



# The Response to Stress

## Information for School Staff

### Introduction

All staff and students have been in a period of readjustment while schools have been closed. Some may be enjoying the time at home and will return to school ready to work and learn but some have had to adapt to significant challenges and highly stressful situations, e.g. coping with a family member's illness or death, having loved ones who are front line workers, financial stress due to loss of jobs or, for some, living with violence and abuse in the home. Some families who experienced challenges prior to the pandemic have seen these difficulties continue or increase. School staff may not always be aware of the stressful situations that the students were in during public health restrictions. Some students may find it very difficult to settle back into the school routine and concentrate, remember and learn because of the stress they have experienced. Not all people will respond to stress in the same way and each person will have their own unique coping mechanisms. It is important that adults supporting students in schools are aware of this variety of stress responses and their effects on themselves and the students they support.

This handout outlines:

- What happens in the body in response to stress
- The needs of children who have experienced chronic stress
- The impact that it can have on their behaviour and learning
- How to intervene using the 3 R's – Regulate, Relate, Reason.

### What is stress?

Stress is a temporary response to feeling under pressure or threatened. What is threatening to one person may not be to another.

When we feel threatened, our bodies prepare us to respond by increasing our heart rate, and releasing hormones. This is described as the **fight-flight-freeze** response and it is automatic.

Children can experience a range of stressors throughout their childhood; however, it is important to note that not all stress is harmful.

**Positive stress** refers to common, routine life events that may cause a temporary



increase in our stress level but from which we quickly recover. Positive stress can motivate people to prepare more or try harder and it is an important and necessary part of development.

**Tolerable stress** refers to experiences that are potentially traumatic and cause significant levels of stress that last longer. These experiences cause a child's body to generate a stress response that lasts a bit longer. Over time, the child's mind and body can recover from the experience because of the support of caring adults around them. This experience can help them to develop the resilience to cope with challenging situations.

**Toxic stress** becomes a problem when people feel worried or anxious a lot of the time, for a prolonged period of time. This can mean that the person's stress response is 'on' all of the time or that it can be easily triggered. They are alert to potential dangers and their body will then react in an automatic way that appears helpful to their survival i.e. the **fight-flight-freeze** response. Persistent toxic stress can make it more difficult to cope with any stress in the future

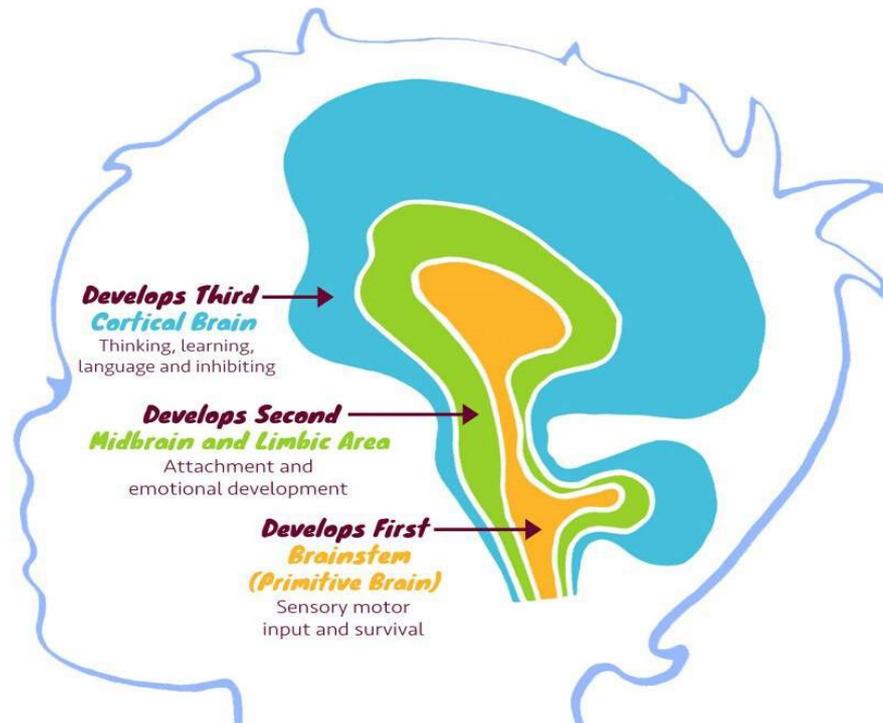
### What happens in the stress response?

