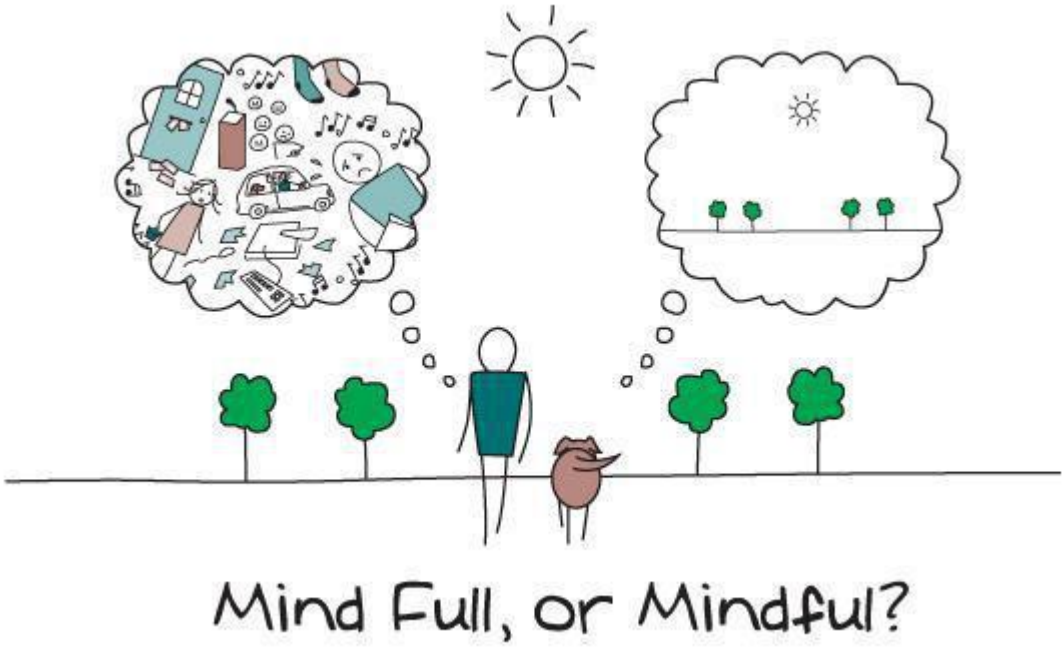
Briefing for Education Staff:

Mindfulness and the application to children.



Don't worry about the world coming to an end today,
it's already tomorrow in Australia.

Charles Schulz (in *Zen Paths to Laughter*)

There may be many things going on right now, such as all the sensory stimulation in your immediate environment, body sensations, thoughts and feelings in your mind of which you probably were not consciously aware. Our habitual routines enable us to go through repetitive motions, not actually paying attention to what we are doing. Our minds wander elsewhere, and we end up 'eating without tasting, looking without seeing, and talking without knowing what we are saying' (Hooker & Fodor 2008).
Children in particular, live in worlds where they are regularly told what to do: what time to wake up, what time to go to school, how to do each activity while at school, and so on. Their lack of agency may lead to going through the motions of their daily tasks without conscious awareness of what they are doing. This may impact on their ability to function independently, think for themselves and behave responsibly.
We can teach children to begin to pay attention to those things in the present moment that they never noticed before through a process called 'mindfulness'. Training in mindfulness has the potential to enhance children's attention and focus, improve memory, self-acceptance, self-management skills, and self-understanding.

"Mindfulness-Based Approaches" (MBA)
The term "Mindfulness-Based Approaches" (MBA) refers to the range of programmes and strategies aimed at the development of mindfulness. The term "mindfulness" has been used to refer to a 'psychological state of awareness', a 'practice that promotes this awareness', a 'mode of processing information', and a 'characterological trait' (Brown et al., 2007; Germer, Siegel, & Fulton, 2005; Kostanski & Hassed, 2008; Siegel, 2007b). The word *mindfulness* originally comes from the Pali word *sati*, which means having awareness, attention, and remembering (Bodhi, 2000).

