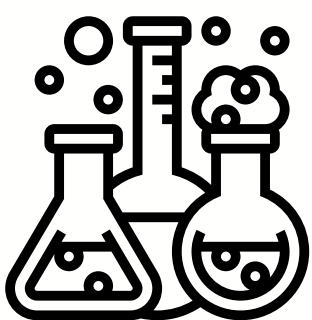


2025 S.E.T. DAY ACTIVITIES



ANALYZING YOUR MOVES

It is a fun, hands-on activity to discover the science behind physical performance! Students will discover how the body moves efficiently and how it responds to different types of exercise.



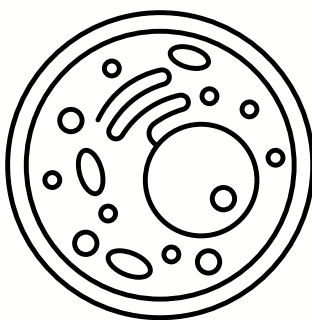
BEHIND THE SCIENCE LAB TOUR

Students will be walking around the lab while the graduate students discuss the various tools and techniques utilized.



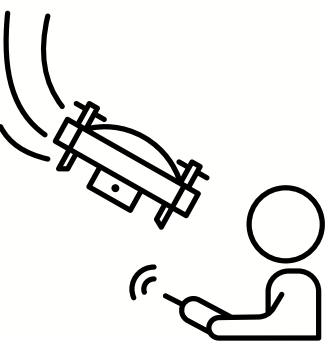
BUILDINGS MADE FROM FUNGI & KOMBUCHA

What sounds like science fiction could soon be a reality, as our researchers in the University of Manitoba are working on ways to turn fungi and Kombucha into building materials.



CELL DETECTIVES

Students will observe various plant cells under a microscope.



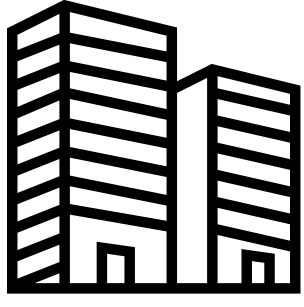
DRONES, WATER, AND ICE

Students will learn how remotely piloted aircraft equipped with high resolution cameras, LiDAR, and thermal imaging cameras are used to support hydraulic engineering and river ice studies. They will also observe the impact of ice jams on rivers through presentation slides and will create a simulated ice jam in the laboratory.

2025 S.E.T. DAY ACTIVITIES

EXPLORING 3D SCANNING

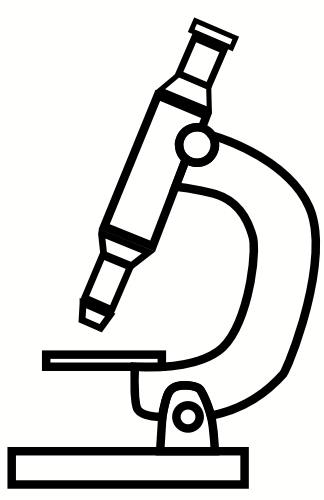
IN ARCHITECTURAL AND INTERIOR DESIGN



students will be introduced to 3D scanning technology and its role in architectural and interior design. Students will first learn how to use their smartphones to capture 3D scans, then watch a live demo of the advanced Leica BLK 360 scanner in action. The session will wrap up with examples of how 3D scanning is transforming design processes. By the end, students will understand how this technology is shaping the future of design.


EXPLORING THE MICROSCOPIC WORLD

OF MATERIALS



Come to the world-class Manitoba Institute for Materials and discover details that are beyond the resolution of our eyes or even a normal microscope. Just like materials researchers from the university and industry, you will look at everyday materials: natural and artificial fibers, alloys, plant stems, crystals and a few surprise samples. We will show you how samples are prepared, and you will have an opportunity to “drive” our electron microscopes as we look into the world of the very very small.

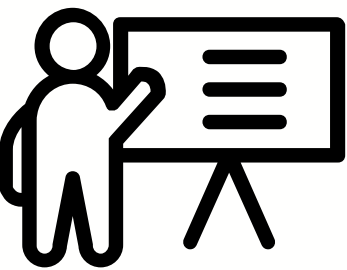
FLOATING TOWERS



Do you have what it takes to tackle the ultimate engineering challenge? In this competition, your team will design and build a floating tower that’s both tall and strong. But there’s a twist—your structure must hold as many marbles as possible without toppling or sinking. Let the challenge begin!

