

## **A Brain Treat for the Holidays**

### **By: Dr. Linda Karges-Bone**

Can you imagine a more welcome holiday treat than one that might actually help to make children more alert during the learning process or more reflective during the creative process? How about a simple gift that could help parents curb the effects of stress during this busy season? Read on to discover a fun to make “Brain Treat” that doubles as a holiday craft for children and to find important information about how the brain works.

#### Brain Background

Cognitive science is the study of how the brain works during the teaching and learning process. Researchers now know that the limbic system is a critical part of the learning process. Though cognition or thinking occur in the pre-frontal cortex or gray matter, information must first filter through the limbic system, and that is where color, scent, and taste can help to play an important role in facilitating the learning process. Here’s how it works. The limbic system includes the amygdala and the hippocampus. The amygdala signals the brain to deal with stress. The hippocampus sends information into memory. We now know that certain colors, scents, and tastes can help to alleviate stress and facilitate memory. Though it is not clear exactly how this works, it is likely that:

- Colors and scents act like “Velcro” for information passing through the limbic system.
- Scents pair up with information to trigger memory
- Colors, scents, and tastes stimulate attention and give pleasure which make the brain “want” to remember the situation or information that accompanied the pleasurable experience

What’s more, it now seems that the hippocampus does not act alone in processing memory. The olfactory bulb, which is responsible for interpreting scent messages, is also a player in sealing and sifting memories! So, it makes sense to use scents in learning!

#### Which Colors, Tastes, and Scents?

In my book *Beyond Hands On: Techniques for Using Color, Scent, Taste, Touch, and Music to Enhance Learning*, (Teaching and Learning Co. 1996), I provide charts that show the relationships between specific stimuli and responses.

Here are some examples:

- Green evokes a creative response
- Red makes you alert
- The scent of peppermint or wintergreen alleviate pain and tension and bring about alertness

- The scent and taste of cinnamon or ginger bring about a creative response and feelings of well-being
- Scents and tastes with a decidedly “ginger” or spice flavor evoke creativity and warmth. Butterscotch or root beer would be a good fit.

So, how do you pull this all together in a fun holiday craft?

### The Holiday Craft

You will need:

- Clean, recycled large jelly or canning jars with lids
- Bags of wrapped mints, cinnamon disks, root beer barrels, and butterscotch disks
- Decorating materials for the lids. Small scented pine cones and color calico “skirts” can be effective.
- Large labels on which to print the accompanying poem

### Directions

1. Layer clean glass jars with 2 inches of candy. It works best with a distinct layer of colors. For example:

Red and white mints, followed by butterscotch, followed by green and white mints, followed by root beer barrels.

2. Print out the poem on the self-sticking labels and apply to the front of each jar.

3. Decorate the lids with holiday ribbons, raffia, yarn, buttons, or even small pine cones with glitter. The scent of pine is a stress reducer!

4. Screw the lids onto the jars after the glue has dried.

### The Poem

Your labels will convey the brain-friendly message explaining why this is no ordinary jar of candy!

#### **A Holiday Brain Treat for You**

Peppermint and wintergreen  
Can soothe away where stress has been.  
Refreshing scents to calm the brain-  
And make you want to think again.

Smell the charm of ginger and spice.  
Your brain thinks this is very nice!


Cinnamon to ease the fray.  
Butterscotch to calm the day.

Colors like red to energize-  
Calming green to fertilize.  
A mind too tired from holiday stress  
Needs nature's palette to give it rest.

Warm colors and scents lend creative spark  
A light for the mind in the wintery dark.  
So reach in your hand and pull out a treat-  
Minty or spicy, tangy or sweet.

**In the limbic system we find the amygdala and hippocampus**

- The hippocampus is associated with memory
- The amygdala is a walnut sized structure that is activated when the brain senses danger, fear, or attack

A stylized illustration of a human head profile in black and white, with several white gears of different sizes inside, representing the brain's internal processes. The head is set against a blue background with a dark blue vertical stripe.

Brain Information to Use in Teaching  
From Dr. Linda Karges-Bone's Workshop  
Brain 101  
record more than 86 billion bits of information each day!

## The Brain is Infinitely Complex

- The brain has 30 billion working parts
- The brain doubles the number of neurons between the ages of 0 and 18
- Its nerve impulses travel 170 mph
- It can record more than 86 billion bits of information each day!



### Conclusion

Teaching children how to manage stress so that their brains can work more effectively is a lesson that will improve their physical and mental well being. A simple craft and poem can effect gray matter and other things that matter in children's lives.