Mindfulness can simply be defined as "moment-by-moment awareness" (Germer et al., 2005, p. 6) or as "a state of *psychological freedom* that occurs when attention remains quiet and limber, *without attachment* to any particular point of view" (Martin, 1997, p. 291). Mindfulness has been more succinctly defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experiences moment by moment" (Kabat-Zinn, 2003, p. 145). In this sense, mindfulness is viewed as a state and not a trait, and while it might be promoted by certain practices or activities (e.g., meditation), it is not equivalent to or synonymous with them.

A clearer understanding of the term can only be appreciated through a full experiential involvement achieved through the practice of the techniques described in mindfulness literature (Kabat-Zinn, 2003). Mindful moments are:

- Nonconceptual. Mindfulness is an awareness, without absorption, of our thought processes.
- Present-centred. Mindfulness is always in the present moment (Thoughts about our experience are one step removed from the present moment).
- Non-judgemental. Awareness cannot occur freely if we would like our experience to be other than what it is.
- Intentional. Mindfulness always includes an intention to direct attention somewhere. Returning attention to the present moment gives mindfulness continuity over time.
- Participant observation. Mindfulness is not detached witnessing. It is experiencing the mind and body more intimately.
- Nonverbal. The experiences of mindfulness cannot be captured in words, because awareness occurs before words arise in the mind.
- Exploratory. Mindful awareness is always investigating subtler levels of perception.
- Liberating. Every moment of mindful awareness provides freedom from conditioned suffering.

What follows is some of the research evidence concerning the empirically supported benefits of mindfulness:

There is evidence that mindfulness helps develop effective emotion regulation in the brain (Corcoran, Farb, Anderson, & Segal, 2010; Farb et al., 2010; Siegel, 2007b). Research has demonstrated that mindfulness meditation enables people to become less reactive (Cahn & Polich, 2009; Goldin & Gross, 2010; Ortner, Kiner, & Zelazo, 2007; Siegel, 2007a, 2007b) and have greater cognitive flexibility (Moore & Malinowski, 2009; Siegel, 2007a, 2007b).

Evidence indicates that mindfulness meditators develop the skill of self-observation that neurologically disengages automatic pathways created from prior learning and enables present moment input to be integrated in a new way (Siegel, 2007a). Meditation activates regions of the brain associated with more adaptive responding to stressful or negative situations (Cahn & Polich, 2006; Davidson et al., 2003). Activation of this region of the brain corresponds with faster recovery to baseline after being negatively provoked (Davidson, 2000; Davidson, Jackson, & Kalin, 2000).

A recent meta-analysis of 39 studies supports the efficacy of mindfulness-based therapy for reducing anxiety and depression symptoms (Hoffman, Sawyer, Witt, & Oh, 2010).

Hoffman et al. (2010)'s findings are consistent with evidence that mindfulness meditation leads to increased positive affect and decreased anxiety and negative affect (Davidson et al., 2003; Erisman & Roemer, 2010; Farb et al., 2010; Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010; Way, Creswell, Eisenberger, & Lieberman, 2010).

Research indicates that mindful meditation may elicit positive emotions, minimize negative affect and rumination, and enable effective emotion regulation. Even eight weeks of mindfulness meditation practice may alter the ways in which emotions are regulated and processed in the brain (Williams, 2010).

The question of how mindfulness affects interpersonal behavior has addressed concepts such as mindful relating (Wachs & Cordova, 2007), mindful responding in couples (Block-Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007), and mindfulness-based relationship enhancement (MBRE) (Carson, Carson, Gil, & Baucom, 2006). Evidence indicates that trait mindfulness predicts relationship satisfaction, ability to respond constructively to relationship stress, skill in identifying and communicating emotions to one's partner, amount of relationship conflict,

negativity, and empathy (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007; Wachs & Cordova, 2007). People with higher trait mindfulness reported less emotional stress in response to relationship conflict and entered conflict discussion with less anger and anxiety (Barnes et al., 2007).

Evidence shows that mindfulness is inversely correlated with distress contagion and directly correlated with the ability to act with awareness in social situations (Dekeyser, Raes, Leijssen, Leyson, & Dewulf, 2008).

