



# The Green Hub Project for Teens

## Life Skills for Teens

### Chapter four

**In this session we talk about the three parts of the brain that can get overwhelmed and how this can affect our thinking and learning.**

We will talk about the simple strategies we can do to calm our different parts of our brains down.

We will then talk about the theory of the hot and cold empathy gap and what this means, and how we can start to recognise when our bodies and minds are 'hot' and 'cold'.

#### The Amygdala

**These are two small glands that filter information when it comes into our brains. It is very sensitive to stress and can temporarily shut down when we are really anxious or stressed, like in an exam. It grows the more stressed we are and gets smaller when we are in a calm state.**

The way to counteract this, is to breathe slowly in through the nose and out from the mouth. Check out our breathing pdf that we have provided for you.

Again, it wouldn't be right if we didn't add some techniques to help getting out of a 'hot' state, and we are going to talk about several breathing techniques.

#### The Prefrontal Cortex - PFC

**After the information has been filtered from the amygdala it goes forward to the PFC. This is at the forefront of our brains right under our foreheads. This part of the brain is very complex.**

This is where we do higher order thinking and calculations. Any School work and problem solving occurs here. We also use this part of the brain when we do complex sports.

When we are overwhelmed, we usually get the feeling of brain fog or difficulty thinking straight and this is linked to the PFC.

#### The Hippocampus

**These are two parts of our brain that are named after a seahorse. Strangely it doesn't really look like a seahorse.**

The Hippocampus helps us with filing and organizing our short-term memory, and it is also break-pedal for stress. This part of the brain can shrink when we are stressed and grow when we do activities like cardiovascular exercise and meditation. It is really helpful to understand how the brain works, so we can look after it better.





### Some of the activities that can help us to support these parts of the brain are:

- Creating 'brain breaks' in our day.
- Running, or doing any aerobic exercises on a regular basis.
- Balancing and yoga, including deep breathing.
- Singing, dancing, music, doing puzzles.
- Art and creativity, doodling, where you entirely focus on the activity.
- DIY-making activities.
- Doing meditation on a regular basis. Ten minutes a day is really helpful.
- Fostering authentic friendships, and being around people with whom you can be yourself.
- Being in nature and gardening.

### Reflection for you:

- **What brain-break activities could work for you?**
- Could you find space in your life to bring these in regularly?

## The Hot and Cold empathy gap theory. (Lowenstein, George, 2005)

This talks about how we can be in a hot and cold state. Being in a hot state is when we are angry, upset, short tempered, and unable to make good decisions due to our mood.

Being in a cold state is when we are calmer and more considerate and able to make good decisions and reflect on life.

### Tips for how to be less in a hot state:

- Start planning our day better, being more organized, eating regular meals to reduce blood sugar drops, drinking more water and getting enough sleep.
- Science has also shown that when we meditate regularly, we get better at being reflective and less short tempered, so ten minutes a day can really save a short fuse.





## Breathing for overwhelm

There are lots of different breathing mechanisms that can really make a difference to how we feel. Simply put, when we breathe in and out, and the out-breath is slower than the in-breath we tell the brain that we are safe. This is why many techniques focus on slower outbreath.

### The Physiological sigh breath

This is a newly rediscovered technique which has proven to be really effective to counteract stress. Professor Andrew Huberman from Stanford University has highly recommended this in his work.

### How do you do the physiological sigh breathing?

You first breathe in quickly through your nose. Then immediately do this again as far as you can. Then breathe out really slowly through pursed lips. Do this three times and it can really help us to find calm when we have been stressed. This can be seen in animals like dogs, when they settle down to sleep.

We will also add an extra pdf for you, with The box breathing technique, finger breathing and the 5, 4, 3, 2, 1 technique.

### Reflection for you:

- **Can you give all the different breathing technique a go?**
- Write down which one worked best for you.
- Remember that you might need one for one occasion and one for another. There are no one size fits all with these strategies.

### IMPORTANT: Your feedback is really helpful to us...

**We'd love to hear from you about how you think this course is going for you?**

- Are you getting something from it, is it helping you and anything we can do to make the course even better?
- **Please click on the link below and tell us what you think – It won't take more than a few minutes. THANK YOU**
- The link is here: <https://bit.ly/47vXOB7>

