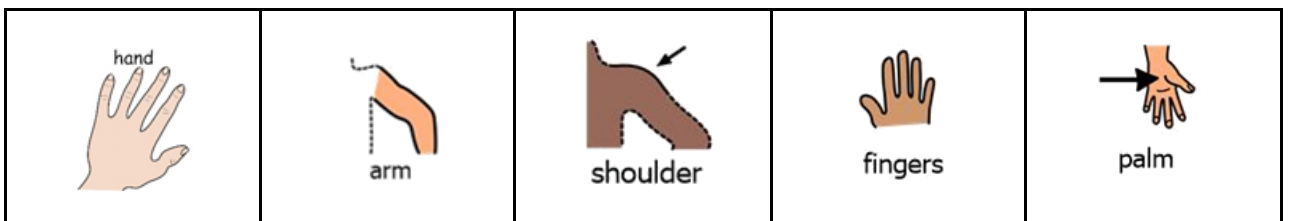
Bake a cake together. While your child is stirring the ingredients in the bowl, ask them to use their muscles and stir hard 5 times.



*Did you feel it?*

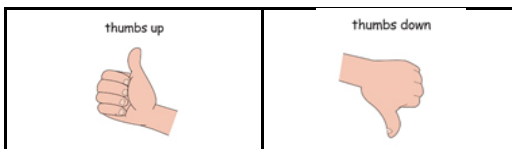


*Where did you feel it in your body?*

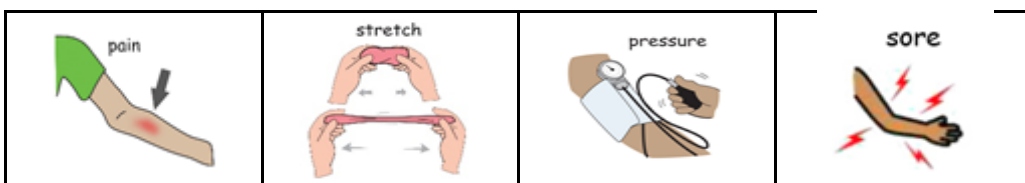


We are going to stir the ingredients again, but this time we are going to focus on what we notice about our arm muscles. Ask your child to use their muscles and stir hard 5 times.

*Did you notice it in your arm muscles?*



*What did you feel in your arm muscles?*



# Interoception activity

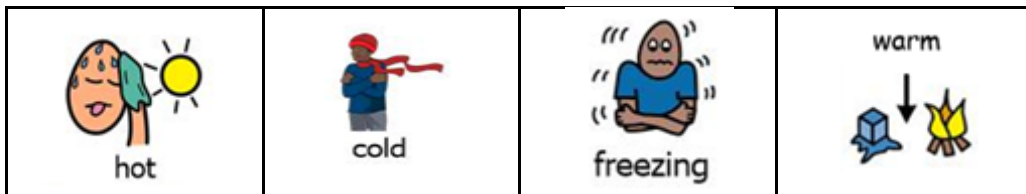
## Temperature

These activities can be done on days when the outside temperature is different from the inside temperature.



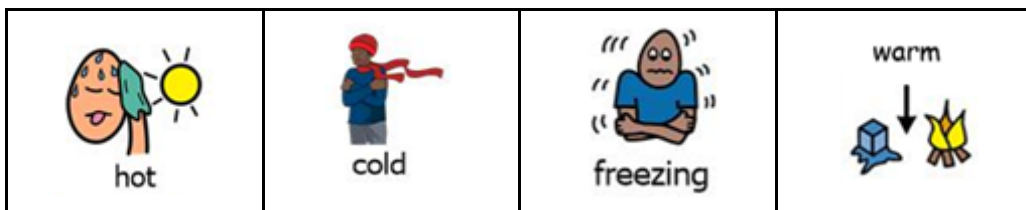
On a cold day, stand still inside your house. Put your hands on your arms.

How does it feel?



Now go outside into the air. Close your eyes, stand still and notice the air on your skin. Is it hot, cold, warm or cool? Now put your hands on your arms and feel your skin.

What do you feel?



What does this tell you about what you should wear?

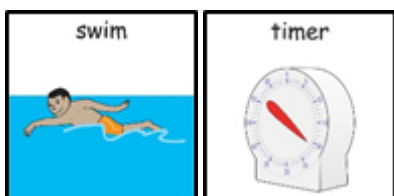


# Interoception activity

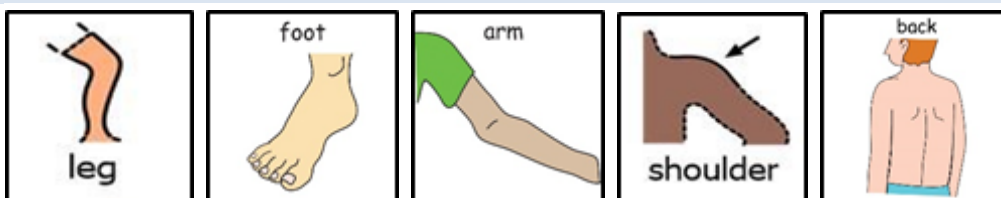
## Swimming

*This activity can be done when you are swimming*

Ask your child to practise their swimming for 30 seconds.



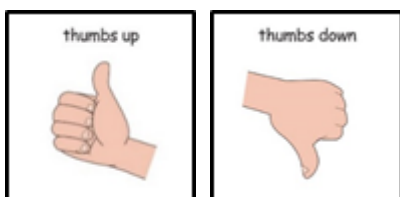
*Where can you feel it when you swim?*



We are going to repeat the activity again, but this time tell your child to focus on feeling it in their hands.



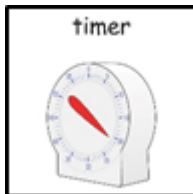
*Did you feel it in your hands?*



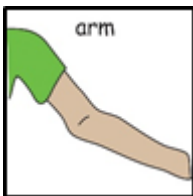
# Interoception activity

## Throwing a Frisbee

Ask your child to play Frisbee with you. Throw and catch the frisbee for 30 seconds.



Where did you feel it when you were catching the frisbee?



We are going to repeat the activity again, but this time tell your child to focus on what they feel in their hand.



Did you feel it in your hand?



What did you feel?



## References

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Frost L, Bondy A. (2002). *The Picture Exchange Communication System*. Second Edition. Pyramid Educational Consultants, Australia.

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Mahler, K. J. (2016). *Interoception: The Eighth Sensory System: Practical Solutions for Improving Self-Regulation, Self-Awareness and Social Understanding of Individuals With Autism Spectrum and Related Disorders*. AAPC Publishing.

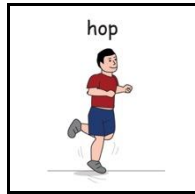
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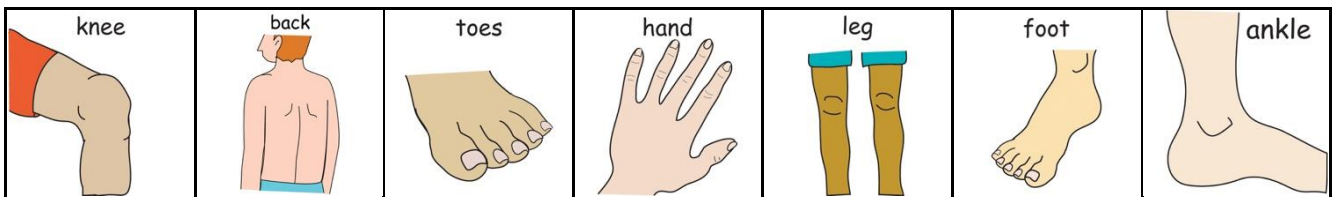


# Appendix A – Interoception Activity



Where can you feel it?

Now focus on feeling it...



What did you notice?



