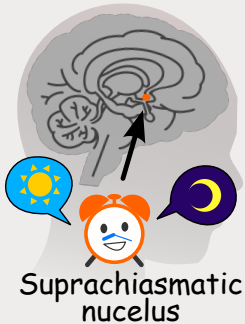


## Welcome to the BrainReach North Newsletter!

We are a group of neuroscience graduate students from the Integrated Program in Neuroscience at McGill University, Université de Montréal, Concordia University and UQAM, who volunteer to make online neuroscience lessons, activities, and resources to inspire the next generation of scientists to come. We put together this newsletter to share more about what we offer to you and your students.

## The Clock in our Brain

In November, we turn the clock back, because the Daylight Savings Time ends. Do you feel tired, sleepy, or just weird when we change the clock? If you do, then it probably means the clock inside your brain, called the **suprachiasmatic** (sue-pra-kai-az-matic) **nucleus**, is working well. The suprachiasmatic nucleus is found in the middle, at the bottom of the brain.



When it gets dark at night, this nucleus sends a special signal (*melatonin*) to the rest of the brain and body. This makes you sleepy. When you see bright lights, like the morning sun, it stops the sleep signal. This makes you wake up. If you have a stable sleep cycle, the suprachiasmatic nucleus gets to be on beat, giving you a stable **circadian rhythm**. A circadian rhythm lets you wake up roughly at the same time every morning, even if the alarm is off.

When we change the clock, the suprachiasmatic nucleus has to adjust our circadian rhythm to the new time. This can make us feel off, because our internal clock is now off-beat.

What if you live in the arctic, with no nights in summer and no daylight in winter? Humans have artificial lights, but what about animals? Scientists found that arctic reindeer do not have a circadian rhythm. When do they sleep? Instead of sleeping for hours at night, these reindeers take many short naps.



## Free Posters and Postcards!



What are brains made of? How do neurons communicate? How does my brain pay attention?

We have cool and colourful posters and postcards designed by our volunteers to help teach everyday neuroscience knowledge! And we are mailing them out for free! If you would like to receive posters or postcards for your classroom, please email us at [brainreachnorth@gmail.com](mailto:brainreachnorth@gmail.com)

*Posting is currently limited to Quebec. However, we may be able to mail materials to other locations in Canada upon request.*

## Contact Us

Our mission is to provide fun, interactive, neuroscience-based learning materials for teachers and students in remote areas who wish to enrich their science education and teaching. We want to accomplish these goals with your help, send us an email at [brainreachnorth@gmail.com](mailto:brainreachnorth@gmail.com) for feedback, inquiries, and suggestions, or visit our website: <http://www.brainreachnorth.ca>