1-1-2016

4.0.E Posters Thermal Sensation

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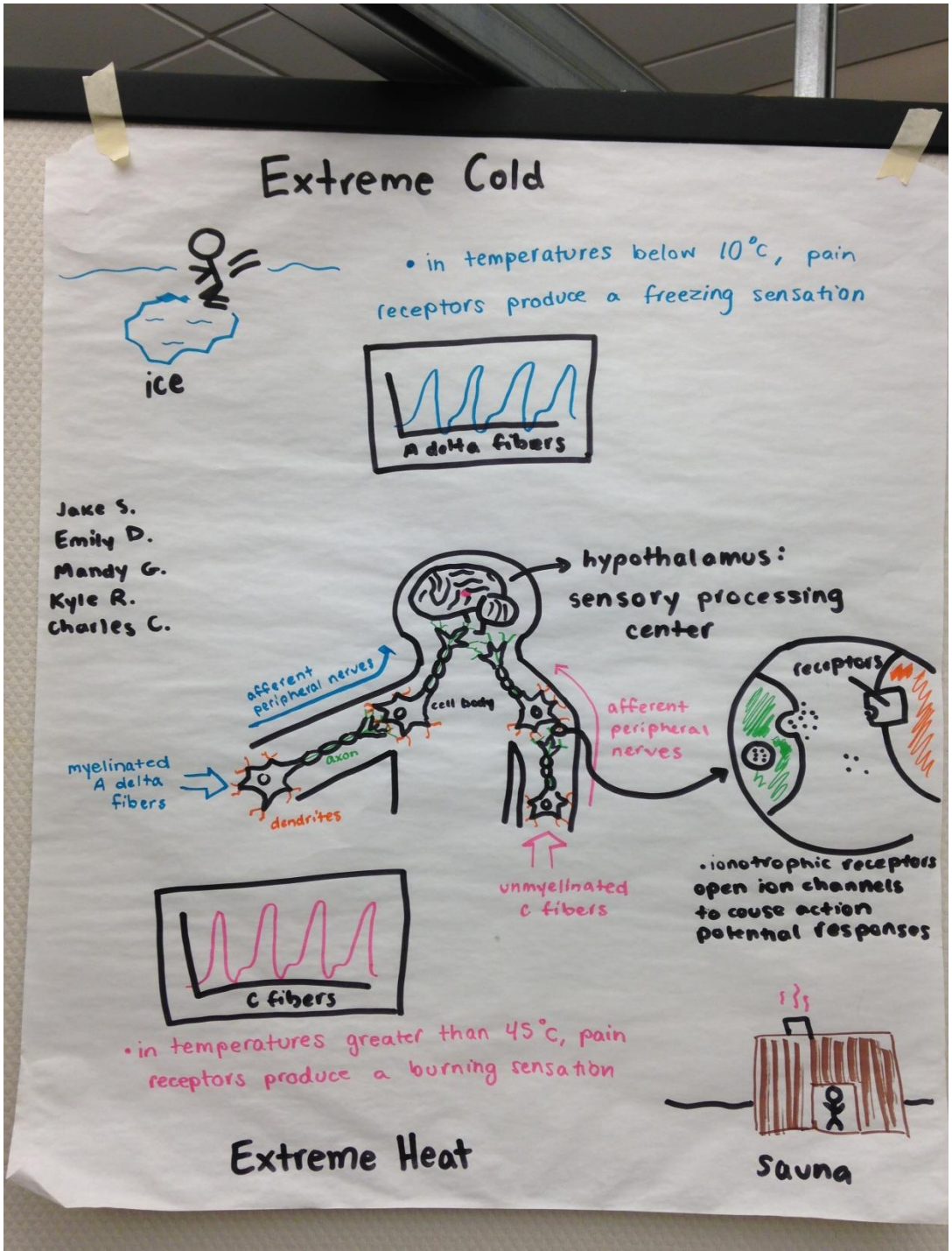
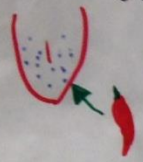
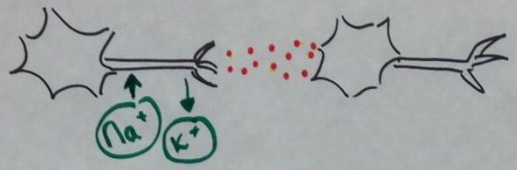


How the Body Responds to Capsaicin

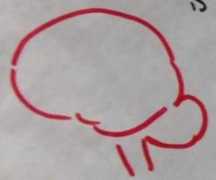
1. Thermoreceptors on the tongue respond to capsaicin in chilli pepper



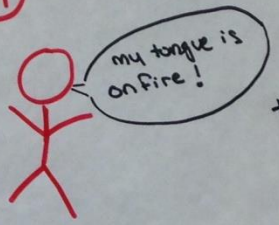
2. Message is transported to CNS via action potentials along sensory neurons.