## Appendix B – Interoception Activity | Set up card










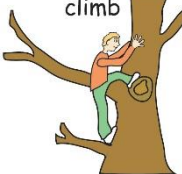



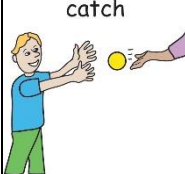









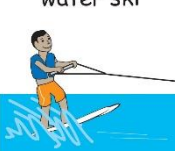










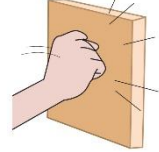
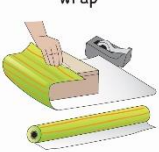









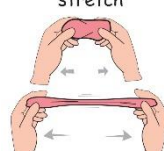


**Where can you feel it?**

--	--	--	--	--	--	--














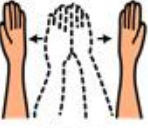
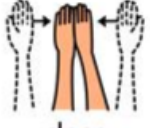



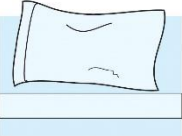


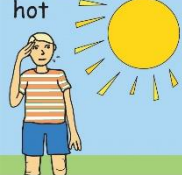























**What did you notice?**

--	--	--	--	--	--	--

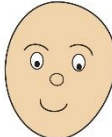



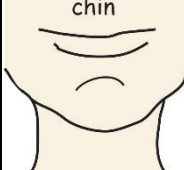
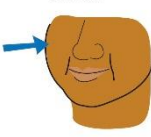
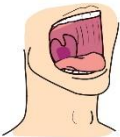
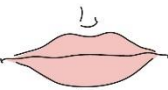



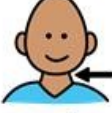
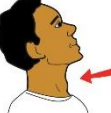
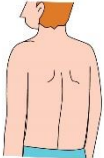

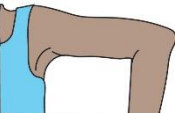
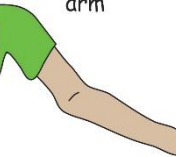
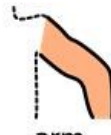





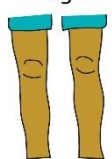











# Appendix C – Interoception Opportunities | Communication Pictures

run 	skip 	hop 	jump 	dance 	walk 	stomp feet 
ride 	climb 	bend 	mow the lawn 	swim 	swing 	catch 
kick 	sweep 	hike 	play frisbee 	water plants 	go upstairs 	go downstairs 
dig 	wipe table 	water ski 	water play 	write 	draw 	drink 
bite 	crawl 	pull 	push 	bounce on ball 	gargle 	knock 
wrap 	squeeze 	brush 	brush 	chop 	lift weights 	hit 
build 	clap hands 	wash hands 	stir 	stretch 	throw 	tie 

# Appendix D – Interoception | Communication Pictures

timer 	wait 	foot on floor 	still 	sit 	hands on lap 	lap 
twirl 	move 	relax muscles 	tense 	flap hands 	listen 	listen 
open 	close 	thumbs down 	thumbs up 	okay 	good 	loose 
heavy 	loud 	soft 	light 	Close your eyes 	wiggle 	wiggle fingers 
twist 	hot 	warm 	sunny 	feel 	hard 	
t-shirt 	shorts 	track pants 	jumper 	baseball cap 	woolly cap 	
excited 	anxious 	sad 	happy 	tired 	angry 	bored 
excited 	worried 	sad 	happy 	tired 	angry 	frustrated 

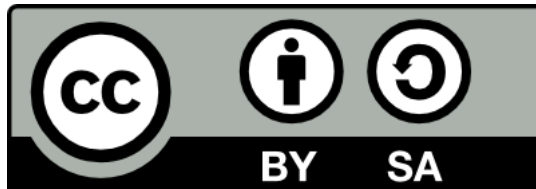
# Appendix E – Interoception Activities | Communication Pictures

head 	forehead 	eyes 	nose 	chin 	cheek 	throat 
mouth 	tongue 	ear 	teeth 	neck 	neck 	back 
elbow 	elbow 	arm 	arm 	muscle 	shoulder 	shoulder 
tummy 	stomach 	leg 	leg 	knee 	ankle 	ankle 
toes 	foot 	finger 	fingers 	hand 	palm 	thumb 

It hurts 	sore 	tense 	sweaty 	freezing 	stretch 	hot 
I am stiff 	sore 	hurt 	pressure 	pain 	Stretch 	cold 

# Interception 301

Lean, C., Goodall, E., Leslie, M., Milanese, L., May, H., and Heays, D. (2019) Interception Activity Guide 301, Department for Education, South Australia.



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## Contents

1. Foreword .....	5
2. Introduction to interoception .....	5
2.1 Interoception is our eighth sense .....	5
2.2 What is interoception? .....	5
2.3 Benefits of teaching interoception .....	5
2.4 Models of interoception for Department for Education sites .....	6
2.5 Models of interoception for in class teaching .....	6
2.6 What is an interoception activity? .....	6
2.7 Structure of an interoception activity? .....	7
2.8 Interoception research .....	7
3. 301 Advice 301 Advice .....	8
3.1 Muscles activities   Follow the leader .....	9
3.2 Muscles activities   Spinal Twist .....	10
3.3 Muscles activities   Perfect Posture .....	11
3.4 Muscles activities   Overhead Reach .....	12
3.5 Muscles activities   Knee Pump .....	13
3.6 Muscles activities   Wrist Stretch wings .....	14
3.7 Muscles activities   Seated Bicycle Crunch .....	16
3.8 Muscles activities   Leg Liftsknuckle cracker .....	17
3.9 Muscles activities   The plank .....	18
3.10 Muscles activities   The star .....	19
3.11 Muscles activities   The floss .....	20



3.12	Muscles activities   Giraffe stretch .....	21
3.13	Muscles activities   Rocking bug .....	22
3.14	Muscles activities   Meerkat look-out .....	23
3.15	Muscles activities   Row, row, row your boat.....	24
3.16	Breathing activities   Progressive muscle focus .....	25
3.17	Breathing activities   Emperor Penguin breathing boat .....	26
3.18	Breathing activities   Rainbow breathing boat .....	27
3.19	Breathing activities   Balloon breathing boat .....	28
3.20	Breathing activities   Back to back breathing boat.....	29
3.21	Breathing activities   10 steps breathing boat.....	30
3.22	Pulse activities   Mountain climbers .....	31
3.23	Pulse activities   Frog Squat Jump.....	32
	Heart rate interoception activities.....	33
	Heart rate interoception activities.....	34
	Autonomic Nervous System activities.....	35
	Autonomic Nervous System activities.....	36
	Autonomic Nervous System activities.....	37
	Connecting Curriculum .....	38
	Interoception Unit Plan .....	39
	Interoception Unit Plan .....	40
	Interoception Unit Plan .....	41
	Interoception Resoures .....	43
	<b>Week 1: Comprehension Task:</b> .....	44



<b>Interoception, the Mind and the Body</b> .....	44
Interoception and Self-Regulation .....	44
<b>Week 2/3: Summative Task – Emotions Poster</b> .....	46
<b>Week 2/3: Summative Task Rubric</b> .....	47
<b>Week 4: Ted ED Video</b> .....	48
<b>Week 5: Sugar and your Emotions</b> .....	49
<b>Week 5: Summative Task Rubric</b> .....	50
References .....	52

## REVISION RECORD

Version	Approved by	Approved date	Review date	Amendments
V1.0	Dr Emma Goodall	October 2019	October 2022	Guideline developed



## 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	<b>8. Interoception</b>

### 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. 301 Advice

**Be relatable – share your experiences with body signals and emotions.**

*Share examples –*

- “when I feel anxious I feel my heart beating faster, I sometimes sweat and I get a dry mouth”
- “when I feel angry I feel my fists clenching so then I focus on where I can feel it and I stop focussing on what is making me angry”

*Promote discussion –*

- What did you have for breakfast?
- What did you do at recess?
- What did you do on the weekend?