The stress response is our body's natural reaction to stressful events. The brain becomes aware of a potential threat and sends signals to the body to prepare for a potential need to take action: **fight, flight** (run away) or **freeze** (shut down). When this happens we might feel physical responses in our body e.g. faster breathing, racing heart-beat, sweaty palms, shaky knees. The role of our stress response is to protect us from danger.

This response may also be described in terms of anxiety, worry, nervousness, fear or tension. These are normal emotional reactions to stressful situations which all people feel at times. However, if this **fight-flight-freeze** response remains turned on, or is easily triggered, it means that the brainstem or 'survival part of the brain' is being used. When this happens the other parts of our brain shut down.

### The impact of chronic stress on children

The brain develops as the child grows from birth to adolescence:



([Beacon House, 2019](#))

The **brainstem** is the part of the brain that is alert to danger and reacts by triggering the **fight-flight-freeze** response. This part of the brain is responsible for keeping us alive and it remains active throughout the time we perceive danger. The difficulty for people who experience sustained and chronic stress is that even when they are in a safe environment, this part of the brain is easily triggered or remains 'on' and in **fight-flight-freeze** survival mode. In this state, everyday events are perceived as dangerous and very little information can get through to the other parts of their brain that deal with social interaction, relationships and thinking and reasoning. This means that children who live in chronically stressful situations find it very difficult to form secure relationships; regulate their emotions or behaviour; think, learn or reflect because they are focused on staying alive in a world that they perceive as dangerous.

The development of the brain happens in sequence with early development affecting all subsequent development. This is why chronic stress experienced early in life can have a huge impact on a child's development and learning.



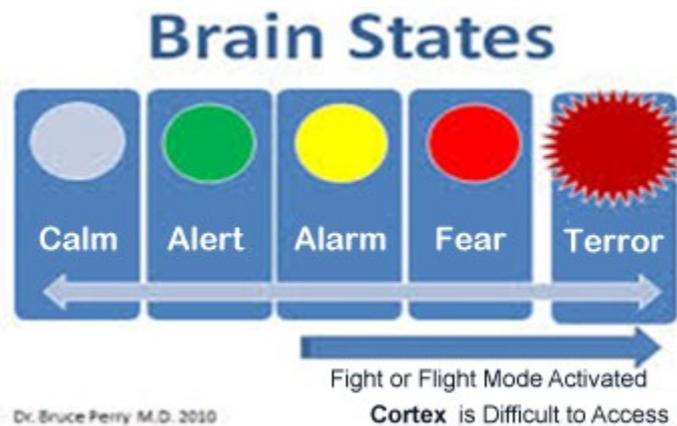
Thinking and learning happens in the **cortical brain**. It is this part of the brain that helps us to evaluate a situation and make rational decisions based on the information that we have to hand or have learnt previously. However, this vital part of the brain cannot engage when the stress response is turned on. It is only when people feel safe and have access to the thinking part of their brain that they can calm themselves down, relate to others and learn.

All children need the support of adults as they gradually learn the skills to calm themselves, interact with others and think about their behaviour. These skills require time to develop as the brain is continually growing and developing from birth to adolescence and into early adulthood.

### **The stress continuum:**

Our response to stress not only affects our behaviour and body responses. Stress affects our sense of time, our ability to plan ahead and organise ourselves as well as how we learn, think and remember information. The more stressed we are the less we are able to think and plan and it is important to understand this in terms of children and young people's readiness to learn and engage both with the curriculum and with other people.

Dr Bruce Perry (2017) describes this as a continuum of stress responses to perceived threat. This continuum ranges from feeling calm, to being alert, feeling alarmed, feeling afraid and, finally, to feeling terror. We are in one of these five brain states at all times.