Empirical evidence suggests that mindfulness protects against the emotionally stressful effects of relationship conflict (Barnes et al., 2007), is positively associated with the ability to express oneself in various social situations (Dekeyser el al., 2008), and predicts relationship satisfaction (Barnes et al., 2007; Wachs & Cordova, 2007).

In addition to the affective and interpersonal benefits identified above, mindfulness has been shown to enhance functions associated with the middle prefrontal lobe area of the brain, such as self-insight, morality, intuition, and fear modulation (Siegel, 2007b, 2009).

There is also evidence that mindfulness meditation has numerous health benefits including increased immune functioning (Davidson et al., 2003; see Grossman, Niemann, Schmidt, & Walach, 2004 for a review of physical health benefits). Mindfulness meditation has been shown to improve well-being (Carmody & Baer, 2008) and reduce psychological distress (Coffey & Hartman, 2008; Ostafin et al., 2006). According to Baer (2003) the ability of mindful based interventions to increase well-being and reduce suffering accounts for their broad applicability across many areas of psychological pathology. It is thought that through developing mindfulness, social interactions are positively enhanced (Knowles, 2008).

Using a number of quantitative measures and diary analysis Crason, Carson, Gil, and Baucom (2004) found that participants practising mindfulness had a greater sense of autonomy and increased feeling of closeness to and acceptance of their partner. These benefits were maintained after a three-month follow-up. Mindfulness has been applied to parenting programs (Singh et al., 2007) and could potentially be applied to teacher–pupil interaction. Brown et al. (2007) have placed the benefits of mindfulness into three categories:

emotional well-being, behavioural regulation, and relationships and social interaction. Each of these is a domain in which educational psychologists work (Farrell, Woods, Rooney, Squires, & O'Connor, 2006).

Mindfulness is a well-researched field; this briefing paper has cited a small portion of the research to convey the breadth of its application, including emotional well being, behavioral regulation, relationship and social interaction. Since educational psychologists predominantly work with children, parents and teachers, these are all areas to which mindfulness might successfully be applied.

Due to the differences between adults and children in cognitive ability, life experience and culture, there is a necessity to give some consideration to the application of MBA to children and adolescents as distinct from that of adults with whom the majority of the research has been carried out (Grossman et al., 2004).

Whilst there are differences between adults and children, Hooker and Fodor (2008) concluded in their research that children would benefit in ways similar to adults. In a recent study by Flook et al. (2010), mindfulness was found to increase the executive functions of children between the ages of seven to nine, as well as resulting in increasing behavioral regulation and meta-cognition. Semple, Lee, Rosa, and Miller (2010) found in a study with nine to 13 year olds a decrease in anxiety for children using MBA. This has been supported in a randomized control trial by Biegel, Brown, Shapiro, and Schubert (2009), who used MBA with adolescents, resulting in a significant reduction in anxiety, depression, and somatic distress, and with a significant increase in self-esteem and sleep quality.

There is currently sufficient evidence for educational psychologists to incorporate MBA within their work but should be cautious with its application. Practitioners should identify exercises that are not likely to cause discomfort or reveal previously avoided discomfort, as is the intention of some components of MBA (Hayes et al., 2004). Mindfulness work with children should be closely monitored and evaluated.

What follows are suggestions for incorporating mindfulness into a primary school:
Adapted from Fontana and Slack, *Teaching Meditation to Children* (1997); Hooker and Fodor 'Teaching Mindfulness to Children' (2008) and HandsOnScotland http://www.handsonscotland.co.uk/flourishing_and_wellbeing_in_children_and_young_people/flourishing_topic_frameset.htm

Meets CfE targets

- HWB4 01a: I am aware of and able to express my feelings and am developing the ability to talk about them.
- HWB4 02a: I know that we all experience a variety of thoughts and emotions that affect how we feel and behave. I am learning ways of managing them.
- HWB4 04a: I understand that my feelings and reactions can change depending on what is happening within and around me. This helps me understand my own behaviour and the ways other behave.
- HWB4 07a: I am learning skills and strategies, which will support me in challenging times.