*Noticing for the student –*

- I can see that you are getting “hangry” because you haven’t eaten and you are using a tone of voice that sounds grumpy
- I can see that you are getting frustrated because you have started tapping you knee

*Suggest strategies –*

- Would you like to go for a walk to reset your calm?
- Would you like to use an interoception activity to interrupt your train of thought?
- Would you like to listen to some music to reset your calm?

**Replace existing ‘withdrawal rooms’ to create an Interoception space:**

- Explain the purpose of the space to both teachers and students – “this is an opportunity for you to reset to calm”
- Skilled staff to discuss with students after they have been given the opportunity to reset their calm – allow the student sufficient amount of time – however long it takes – understand there is nothing to be learned until the child / student is calm
- Structured process –
  - When the student has reset their calm – explicitly teach an area of the Regulation Scales **OR**
  - Complete an Understanding Behaviour Template **OR**
  - Take the time to have discussions with the students – share services available on the neurodiversity page **OR**
  - Complete a Health Support Plan suited to the individual – with the individual – “Nothing about me without me” – e.g. Interoception Support Plan, Emotional Wellbeing Plan, Wellness, Stress & Distress Questionnaire



# Interoception activity

## Follow the leader

Find a partner to work with.

Hold both of your left pointer fingers up and press your pointer finger against your partner's finger. Choose one of you to be the leader.

The leader will move the pointer finger around, the other partner needs to follow the leader's finger and try to stay connected.

*Which body part did you feel when we were completing that activity?*

*Now switch roles, the other person will now be the leader.*

We are going to repeat the activity again, but this time the new leader will control the direction of the fingers.

*Now join both of your pointer fingers together, each person will lead a finger each.*

*This time we are going to focus on the pressure between our fingers as we try to stay connected.*

*What did you notice about the pressure between your fingers?*



# Interoception activity

## Spinal Twist

In a seated position, ensure your feet are placed on the ground and you sit up straight.

Place both of your hands to the right side of your chair.

Gently rotate your torso to the right.

Only twist as far as you feel comfortable and keep your back straight while your hips square.

Hold the stretch for 30 seconds.

*Where did you feel it in your body when we held that stretch?*

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 holding that stretch?*



# Interoception activity

## Perfect Posture

In a seated position, ensure your feet are placed on the ground and you sit up straight.

Pull your shoulders backwards and hold that stretch 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 shoulder blades.

*How did your shoulder blades feel while completing that stretch?*



# Interoception activity

## Overhead Reach

Extend each arm overhead.

Reach to the opposite side.

Hold for 10 to 30 seconds.

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

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

*How did your shoulder muscles feel while completing that stretch?*



# Interoception activity

## The Toe Toucher

In a seated position, ensure your feet are placed on the ground and you sit up straight.

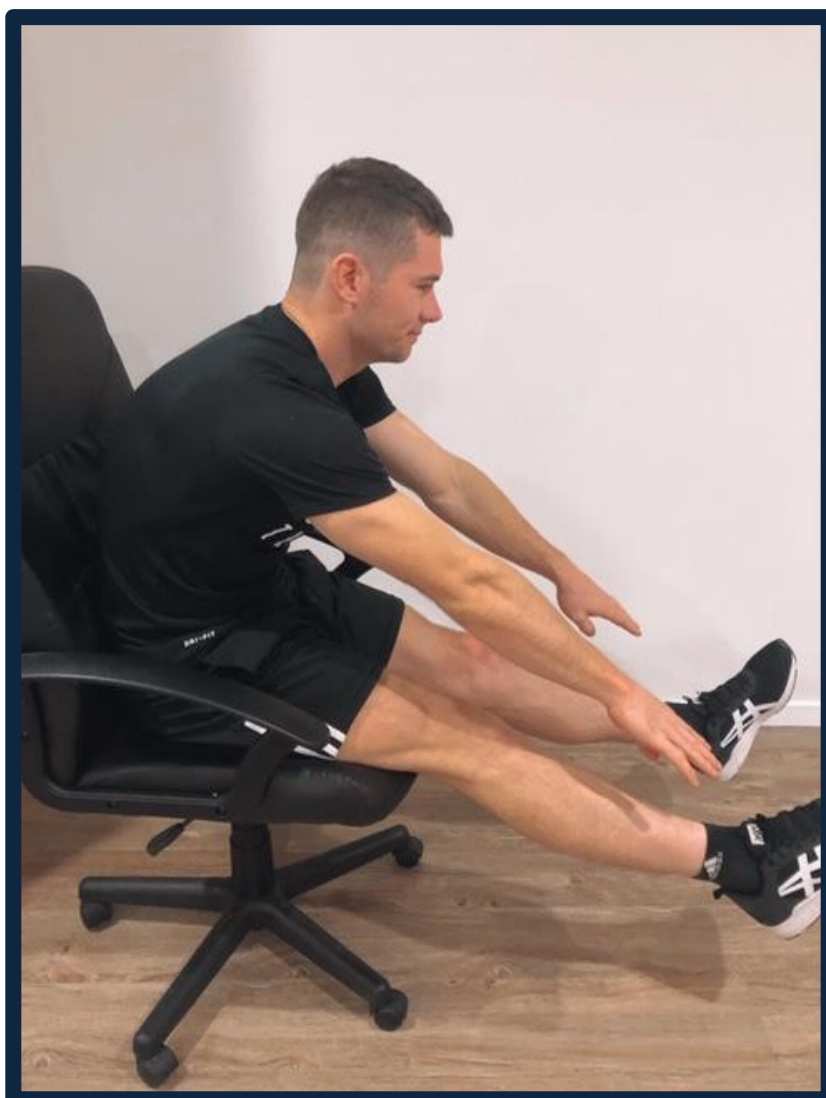
Stretch your legs out straight.

Reach your arms out straight and extend your arms to your toes.

*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 hamstrings.

*How did your hamstrings feel while completing that stretch?*



# Interoception activity

## Knee Pump

In a seated position, place your feet on the ground and sit up straight.

Cross your leg with your ankle placed on your knee.

Gently push down on your knee, as your pushing down on your knee remember to exhale slowly.

*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?*



# Interoception activity

## Wrist stretch

Press your palms together in front of your chest and hold for 15 seconds.

*Where did you feel it in your body when we were holding this stretch?*

We are going to repeat the activity again, but this time we are going to push the backs of your hands together for a reverse stretch and hold for another 15 seconds

*How did your wrists feel while holding that stretch?*



# Interoception activity

## Seated Bicycle Crunch

Sit in your chair with your feet flat on the floor.

Position your hands behind your head and lift one knee towards the opposite elbow, twisting your body down towards it, then return to the seated straight-back position. Then continue to switch 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 core muscles.

*How did your core muscles feel while holding that stretch?*



# Interoception activity

## Leg Lifts

Start by sitting up straight in a chair.

Place your hands either side of your chair to help balance your body.

Slowly lift one of your legs off the ground and hold it in mid-air.

Repeat with the other leg.

For more of a challenge, we are going to see if we can lift both legs off the ground at the same time and hold both legs up.

*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?*



# Interoception activity

## Arm Circles

Stand tall and pull your shoulders back.

Put your arms out straight, hold them up at shoulder height.

Start to make mini circles in the air with your arms.

*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 bicep muscles

*How did your bicep muscles feel while completing the activity?*



# Interoception activity

## Hand Press

Start by placing your hands on a table, resting upwards on your pinkie fingers.

Press down on the side of your hands.

*Where did you feel it in your body?*

Now with your hands still resting on the table, spread open your fingers wide.

Now try to press down on the side of your hands with your fingers still spread out open wide.