When we are **calm** and our thinking brain system is engaged we are able to plan ahead. We have a concept of time into the future and we can think about cause and effect, plan and organise ourselves.

In an **alert** state our concept of time becomes more limited to days and hours ahead and our thinking becomes more concrete and less abstract.

When we feel an increasing sense of **alarm**, our concept of time becomes reduced to the next few hours and our thinking becomes more governed by our emotions.

As our **fear** grows our sense of time is further reduced and in this state we can only think about the next few seconds and we become reactive in our behaviours.

When we are **terrified** we have no sense of time and operate only through reflex; in this state we cannot think clearly or use conscious logical reasoning and we cannot engage socially.

People show different responses to different levels of stress, either becoming more watchful, stubborn, defiant and aggressive (**fight**) or becoming more avoidant, compliant or 'tuned out' (**flight/freeze**).

When someone is exposed to prolonged stress their stress response is always on. They may move from **alarm** to **fear** or **terror** quickly as they find it difficult to access their thinking brain and to think logically about what is in front of them. They are acting and behaving from a place of survival. Their stress systems may become sensitised with the result that they respond to ordinary experiences as though they were threatening.

This is why sometimes people are described as going 'from zero to a hundred' reacting to harmless incidents in an extreme way. It is also possible for people to



**appear** calm even though their stress response is continually on and they are never completely calm inside. These stress responses can be interpreted by others as misbehaviour or withdrawn behaviour. This may leave them disorganised and unable to learn, to maintain relationships, to plan or to relate cause and effect in order to make informed choices.

Many students may not be ready to learn once school recommences because of the stress they have experienced. These students may need to be supported in different ways than in the past as their needs may have changed as a result of their experiences during school closure.

### What does this mean for learning?

To be able to think and learn we need to feel safe and secure. When we are stressed or anxious we can often find it difficult to focus on a task or even hold a conversation. If a student is feeling stressed a lot of the time it will be very difficult for them to engage with learning as their body and brain is focused on keeping safe. It is helpful if adults working with young people understand the progressive effect of stress and can adjust their expectations and responses accordingly. Adults need to support young people to come back along the stress continuum to feel calm and safe. This allows all of the necessary parts of their brain to engage and provide them with the ability to relate, think and reason.

We sense if others are stressed and this heightens our own response. Adults must understand and manage their own responses to enable them to understand and support young people compassionately as well as look after themselves. Only when adults are calm can they effectively provide the support described below.

### The 3-R's: Regulate- Relate-Reason

Dr. Bruce Perry has developed a simple but powerful model to show how to re-engage the thinking brain when a person is stressed and operating in survival mode. This works well for students or adults whose stress response is always on or easily triggered.

#### The 3 R's:

Regulate



Relate



Reason



## Regulate

When someone becomes very stressed (dysregulated), they are operating in the survival part of their brain. An actual or perceived threat has triggered their stress response and they are no longer in the calm/relaxed state. This can lead to **fight-flight-freeze** behaviour as their ability to listen, learn, comprehend, and cope will be significantly impaired. It is important to help people to become calm and feel safe in order to enable them to access their ability to relate socially. This can be done through a pattern of repetitive and soothing tasks, such as deep breathing, doodling or walking (See [Appendix 1](#) for examples).