Mindfulness of the external environment

A way to introduce the concept of mindfulness to children is through directing their attention to things in their environment. The following exercises can draw children's attention to their surroundings, and illuminate the need for mindfulness by revealing what they are and are not aware of.

Ask the child to select an object to draw. Examples of objects might be a telephone, a shoe, scissors, or a clock. Tell the child to draw a picture of their object. Remind them that the activity is not focused on their ability to draw, as this could cause frustration in some children, and to simply do the best job they can. Then the child should spend time looking at the actual object, paying attention to smaller and smaller details. If this exercise is done in school or some other setting, it may be a homework assignment to spend time looking at the object. Then the child should draw the object again. Compare the drawings, and ask the child to identify the details missing from the first drawing that they remembered in the second. In most cases, the second drawing will be more accurate and life-like. Ask the child what it was like to spend time really looking at the object that might otherwise have been something they never took time to notice.

Mindfulness of the self in the environment

The second step in mindfulness training with children is to guide their awareness towards their own experience in the environment; in other words, to focus on the attention they are paying (or not paying) to themselves. You want to help the child to pay attention to both the environment and his or her actions, rather than moving through the day like a robot.

Ask the children to walk around a room. Ask them to lift one foot at a time slowly and carefully as if walking on eggshells or walking in slow motion. Ask them to place their foot down smoothly and slowly. Then ask them to take a step with the other foot the same distance ahead. Ask them to feel every muscle in their legs while they walk and every shift in body weight. Ask them to feel their hands and arms in space. You can ask them to move a bit faster, then more slowly again. Tell them that, if they begin to think about other things, they should gently allow these thoughts to pass, then return their attention to their body.

Mindfulness of the body

After the child has started to be more aware of the environment, the next step is to pay attention to their own experience, beginning with their body. This is important, as enhanced body awareness leads to fuller self-awareness.

- **Attending the Senses: The raisin meditation**

This next exercise is actually the first meditation practiced by participants in Kabat- Zinn's program. It is simple to do, and does not even require adaptation in order for it to be appropriate for children. It involves being aware of an object in the environment — in this case, a raisin—and then being aware of one's own experience of that object.

It is an excellent early practice with mindfulness, with clear instructions focused on awareness and nonjudgmental experience. It can be done with an individual child, or with a large group or class. Each child should be provided with three raisins. The exercise could be practiced again with another small food such as popcorn, but should not be repeated too much at the risk of becoming repetitive and uninteresting to the child, thus losing the purpose of the mindfulness.
This meditation can best be done by reading aloud to the children the following script in a slow, calm voice:
Bring your attention to the raisin, observing it carefully as if you had never seen one before. Pick up one raisin and feel its texture between your fingers and notice its colors. Be aware of any thoughts you might be having about the raisin. Note any thoughts or feelings of liking or disliking raisins if they come up while you are looking at it. Then lift the raisin to your nose and smell it for a while and finally, with awareness, bring it to your lips, being aware of the arm moving the hand to position it correctly and of your mouth salivating as the mind and body anticipate eating. Take the raisin into your mouth and chew it slowly, experiencing the actual taste of the raisin. Hold it in your mouth. When you feel ready to swallow, watch the impulse to swallow as it comes up, so that even that is experienced consciously. When you are ready, pick up the second raisin and repeat this process, with a new raisin, as if it is now the first raisin you have ever seen [Kabat-Zinn, 1990, p. 27].