*Where did you feel it now in your hands when you had your fingers spread out wide?*

*Was there a difference compared to having your fingers closed when we pushed down?*



# Interoception activity

## Interhemispheric Switching

Start by sitting tall in your chair.

Extend your right arm all the way up to the ceiling.

Straighten your left leg out and raise it up as you bring your right arm down and try and not touch your left foot.

Do 8-10 on each 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 arm muscles.

*How did your arm muscles feel while doing the activity?*



## Interoception activity

### Side Leg Swing

Find your own space in the room, stand up tall and put your hands on your hips.

Swing your leg out wide to the side – out and in.

Switch legs and continue to repeat swinging each leg in and out.

*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 hip muscles.

*Where did you notice it this time when we focused on our hip muscles?*



# Interoception activity

## Tricep Dips

For this activity you will need a stationary chair.

Scout to the front of the chair and place your hands facing forward to the edge of the chair. Bend your elbows straight back and lower your body straight down.

Keep your back at close to the chair as possible.

Then straighten your arms to rise back to the starting position.

*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 tricep muscles.

*What could you notice about your tricep muscles?*



# Interoception activity

## Chair Squats

For this activity you will need a stationary chair.

Stand up tall and have your feet hip width apart.

Bend your knees and squat down just above the seat, without sitting down entirely.

Push your body upwards and straighten your legs to stand up straight.

*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 thigh muscles

*How did your thigh muscles feel while moving?*



# Interoception activity

## Lunges

Start by standing up tall.

With one leg in front of the other, gently lower the knee of your back leg down towards the ground.

Repeat 10 times on each leg.

*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 hamstring muscles.

*What did you notice in your body after focusing on your hamstring muscles?*



## Interoception activity

### Hamstring Stretch

Start by finding a spare space of wall and ensure that your heels are against the wall.

Push your back against the wall.

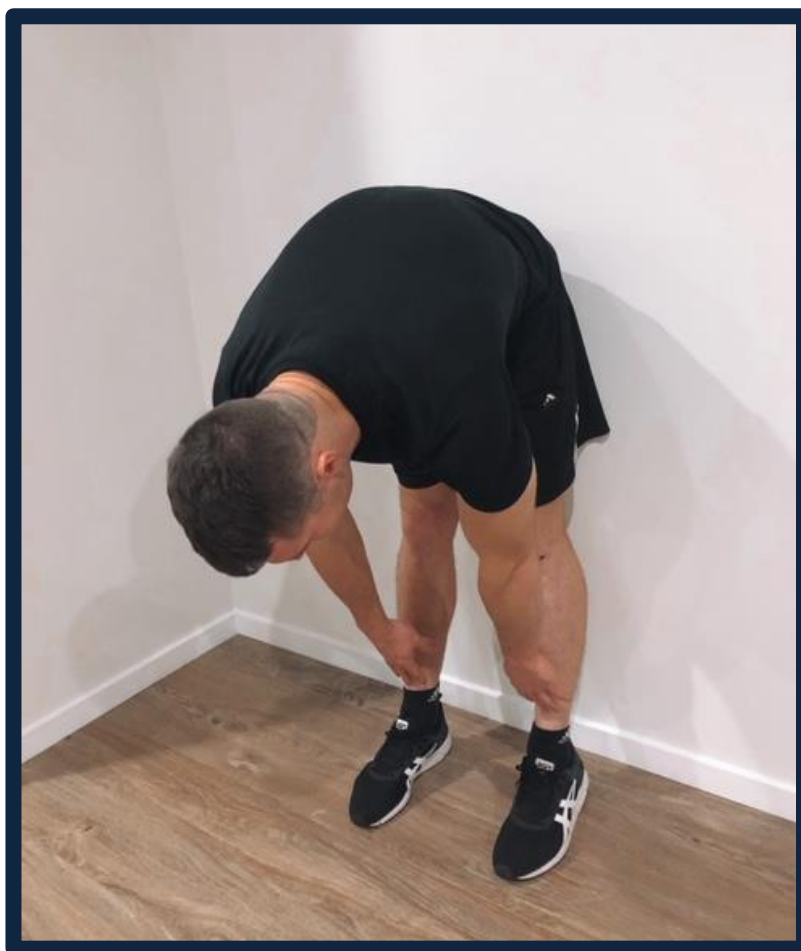
Keep your legs straight and bend from the hips with straight arms.

Try to touch your toes without bending your knees.

*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 hamstring muscles

*What change did you notice in your body after focusing on your hamstring muscles?*



# Interoception activity

## Nostril breathing

Sit in a comfortable position.

Place your left hand on your left knee.

Lift your right hand up towards your nose.

Exhale completely and then use your right thumb to close your right nostril.

Inhale through your left nostril and then close the left nostril with your fingers.

Open the right nostril and exhale through this side.

Inhale through the right nostril and then close this nostril.

Open the left nostril and exhale through the left 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 deep inhales and exhales through our nose.

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



# Interoception activity

## Infinity breathing

Start by sitting in a chair.

With your index finger, start to trace an infinity symbol on your table.

Start in the middle, go up to the left and trace the left part of the infinity symbol while breathing in through your nose.

When you get back to the middle of the 8 again, breathe out through your mouth while you trace the right part of your infinity symbol.

*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?*

**BREATHE IN**



**BREATHE OUT**

# Interoception activity

## 8-4-7 breathing

Find a comfortable position.

Exhale deeply through the mouth for 8 seconds.

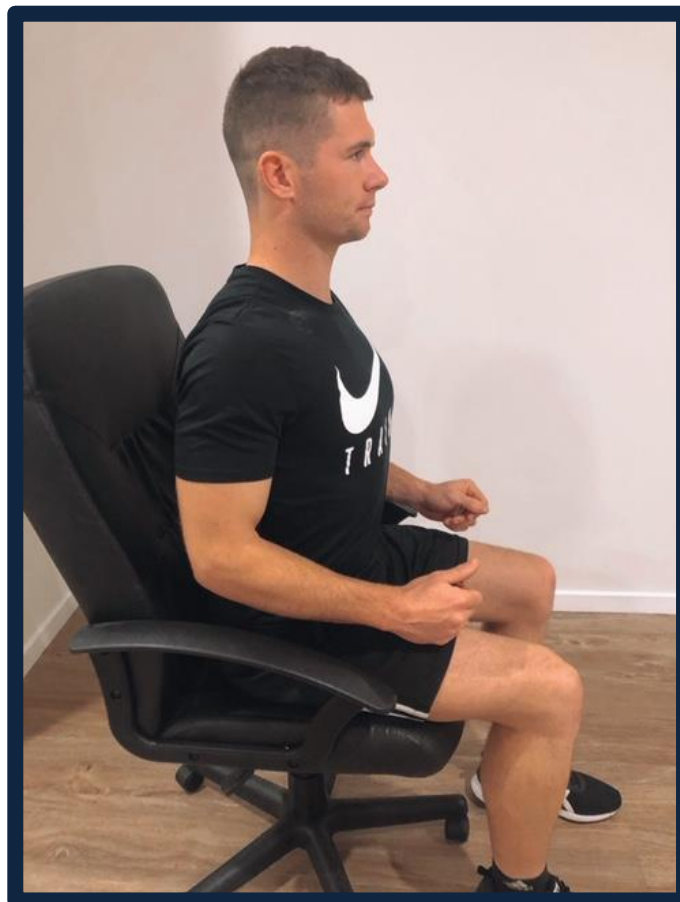
Inhale through the nose for 4 seconds.

Hold breath in for 7 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 deep breaths in through our nose and out through our mouths.

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



# Interoception activity

## Single Leg Lift

Find a space in the room and stand tall.

Stare at a focal point on the floor in front of you and slowly lower your torso to the ground while lifting your left leg behind you.

Keep your spine straight and reach hands to the floor.