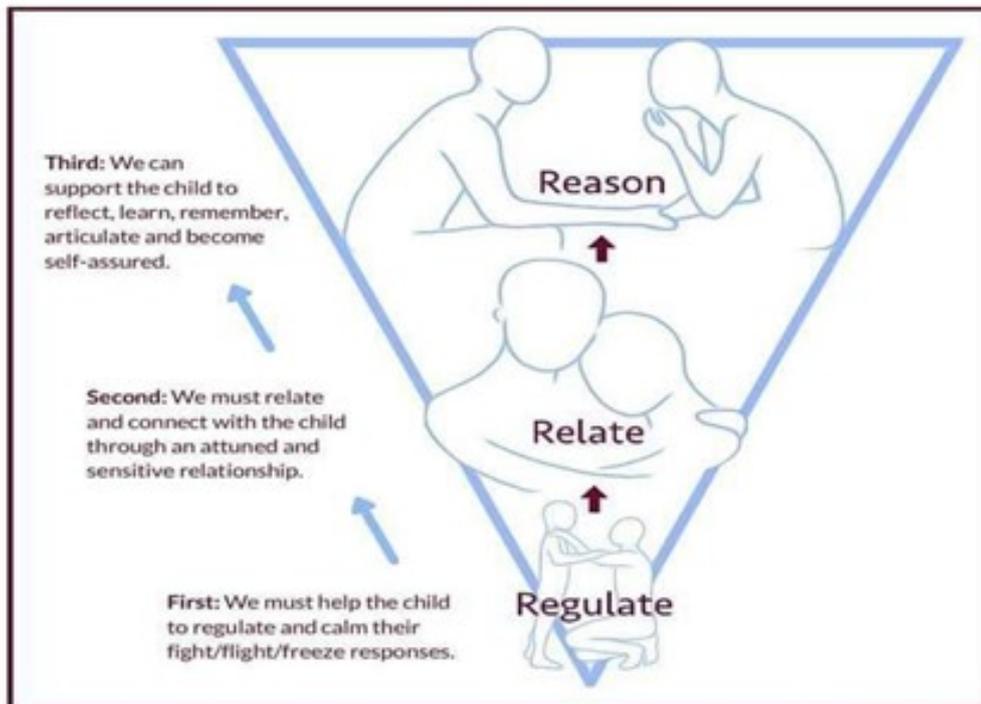
## Relate

Once someone is calmer we need to relate and reconnect with them in a way that reminds them that they are safe, understood and supported. Dr Perry states that *“the most powerful buffer in times of stress and distress is social connectedness.”* At this time we need to stay physically distant but emotionally close.

Instinctively, we may wish to talk and reason when someone is stressed but ways of communicating other than using words can be more effective at this time. Non-verbal communication and tone of voice used can be more significant than the actual words used. If you can relate to others in an attuned and sensitive way this will have a powerful effect in reducing the impact of stress on them. Examples of ways to relate include eye contact, listening, validating feelings (See [Appendix 1](#) for more examples).

## Reason

Reasoning involves our thinking brain. It is only when someone is calm (**Regulated**) that they are able to form trusting relationships (**Relate**) and access their ability to understand think and reflect (**Reason**).



Heading straight for the 'reasoning' part of the brain with an expectation of learning, will not work so well if the child is dysregulated and disconnected from others.

([Beacon House, 2019](#))

If this sequence is followed and modelled, it will help us to communicate effectively and support people to reflect, learn, remember and express themselves and their feelings. Relationships cannot be built and skills cannot be learnt when people feel stressed. Feeling safe and calm provides a foundation that allows all other elements of wellbeing to develop. Dr. Perry argues that an environment that is relational, relevant, repetitive, rhythmical, respectful and rewarding helps in times of crisis.

### Further information

See *Self-regulation for pupils/students: A Guide for School Staff* for more practical strategies to help distressed students.

See Dr Dan Siegel's [Hand Model of the Brain](#) explains how we can use our ability to reason, or 'flip our lid' in perceived stressful situations.

See online presentations and resources about the application of [Dr Perry's model](#) to the current pandemic.