- **Mindfulness and Breathing**

The most basic body-based meditation is breath counting (Lehman 1974; Gunaratana, 1991; Fontana & Slack 1997; Kabat-Zinn 1990). Meditation on the breath is fundamental to mindfulness: training to enhance the focus on the present moment of experience. When the exercise is done properly, the child is aware only of the present, as the focus is on the current breath rather than the one before it or the next one coming. The exercise also has the effect of calming the mind and any anxiety in the body that may be related to short, shallow breathing (Fontana & Slack, 1997).
This exercise should be introduced first by demonstrating breathing. For young children, this basic, natural function may be something to which they never paid attention before. Begin with noting how cool air enters the nose, and then warm air is exhaled. There should be no attempt to hold the breath, push it out, or change the natural rhythm—just to be aware. Using counting helps remind the child to stay focused on the breathing, avoiding other distracting thoughts. Counting can be done in different ways. For most children, it will be helpful to count "one" as they inhale, and "one" as they exhale, then "two" inhale, "two" exhale, and so on, up to five. Then they should start back at "one."
If they find it difficult to maintain their focus, they may repeat the number, counting "one, one, one, one" as they inhale, and the same as they exhale. Again, they should be reminded not to force the breath, but to follow its natural rhythm. Remind the child that in spite of his or her efforts to stay focused on breathing, his/her mind may wander away to places he/she has been, an activity once shared with a friend, a favorite book, or other thoughts. As the child becomes aware that the mind is no longer focused on the breath, he/she should simply note the thought and return to counting the breath, beginning with "one."

We are what we think. All that we are arises with our thoughts.
With our thoughts we make the world.
Kornfield [1996].

Meditation on the Bubble
When you listen to a thought, you are aware not only of the thought but also of yourself as the witness of the thought. Tolle, *The Power of Being,* "Portals to the Now"
To further focus on awareness of the thinking process as well as on letting go and not engaging thoughts, the meditation of the bubble is a useful mindfulness technique (LeShan, 1974). The purpose of this practice is to slow down, observe thoughts, and release them or let go without judgment. Begin the meditation by reading the following script slowly and in a calm voice. Then, allow the child to continue the meditation for a few minutes in silence, setting his or her own pace. This meditation can also be adapted to feature thoughts on

clouds drifting across the sky. *Begin by sitting in a comfortable position, with your back straight and shoulders relaxed. Softly close your eyes. Imagine bubbles slowly rising up in front of you. Each bubble contains a thought, feeling, or perception. See the first bubble rise up. What is inside? See the thought, observe it, and watch it slowly float away. Try not to judge, evaluate, or think about it more deeply. Once it has floated out of sight, watch the next bubble appear. What is inside? Observe it, and watch it slowly float away. If your mind goes blank, then watch the bubble rise up with "blank" inside and slowly float away.*

Some practice guidelines:

An essential component of mindfulness training is practice. It should be explained to children that practice in this case is not like practicing a musical instrument for a concert, but rather practice on a regular basis "aimed at cultivating a continuity of awareness in all activities of daily living" (Kabat-Zinn, 2003). Through bringing increased awareness to the external environment and to the internal experience of the body and the mind, children will likely benefit psychologically and emotionally, as well as through gaining a general sense of well being.

The goal is for children to learn to use mindfulness techniques whenever they need to calm themselves and refocus their energy and attention. Such a refocusing could enhance concentration, memory, and learning, as well as facilitate a more productive and relaxed—less anxious and stressful—school environment.

Some web useful links:

Supporting Young People's Health & Wellbeing - A Summary of Scottish Government Policy (March 2013)
http://www.scotland.gov.uk/Resource/0041/00418332.pdf

Education Scotland – Curriculum for Excellence – Health and Wellbeing. Principles and practice
http://www.google.co.uk/url?q=http://www.educationscotland.gov.uk/Images/health_wellbeing_principles_practice_tcm4-540091.doc&sa=U&ei=ZTI_UZSXDdGB7Qbcl4HQCg&ved=0CB4QFjAB&sig2=yj-BCcU3S7EamRj2YIpbDA&usg=AFQjCNEiyZ-m8fvrGgXeUx4PewUGy1avEA

Positive Approaches to Health in Forth Valley - Promoting Health & Wellbeing
http://www.nhsforthvalley.com/__documents/health-services/health-promotion/education/accreditation_clacks_final_may10.pdf

HandsOnScotland: How to help children to flourish - Mindfulness
http://www.handsonscotland.co.uk/flourishing_and_wellbeing_in_children_and_young_people/flourishing_topic_frameset.htm

Teaching mindfulness to children
http://www.mindfuleducation.org/mindfulnessforchildren.pdf