Repeat with the other leg.

*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 hamstring muscles.

*What change did you notice in your body after focusing on your hamstring muscles?*



# Interoception activity

## One Legged Squat

Stand on one leg with the other leg held straight out in front of you.

Slowly lower into a squat position keeping the airborne leg straight.

Once you've reached the squat position, pause for a second and then push back up by driving through your heel.

You may need to hold your arms out straight in front of you to help you balance.

*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 hamstring muscles.

*What change did you notice in your body after focusing on your hamstring muscles?*



# Interoception activity

## Feet Squish

Sit comfortably in a chair with your feet placed on the ground.

With your feet on the ground, raise your toes upwards.

Try and spread your toes apart.

Lower your toes to the ground – see if you can try to keep your toes open!

*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 the webs of your toes

*What change did you notice in your body after focusing on the webs of your toes?*



# Interoception Resources

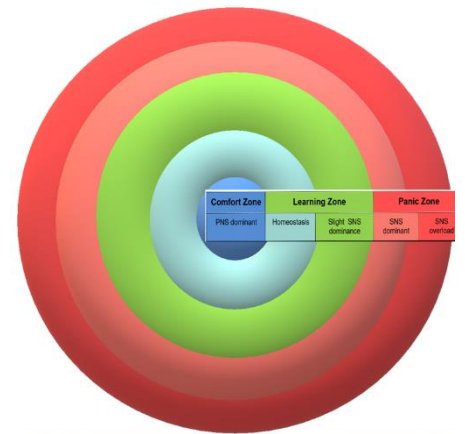


## Heart rate interoception activities

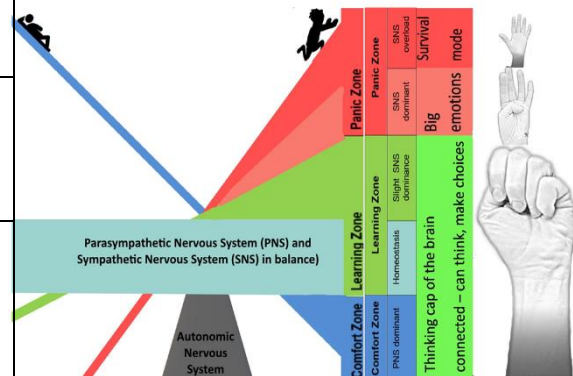
These activities can either be completed using a smart watch, pulse oximeter or by manually taking your pulse. For manual readings you will require a watch or timer or a phone to use as a timer. Some phones can also record your pulse.



Time of day	Activity immediately prior to taking pulse	Pulse rate (beats per minute)	Estimated zone of regulation



My heart rate/pulse



# Interoception Resources



## Heart rate interoception activities

What can you do to increase your heart rate by more than five beats per minute?

What can you do to decrease your heart rate by more than five beats per minute?

When you notice your heart beating, can you accurately tell how fast/hard it is beating?

If not, are you assuming your heart rate is faster or slower than it really is?

What can you do to remind yourself to check the accuracy of your heart rate assumptions?

When you think you are heading towards sympathetic nervous system overload, how does your pulse feel on your wrist?

If you do one – two minutes of interoception activities, can you not only lower your heart rate but change the feeling of your pulse in your wrist? YES/NO/MAYBE/SOMETIMES

What interoception activities did you do?

How did it change?

Is this different if you do a different interoception activity?



# Interoception Resources

## Autonomic Nervous System activities

When you are in your parasympathetic nervous system dominant zone, where are you usually (location), and who with, and doing what?

What can you control in your life when you are in your parasympathetic nervous system dominant zone?

Three cyan sticky notes with folded corners, arranged horizontally, intended for students to write their responses to the question above.

When you are in a sympathetic nervous system dominant zone, what can you control in your life?

Three green sticky notes with folded corners, arranged horizontally, intended for students to write their responses to the question above.

What about when you are heading into sympathetic nervous system overload, what can you control then?

Three red sticky notes with folded corners, arranged horizontally, intended for students to write their responses to the question above.

# Autonomic Nervous System activities



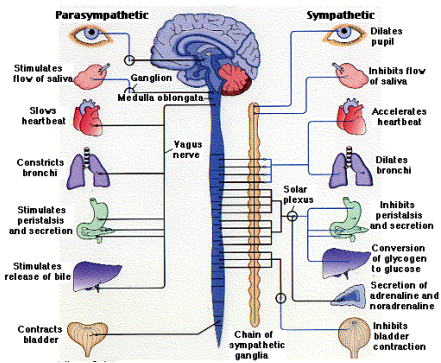
## Respiration rate (rate of breathing)



Your respiration rate is the number of breaths you take per minute. rate is usually measured when sitting down or lying at rest by counting how many times the chest rises, as it rises with each intake of breath, and falls with each exhalation. Respiration rates may increase fever, illness, and other medical conditions. Normal respiratory rates for children in breaths per minute are as follows:

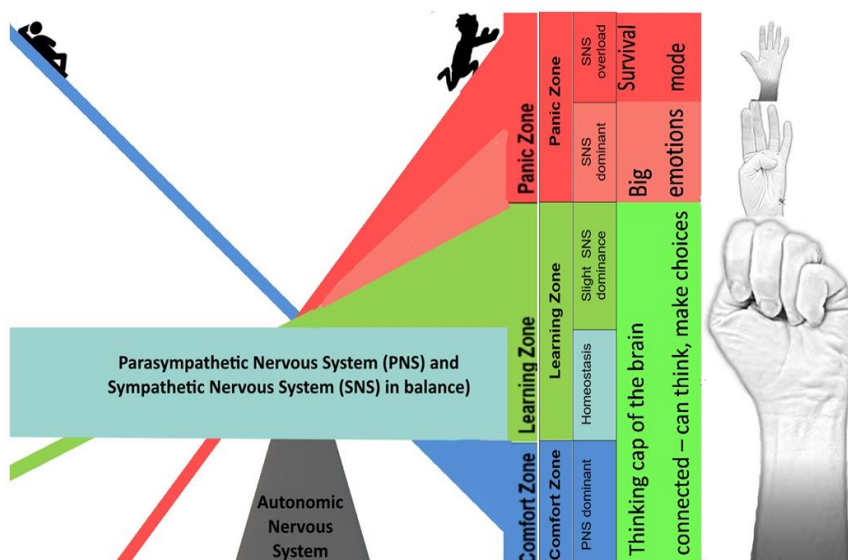
- ✓ birth to 1 year: 30 to 60
- ✓ 1 to 3 years: 24 to 40
- ✓ 3 to 6 years: 22 to 34
- ✓ 6 to 12 years: 18 to 30
- ✓ 12 to 18 years: 12 to 16

You can measure your own respiration rate by lying or sitting with your hand just below your collar bone. Set the timer for one minute and then count each time you feel your chest rise. To measure someone else's respiration rate, sit next to, or in front of them and simply observe the rise and fall of their chest and count for the duration of one minute.



