Beyond Earth Exploring space – without leaving the ground

Humans have wondered at the stars ever since our ancestors first turned their eyes toward the night sky. Advances in navigation, time-keeping, math, and physics have been based on years of keen observations by stargazers from many cultures. As one of the oldest sciences, astronomy raises fundamental questions about our place in the universe—and inspires our imagination about worlds beyond our own.

[63 words]

Gravity Waves A new wrinkle in space study

Gravity waves have given scientists a whole new way to study the universe, beyond light and radiation. Although Einstein predicted gravity waves more than a century ago, we couldn't confirm their existence until recently. In 2016, one of the most sensitive scientific instrument ever built finally detected these ripples in space-time, caused by the collision of two ancient, massive black holes. [61 words]

Nature, Preserved Discover the beauty of C.R. Percival's microscope slides

C.R. Percival spent his life capturing the beauty of nature so others could study it. Beginning in London around 1900, Percival built a business making and selling microscope slides for scientists to examine, and he continued to do so after he moved to Toronto in 1914. What examples of nature's splendor do you see in the specimens displayed here? [59 words]

Microscopy Today To the infinitesimal...and beyond!

As we continue to explore ever tinier worlds around us, technology offers new views and new ways to see. Computers and imaging tools allow artists and scientists to look at living cells from different perspectives, create 3D scans, and interact at the smallest scales. What will we learn as science reveals new unseen realms of the very small?

[58 words]

The Weight of Our Stuff

In the wake of the Second World War, Canadians began to break free from the wartime mentality of careful budgeting and "making do" – embracing instead the widespread buy-now-pay-later mode of consumption we know today. In the process, consumerism came to influence nearly every aspect of our lives, often in subtle ways. Advertising, for example, has come to shape our understanding of our own wants and needs, while the culture of consumption exerts an increasingly powerful environmental impact.

[77 words]

Birth of the Cool – Seven Decades of Fridge Design

The basic process of refrigeration – compression, condensation, and expansion – hasn't changed much since the 1940s. So appliance companies have instead focused their attention on creating and marketing innovative features and designs. Chief among these innovations has been increased size. When selling a new fridge, bigger is almost always better. [49 words]

Coming Clean

In the 1950s, the automatic washing machine offered a glamorous new way to clean clothes. Unlike the traditional wringer machine that required constant attention, the automatic washer was "set-it-and-forget-it." Yet, many Canadian women resisted this new technology. For some, the wringer washer represented tradition – it was how laundry was meant to be done. For others, it would have meant replacing a perfectly good machine that was already in their home. *[70 words]*

Coffee Talk

Coffee may be a constant in life, but coffeemakers have changed a lot. New materials and technologies sparked a shift from percolator to automatic drip to single serve. Consumer demand for more attractive appliances triggered a wave of new designs. Changing social dynamics around coffee-drinking continue to influence how we make and serve our favorite hot beverage. [58 words]

Sniffing Out Sickness Diagnosing through smell and taste

To make the right diagnosis, your doctor must follow his or her nose. A doctor's first clues about an illness often come from sniffing a patient's breath, urine, or other bodily fluids. In the old days, doctors would *taste* the urine too—but today we get all the info we need from lab tests instead of taste tests. [58 words]

Learning to Listen Good listening makes for a sound diagnosis

Lub-dub, lub-dub, lub-dub... That's the sound of a healthy beating heart—one of the many sounds your body makes. Every beat, burp, creak, and croak offers a clue about what's going on inside, so your doctor listens carefully—to your body *and* your words. And with the right tools and training, he or she makes sense of your body's symphony of sounds. [62 words]

The Five Sense Solution Using all the senses to make sense of it all

You tell your doctor of lot without saying a word. Your body speaks volumes—through the sounds it makes, the odors it emits, the way your skin looks and feels. Doctors have long known that they must listen, look, touch, smell—and in the old days even *taste*—to make a diagnosis. As technology evolves, they're even finding new ways to use their senses. [64 words]

It's In the Bag These tools make your doctor's senses extra-sensory

Like a carpenter's toolbox or accountant's briefcase, the doctor's bag comes along whenever a physician hits the road. The tools inside are like an extension of the senses, allowing the doctor to probe just a little further. Some instruments allow the physician to hear a little better or see a little clearer. Often they're simple tools, but their power can be great.

[62 words]

Modeling Medicine Sometimes dummies make the best teachers

What does a liver feel like? Where is the pancreas? What's the shape of a normal skull? Often, the best way for a doctor to learn these things is through the sense of touch. That's where models and other touchable tools come in handy. By practicing and learning on hands-on replicas, doctors become experts by the time they get to the real thing.

[63 words]

Body Shop

Let wearable technology help you get the most from your body. Heal faster, live healthier, customize your look and physique—it can all be done with the help of these intimate wearables. Discover what's possible when technology and the human body work together in harmony. [45 words]

Ocular Prostheses Looking good, feeling good

The ocular prosthesis—or glass eye, as it's known—is no mere medical tool, it's a modern masterpiece! Each eye is custom fitted and custom designed—right down to the finely detailed blood vessels. But glass eyes aren't just for looks. While they don't provide sight, ocular implants help keep eye sockets healthy, clean, and free of foreign materials. [59 words]

Suit Yourself

You work hard – and you need the right kind of gear to get the job done. Whether in a factory, a laboratory, a construction site, or on the ocean floor, wearable technology lets you do your job safely and effectively. From footwear to headgear, this tech has got you covered. [50 words]

Smart Parka Pocket Protection

You want technology at your fingertips and ready to go whatever the weather. With its custom-sized pockets, the all-in-one Smart Parka will keep your devices warm, dry, and working at optimum capacity all winter long. With so many high-tech features, it's no wonder the Smart Parka became the highest-grossing Canadian Kickstarter campaign of all time. *[55 words]*

Hexoskin Biometric Clothing A Smarter Skin

Train better – in the clothing that monitors your performance. With sensors that measure everything from heart beat to breathing rate to step count, the Hexoskin shirt collects all the data to track your training in real time. Whether you're a professional athlete or just getting in shape, the Hexoskin allows you gauge performance over time or develop new training routines for improved results. [62 words]