3. Hypothalamus receives sensory information and interprets it as heat. Message to respond is relayed back to peripheral neurons.



4. You recognize the sensation as heat. You may sweat because your body is tricked into thinking it is too hot.



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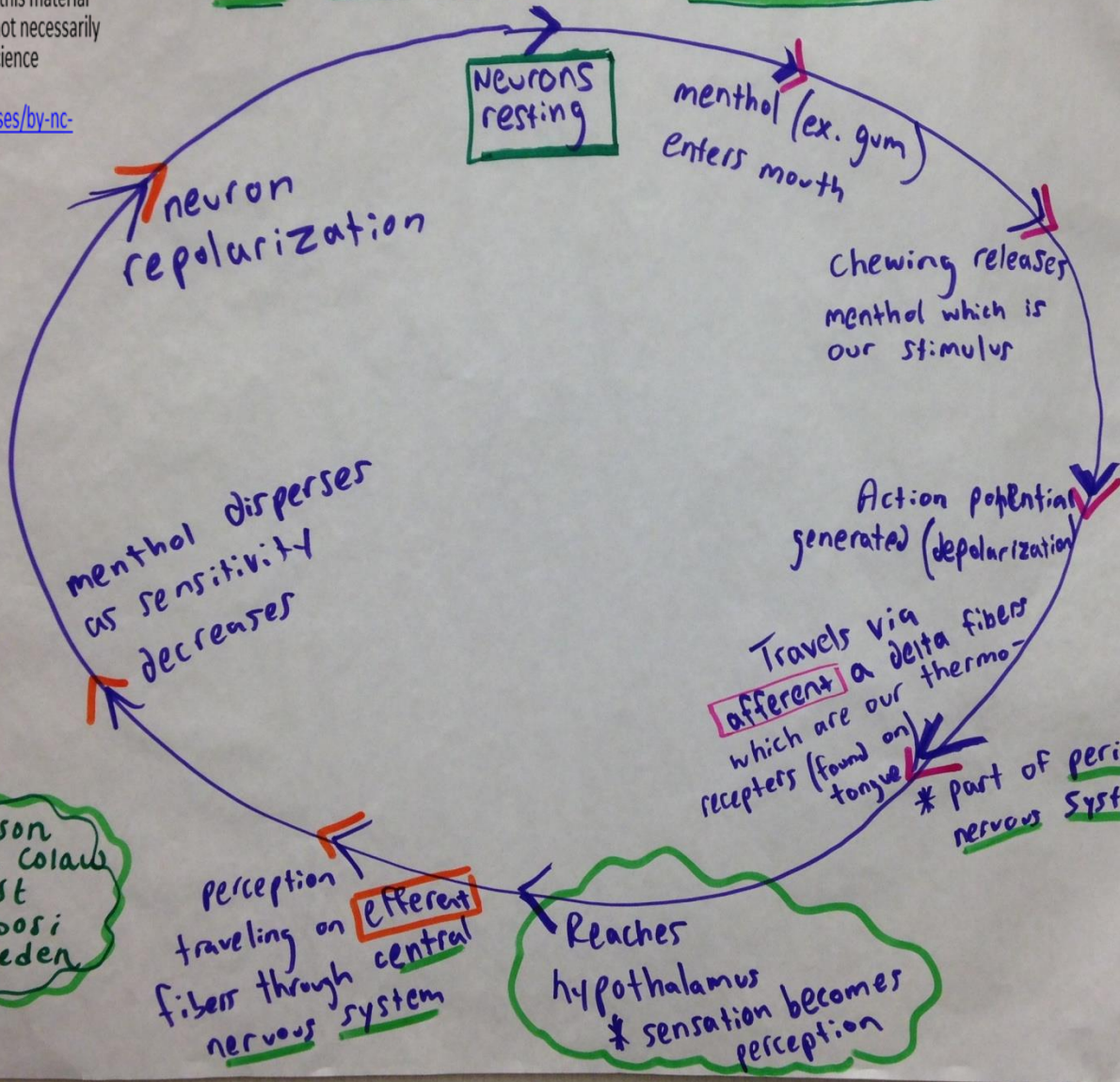
The Effect of Menthol



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Ruffini's end organ

(Heat)

- Thermoreceptors increase their action potential discharge which causes unmyelinated c-fibers to fire
- This is in order to protect the skin and tissues, however receptors still cause you to feel really hot.
- Thermoreceptors decrease in warm receptor discharge rate and thinly myelinated A delta fibers fire faster in order to protect the skin and tissues.

End-bulb of Krause

(Cold)