The  
of  
with

Time of day	Activity immediately prior to measuring respiration	Respiration (breaths per minute)	Estimated zone of regulation



My respiration rate

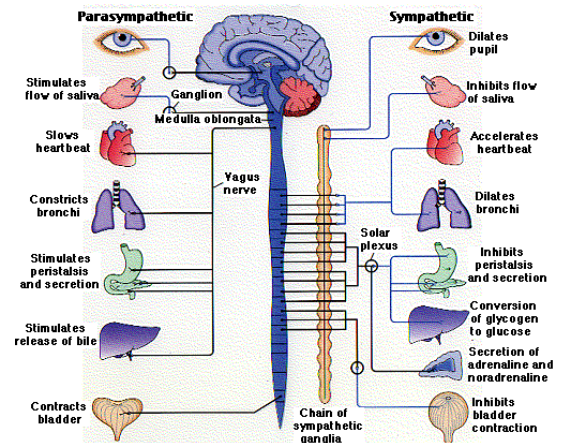
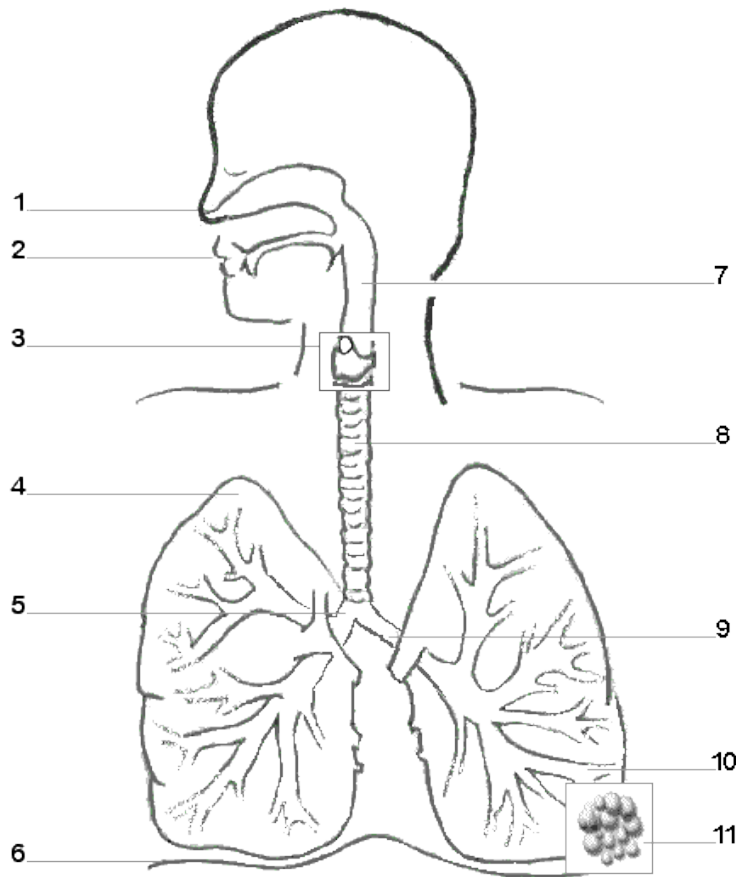
# Autonomic Nervous System activities



Respiration rate (rate of breathing)



Label the below:



How does asthma impact respiration?

How can you slow down respiration?

How can speed up respiration?

Why would you want to speed up or slow down respiration?



# Interoception Resources

## Connecting Curriculum

### Physical Education/Health

- Teach heart rate by researching optimal heart rate for learning
- Year 8 Nutrition course – focus on types of food being eaten, sugar content, reading labels correctly, healthy diets (what a diet looks like), deeper understanding of sugar in fruit – link with impact on emotions, wellbeing, energy levels, ability to focus and concentrate
- Personal best tracking record
- Explicitly teach body language – e.g Power Pose
- Circadian rhythms – sleep patterns – explicitly teaching how sleep affects wellbeing, emotions

### Maths/Science

- Nervous system – explicitly teaching the sympathetic and parasympathetic nervous system
- Personal best tracking record – creating a maths data graph
- Before oral presentations: Explicitly teach body language – e.g Power Pose

### Home Economics

- Incorporate into Food and You Unit –
  - How sugar affects emotions
  - Dehydration chart
  - Food diaries – add a column for how do I feel?
  - Use “My Fitness Pal” app to track calories / water intake / exercise / weight
- Explicit discussions around hunger – what does it feel like to be hungry? How do you know you’re not dehydrated? Comfort eating – link it to anxiety and other emotions

### English/Literacy

- English – be explicit about why they need to be able to regulate their emotions –link to adjectives – describe myself and more explicitly describe how I feel
- Weave into learning intentions – today there might be an opportunity to speak aloud
- Knowledge, skills and understanding –interoception goal today is..... use this as an opportunity to explicitly teach a strategy to manage emotions e.g. Power Pose

### Visual Arts/Dance

- Flexibility program – incorporate personal best tracking record
- PD about public speaking – PVLEGS – Poise, Voice, Life, Eye contact, Gestures, Speed
- Performance – starting pose, ending pose – all sits in Poise
- Learning intentions – start of every lesson – not just dance – explicitly sharing the wh



# Interoception Unit Plan

## Interoception Unit Plan

<b>Title of Unit / Big Idea</b>	<b>Interoception + Sugar = How it affects your emotions</b>	<b>Year</b>	8-9
<b>Curriculum Area</b>	Food and Technology	<b>Time Frame</b>	6 week unit
<b>Developed By</b>	Louisa Milanese and Hannah May (Paralowie R-12 School)		

### Identify Desired Results

#### Content Descriptions:

Investigate and select strategies to promote health, safety and wellbeing (ACPPS073)	<p>Students will...</p> <ul style="list-style-type: none"> <li>- Research a variety of snacks and drinks that teenagers commonly consume in order to understand their nutritional value</li> <li>- Analyse food and nutrition labels</li> <li>- Investigate how sugar affects your wellbeing (interoception)</li> </ul>
Analyse factors that influence emotions, and develop strategies to demonstrate empathy and sensitivity (ACPPS075)	<p>Students will....</p> <ul style="list-style-type: none"> <li>- Gain understanding of the concept of interoception and the bodies physical response in connection to their emotions</li> <li>- Understand self - regulation and ways to respond</li> <li>- Investigate personal / social choices in foods and how it can affect individuals emotional response</li> </ul>
Investigate the ways in which products, services and environments evolve locally, regionally and globally and how competing factors including social, ethical and sustainability considerations are prioritised in the development of technologies and designed solutions for preferred futures (ACTDEK029)	<p>Students will...</p> <ul style="list-style-type: none"> <li>- Investigate the ways in which products evolve through advertising techniques (Hidden sugars).</li> <li>- Understand the social factors influencing our sugar intake.</li> </ul>



# Interoception Unit Plan

## Achievement Standards

Students will ...

- Evaluate the impact on wellbeing, their own and others in connection to sugar intake
- Analyse factors (sugar) that influence emotional responses
- Investigate strategies (Self -Regulation) to enhance safety and wellbeing in connection to interoception

### General Capabilities

Personal and Social – This will be achieved through students gaining a deeper understanding of their emotions and strategies to self-regulate.

Literacy – This will be achieved through students learning subject specific language (Tiered Language) including using strategies such as close reading tasks.

Numeracy – This will be achieved through students understanding of how to read nutrition labels and refined sugar content in foods in regards to nutritional value.

### Cross-curriculum Priorities

#### Sustainability (Technologies)

The Australian Curriculum: Technologies enables consideration of preferred futures. When students identify and critique a problem, need or opportunity; generate ideas and concepts; and create solutions, they give prime consideration to sustainability by anticipating and balancing economic, environmental and **social impacts**.

This will be achieved through students gaining a deeper knowledge on the effects of sugar on their wellbeing and how society and identity can contribute to sugar intake. Students will have the opportunity to promote healthier eating and the **social impacts** on sugar to their peers and the wider community.