### References

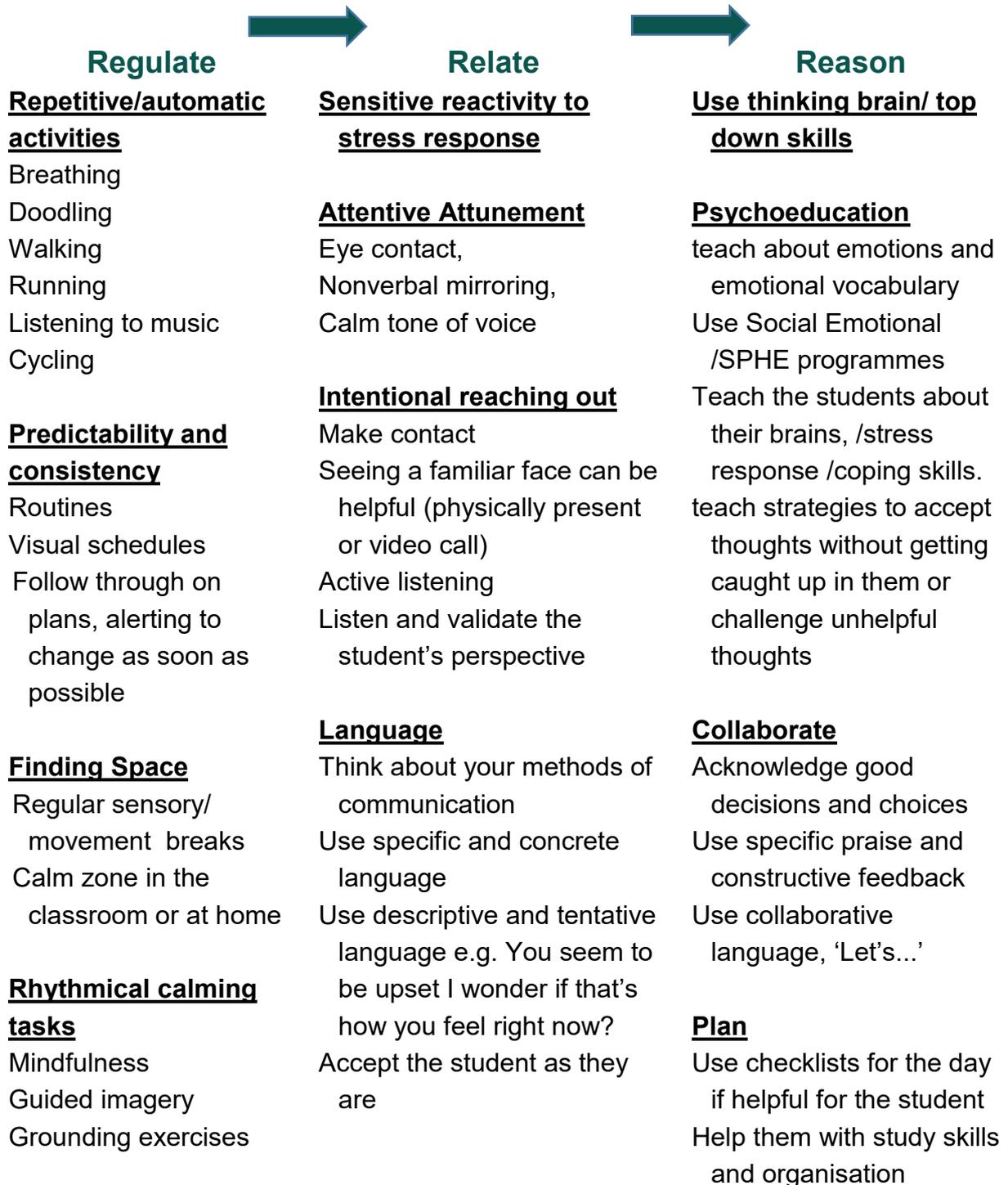
[www.neurosequential.com/covid-19-resources](http://www.neurosequential.com/covid-19-resources)

<https://www.bdperry.com/>



## Appendix 1:

### Strategies to Regulate, Relate and Reason (Self and Others)



## Appendix 2:

### Regulate-Relate-Reason for a stressed or a distressed student.



<b>Regulate</b>	<b>Self-Regulate:</b> Stay in the present moment, ground yourself, breathe steadily, focus your attention on your student, and clear your mind. For a younger student, get down to their eye level to reduce any possible sense of threat.
	<b>Student Regulate:</b> Since your student's thinking brain is turned off trying to reason with them won't work. At this stage you need to make them feel calm and safe.
<b>Relate</b>	<b>Relate.</b> As they calm down use short sentences. You can validate their feelings with your words and tone of voice. Use short sentences such as "I know you feel upset right now, this is very hard". Your focus here is connecting with the student.
<b>Reason</b>	<b>Reason.</b> Once your student is calm it is time to help them think things through and talk about alternative choices and strategies they could try to use in the future.