

TEACHER INFORMATION SHEET

THE BRAIN

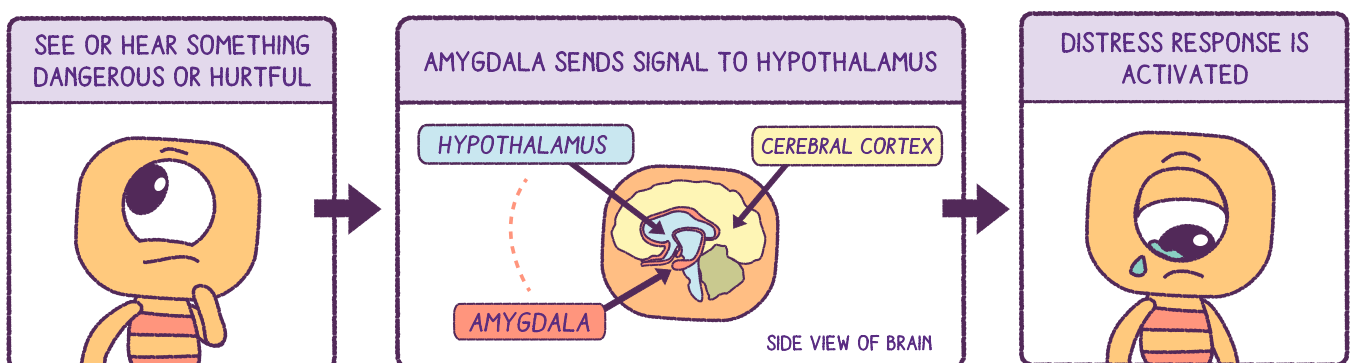
KEY FACTS FOR TEACHERS ABOUT THE BRAIN:

1. **The brain is a social organ.** As a result, close supportive relationships help stimulate positive emotions, neuroplasticity, and learning.
2. **Two brains or one?** The Greek Philosopher (Plato suggested the human mind consists of (i) basic survival instincts (ii) emotions and (rational thought) suggesting there are specialised areas of the brain (triune brain) vs the single brain hypothesis with the brain being best understood as a network.
3. **The reactive vs the predictive brain.** One view is that your brain is constantly responding and reacting to its environment vs the idea that the function of the brain is meet the body's needs (its budget) by predicting what resources are needed and where to direct these resources.
4. **The mind, brain and body.** One view has it that humans comprise three elements vs the idea that the 3 elements are all inter-connected.
5. **Fear and stress impair learning – fight, flight or freeze responses are associated with stress.** Stressful situations trigger the release of the stress hormone cortisol, which interferes with neural growth. Prolonged stress impairs our ability to learn and maintain physical health.

The F³ system (fight, flight or freeze) is critical to our survival from true threat or danger, but what happens when there is no real danger? Interestingly, anxiety can also trigger this system into action when we believe there is threat or danger even if there is not.

The stress response begins in the brain (see illustration). When someone confronts a danger, the eyes or ears (or both) send the information to the amygdala, an area of the brain that contributes to emotional processing. The amygdala interprets the images and sounds. When it perceives danger, it instantly sends a distress signal to the hypothalamus.

THE BRAIN - A COMMAND CENTRE



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WHAT CAN SCHOOLS & TEACHERS DO TO REDUCE A STUDENT'S STRESS

Relaxation response. Techniques include deep abdominal breathing, focus on a soothing word (such as peace or calm), visualisation of tranquil scenes, repetitive prayer, yoga, and tai chi. For some children it is not helpful.

Physical activity. Exercise can help to stifle the build up of stress in several ways. Exercise, e.g. a brisk walk only deepens breathing but also helps relieve muscle tension. Movement therapies such as tai chi combine fluid movements with deep breathing and mental focus, all of which can induce calm.

Social support. Friends, and classmates provide a social helps sustain children at times of chronic stress and crisis.

Brush it off! Beginning at the top of the head use your hands to gently brush down the face and front of the body, flicking away the negative energy.

Leave it at the door. Place a small paper shredder, paper, pens and a trash bin by the classroom door. Ask students to write a word or sentence that represents something causing them stress and then have them shred it!

Draw your feelings. Children respond well to visual manifestations of stress. Ask them to draw their feelings of stress on a piece of paper. They can use crayons, markers, coloured pencils or even paint. Then ask them to crumple up the paper or tear it into pieces. As they get up to throw the paper away, explain to them that they are also throwing away the negative feelings and stressors.

REFERENCES

The student wellbeing hub professional resources:

studentwellbeinghub.edu.au/educators/search-results/?query=stress&tab=resources#results

The student wellbeing hub professional resources:

studentwellbeinghub.edu.au/educators/professional-learning/resilient-and-inclusive-class-rooms#/

Mind & Brain Centre:

www.sydney.edu.au/brain-mind/