## Interoception Unit Plan

Weekly overview	
<p><b>Week 1</b></p> <p><b>Introduction to Interoception</b></p>	<p><b>Resource:</b> Formative Task: Interoception close Reading Formative Task: Emotions VS physical Response Task</p> <p><b>Learning and understanding:</b> Interoception: Emotions and physical response</p> <p><b>Tasks:</b> Feelings Check in (Beginning of every lesson) Anxiety - Mindfulness activity (See Resources) End of every lesson.</p>
<p><b>Week 2</b></p>	<p><b>Resource:</b> Summative task: Emotions Poster</p> <p><b>Learning and understanding:</b> Self-Regulation strategies in connection to chosen emotion</p> <p><b>Tasks:</b> Feelings check in (Beginning of every lesson) Angry - Mindfulness activity (See Resources) End of every lesson.</p>
<p><b>Week 3</b></p>	<p><b>Resource:</b> Continue Emotions poster task</p>

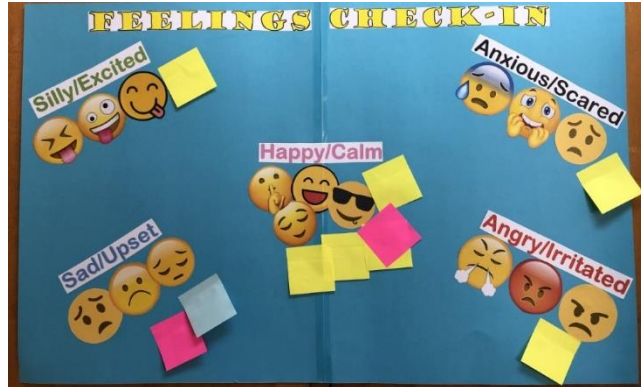


	<p><b>Tasks:</b> Feelings check in (Beginning of every lesson) Sad – Mindfulness activity (See Resources) End of every lesson.</p>
<p><b>Week 4</b></p> <p><b>Introduction to sugar and how it affects the brain</b></p>	<p><b>Resource:</b> Formative task: Ted Ed Video Comprehension</p> <p><b>Learning and understanding:</b> The connection sugar has on emotions</p> <p><b>Tasks:</b> Watch That Sugar Film Feelings check in (Beginning of every lesson) Hyperactive – Mindfulness activity (see Resources) End of every lesson</p>
<p><b>Week 5</b></p>	<p><b>Resource:</b> Formative task: Food and My emotions Diary Summative task: Advertisement</p> <p><b>Tasks:</b> Survey monkey on emotions and sugar Feelings check in (Beginning of every lesson) Nervous – Mindfulness activity (see Resources) End of every lesson</p>
<p><b>Week 6</b></p>	<p><b>Advertisement + poster DUE</b></p> <p><b>Tasks:</b> Summarize food and my emotions diary: Whole class interactive task. Teacher to create a table on the board with various emotion headings. Students to describe what foods they ate when feeling that particular emotion.</p>

# Interoception Resources

## Feelings check in: Beginning of every lesson

This happens at the beginning of every lesson. Students use post it notes to express what emotion they are currently feeling. You could then have a discussion about what are the body signals that students are noticing with each emotion.



## Mindfulness activities: End of every lesson

### **Anxiety:** The rule of 3

- Name three things you see
- Name three sounds you hear
- Move three parts of your bod

This activity can help centre your mind and bring you back to the present moment.

<https://www.webmd.com/mental-health/features/ways-to-reduce-anxiety>

### **Angry:** Mentally Escape

- Teacher to find a landscape image and display on the board
- Students to visualize themselves in that image.
- Who would you be with?
- What would you be doing?
- What would you be wearing?
- What would the weather be like?

### **Sad:** communication

Understanding the importance of talking about your feelings when you are sad and how the problem can be fixed. Teacher to introduce websites and where to go for help.

### **Hyperactive:** Bring it down

[https://www.youtube.com/watch?v=bRkILioT\\_NA](https://www.youtube.com/watch?v=bRkILioT_NA)

### **Nervous:** Breathe

Reach out Breathe App

<https://au.reachout.com/tools-and-apps/reachout-breathe>



# Interoception Unit Plan

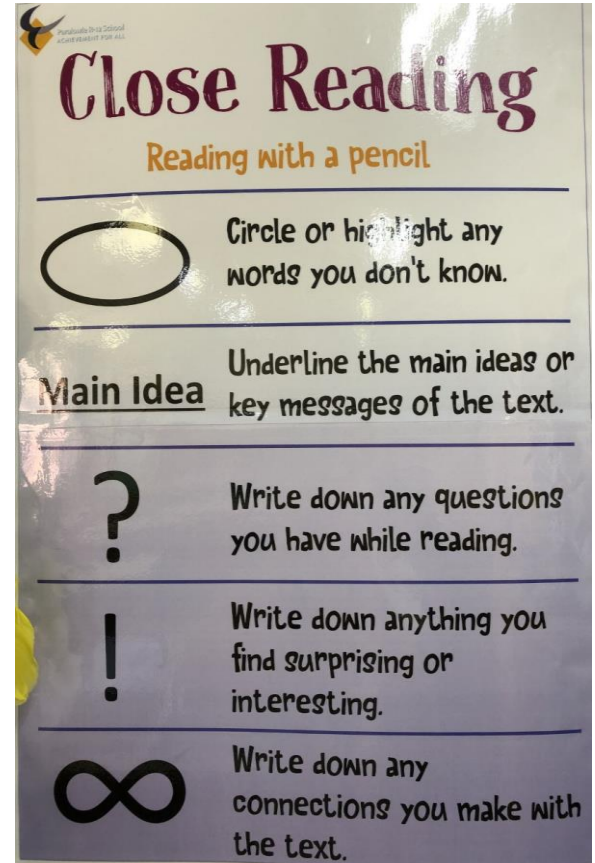
## Week 1: Comprehension Task:

### Interoception, the Mind and the Body

Receptors in your muscles and joints tell you where your body parts are. That's the basis for your proprioceptive sense, which makes you aware of where your body is in space. When you take a step, for example, you know your foot is off the ground without having to think about it. People with poor proprioception have trouble with this.

Interoception is a similar concept. Just as there are receptors in your muscles and joints, there are also receptors inside your organs, including your skin. These receptors send information about the inside of your body to your brain. This helps regulate our vital functions like body temperature, hunger, thirst, digestion and heart rate.

Interoception helps you understand and feel what's going on inside your body. For instance, you know if your heart is beating fast or if you need to breathe more deeply. You're able to tell if you need to use the bathroom. You know if you're hungry, full, hot, cold, thirsty, nauseated, itchy or ticklish.



### Interoception and Self-Regulation

Having trouble with this sense can also make self-regulation a challenge. When you're able to tell that you're thirsty, you know to take a drink. When you can feel that your bladder is full, you know to use the bathroom. When you feel a sense of frustration, you know to explain what's troubling you.

Interoception and understanding how to self-regulate helps you to learn to respond to your physical and emotional needs instead of reacting in a negative way.

Interoception can connect to mindfulness tasks including yoga, meditation and using your senses to understand your body's needs.

# Interoception Unit Plan

Once you have read through and discussed the Close Reading fill in the following table. Think of words or sentences that connect to how you *mentally* feel during these emotions and how you may *physically* feel during these emotions.

Emotion	Physically how do I feel?	Mentally how do I feel?	What can I do to regulate this emotion?
Happy			
Excited			
Silly			
Nervous			
Anxious			
Sad			
Tired			
Irritated			
Angry			

# Interoception Unit Plan

## Week 2/3: Summative Task – Emotions Poster

<b>Subject: Food &amp; Technology</b>	<b>Topic: Interoception and Sugar</b>
<b>Name:</b>	<b>Due Date</b>

### Purpose:

The purpose of this task is to research various emotions and how the body responds. Students will need to investigate one specific emotion where they will then need to analyse different strategies to help regulate (self-regulation) the emotion. This will be completed on a poster in order for other students to view the poster to help support and regulate their emotions.

**Format: Poster**

**Word Count: 400**

This assignment will be completed as a poster using ICT (Word/Power Point/Publisher/Canva) or, hand written.

### Part 1: Emotion

You will firstly need to choose one of the following emotions for your research task:

**Sad   Angry   Agitated   Nervous   Scared**

### Part 2: Research

Once you have chosen the emotion you must research and answer the following questions:

1. What is the emotion? Elaborate on the meaning of the emotion.
2. What are the synonyms that connect to the emotion?
3. What is interoception? How does interoception help us to understand our emotions?
4. What are the bodies physical reaction to the emotion?  
**Example: Angry the body can become overheated and heart rate increases.**
5. What is a mindful activity that can help lower the emotional and physical response to this emotion? Include photo evidence of how this activity can be completed. **Example: Anxious emotion, one can complete a sensory task.**

### How do you feel when your angry?



Some times people feel angry.

When you feel angry your face may turn red and feel hot, your body might get very tense, you might want to shake your fist in the air or yell at someone.

When your angry you might put your teeth together really tight and your eyebrows might go down really low. You also might cross your arms.

### Don't forget!

Don't forget to include a bibliography and to also draft your work for spelling and grammar corrections!

\*\*\*\*\*Make your poster engaging to ensure students will read and use your strategies for your chosen emotion\*\*\*\*\*



# Interoception Unit Plan

## Week 2/3: Summative Task Rubric

<b>A Excellent</b>	<b>B Good</b>	<b>C Satisfactory</b>	<b>D Some understanding</b>	<b>E Unsatisfactory</b>
An excellent understanding of specific emotion along with the bodies physical response to this emotion giving a clear and concise example.	A good understanding of specific emotion along with the bodies physical response to this emotion giving a clear example.	A satisfactory understanding of specific emotion along with the bodies physical response to this emotion giving an example.	Some understanding of the specific emotion. Examples are given with little depth.	Unsatisfactory understanding of specific emotion along with the bodies physical response to this emotion with little to no examples given.
Excellent use of reliable online resources ensuring language and information has been collated correctly into own words. Detailed bibliography completed.	Good use of mostly reliable online resources ensuring language and information has been collated into own words. Bibliography completed.	Satisfactory use of online resources. Most language and information has been collated into own words. Bibliography completed.	Some use of online resources. Little language and information has been collated correctly into own words. Partial bibliography completed.	Little use of reliable online resources. Language and information has not been collated correctly into own words. No bibliography completed.
Extends their clear understanding of the importance of self-regulation and gives detailed strategies that can be used to respond positively to specific emotion.	Has clear understanding of the importance of self-regulation and strategies that can be used to respond positively to specific emotion.	Has a satisfactory understanding of the importance of self-regulation and includes a strategy to respond positively to specific emotion.	Some understanding of the importance of self-regulation. Superficial / incomplete strategy that can be used to respond positively to specific emotion.	Unsatisfactory understanding of the importance of self-regulation. No strategy given to respond positively to specific emotion.
Uses clear and concise language throughout assessment including correct grammar, punctuation and spelling.	Uses mostly clear and concise language throughout assessment including correct grammar, punctuation and spelling.	Uses some clear and concise language throughout assessment including correct grammar, punctuation and spelling.	Needs improvement in their language throughout assessment including correct grammar, punctuation and spelling.	Uses little clear and concise language throughout assessment including correct grammar, punctuation and spelling.

# Interception Unit Plan

## Week 4: Ted ED Video

Ted ED Video and Comprehension:

<https://ed.ted.com/lessons/targetText=When%20you%20eat%20something%20loaded,and%20leaves%20you%20craving%20more>.



# Interoception Unit Plan

## Week 5: Sugar and your Emotions

<b>Subject: Food &amp; Technology</b>	<b>Topic: Sugar and your Emotions</b>
<b>Name:</b>	<b>Due Date</b>

### Purpose:

The purpose of this task is to research the affect sugar has on our body and our emotions. Students will need to create a persuasive advertisement for teens. This advertisement must include the negative response our body has to sugar and healthier alternatives to eat instead of high-sugar content foods.

**Format: A3 Advertisement**

**Word Count: 400**

This assignment will be completed as an A3 Advertisement using ICT (Word/Power Point/Publisher/Canva) or, hand written.

### Part 1: Research

You will firstly need to answer the following information for your advertisement to inform teens of the negatives of sugar on their emotional and physical health.

1. What is sugar? What types of foods contain sugar?
2. What does hidden sugar mean? Give advice on how teens can check for sugar content in their foods **(nutritional label and how to read it).**
3. Give an example of a food or drink with hidden sugar. **Include label and amount (grams) of hidden sugar.**
4. How does the brain react to sugar? Discuss the 'sugar high' and the low after consuming sugar.
5. Discuss emotional state if too much sugar is consumed. **Example; silly, agitated, memory loss, low concentration.**
6. Discuss the physical effects sugar has on the body.
7. List types of food and dishes that are high in nutrition but low in sugar that students would like. **Examples; smoothie bowls, fruit salads, home-made burgers, fresh juices.**



*This is an advert to promote healthy eating and make teens aware of sugar and its effect on the body. Ensure you have a catchy slogan, images, and language targeted at teenage audience.*

### Don't forget!

\*\*\*Use reference to information you have used through the term including, **That Sugar Film** and **Ted Ed Sugar and the Brain**\*\*\*\*

Don't forget to include a **bibliography** and to also draft your work for **spelling and grammar** corrections!



# Interoception Unit Plan

## Week 5: Summative Task Rubric

A Excellent	B Good	C Satisfactory	D Some understanding	E Unsatisfactory
An excellent understanding of the bodies physical and emotional response to sugar. Student has given clear evidence of sugars effects and appropriate food alternatives for teens.	A good understanding of the bodies physical and emotional response to sugar. Students have given evidence of sugars effects and appropriate food alternatives for teens.	A satisfactory understanding of the bodies physical and emotional response to sugar. Students have given some evidence of sugars effects and alternative food for teens.	Some understanding of the bodies physical and emotional response to sugar. Students have given little evidence of sugars effects and appropriate food alternatives for teens.	Unsatisfactory understanding of the bodies physical and emotional response to sugar. Student has given no evidence of sugars effects and appropriate food alternatives for teens.
Excellent use of reliable online resources ensuring language and information has been collated correctly into own words. Detailed bibliography completed.	Good use of mostly reliable online resources ensuring language and information has been collated into own words. Bibliography completed.	Satisfactory use of online resources. Most language and information has been collated into own words. Bibliography completed.	Some use of online resources. Little language and information has been collated correctly into own words. Partial bibliography completed.	Little use of reliable online resources. Language and information has not been collated correctly into own words. No bibliography completed.
Extends their knowledge of the importance of a balanced diet and the hidden sugars found in food and drinks. Has a clear understanding of how to correctly read and explain a nutritional label to others.	Has good knowledge of the importance of a balanced diet and the hidden sugars found in food and drinks. Has good understanding of how to read and explain a nutritional label to others.	Has satisfactory knowledge of the importance of a balanced diet and the hidden sugars found in food and drinks. Has a found understanding of how to read and explain a nutritional label to others.	Has some understanding of the importance of a balanced diet and the hidden sugars found in food and drinks. Has little understanding of how to read a nutritional label.	Has no understanding of the importance of a balanced diet and the hidden sugars found in food and drinks. Has partial understanding of how to read and use a nutritional label.
Uses clear and concise language throughout assessment including correct grammar, punctuation and spelling. Evidence of persuasive language used correctly and to the targeted audience.	Uses mostly clear and concise language throughout assessment including correct grammar, punctuation and spelling. Evidence of persuasive language used connected to the targeted audience.	Uses some clear and concise language throughout assessment including correct grammar, punctuation and spelling. Evidence of some persuasive language used.	Needs improvement in their language throughout assessment including correct grammar, punctuation and spelling. Little evidence of persuasive language used.	Uses little clear and concise language throughout assessment including correct grammar, punctuation and spelling. Evidence of persuasive language used correctly and to the targeted audience.



# Interoception Unit Plan

## My Food - Emotions + Body Signals Diary

Day	Hunger out of 1/10	Situation	Body Signals/Feelings	Food	Hunger out of 1/10	Body Signals/Feelings
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						



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