INNOVATIVE TALKS:

FEATURING IDEA START & BAM



IDEA Start is a UM's hub for entrepreneurship offering mentorship, technology, and collaboration to turn innovative ideas into successful ventures.

The Bioscience Association Manitoba is a not-for-profit association supporting Manitoba's bioscience sector by driving innovation, workforce development, and global engagement.

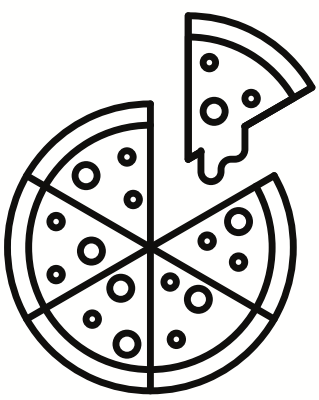
2025 S.E.T. DAY ACTIVITIES



OZOBOTS CODING WORKSHOP

Students will learn a basic coding activity with Ozobots.

PIZZA 101



Come learn about the science involved in making one of Canada's favourite foods - Pizza, and the many job opportunities available in the food and human nutritional sciences! During this hands-on activity, students will learn about the sciences involved in making pizza dough and cheese, and also gain experience in the nutritional and sensory analysis of pizza. During the session, students will also get practical experience in making pizza from scratch!

PLANETARIUM VISIT:

GALAXIES & HORIZONS

Students will partake in a planetarium showing, in which they will observe various constellations, planets, and learn about time zones

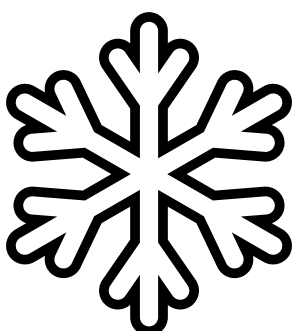
RAYON REVOLUTION:

CRAFTING SYNTHETIC SILK

Students will learn to create synthetic silk via the cuprammonium method.

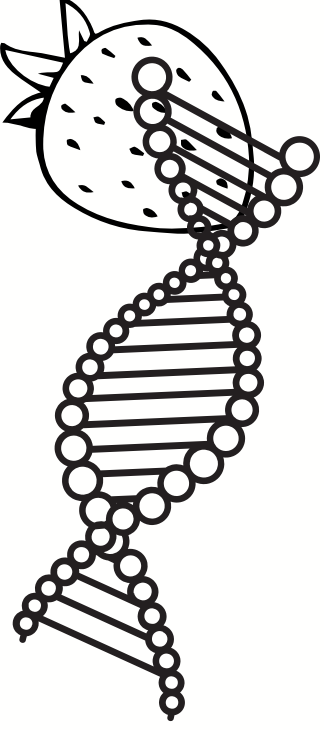
"SERF"ING ON SEA ICE

The University of Manitoba has a piece of the Arctic Ocean on campus! Come to the Sea-ice Environmental Research Facility (SERF) to learn everything about sea ice and the Arctic Ocean, and how you can do to help with climate change adaptation, mitigation, and resilience building.



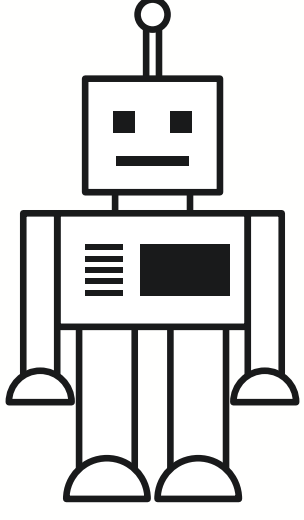
2025 S.E.T. DAY ACTIVITIES

STRAWBERRY DNA: UNLOCKING THE CODE OF LIFE




Get ready to dive into the world of Plant Biotechnology with an awesome hands-on experiment! You'll be extracting DNA from strawberries. First, you'll mash up the strawberries, mix in a solution, and filter it all to reveal the DNA as cool, visible strands. This activity will show you how everyday materials can unlock the mysteries of science in a fun and easy way. Plus, if we've got enough time, we can take the DNA to the next level by running it through a gel to really see it up close.

UM ROBOTICS TEAM (UMRT)



The University of Manitoba Robotics Team (UMRT) will showcase their rover "the Prairie Pioneer", and provide a behind-the-scenes look of the team's competition, the Canadian International Rover Challenge 2025. Students will get the chance to experience what it's like to be on the team, go through the engineering design process and collaborate with each other to build a sumobot! Join us to see the future of robotics in action and meet the talented students behind these cutting-edge creations!

VIRTUAL REALITY ACTIVITY: NURSE FOR A DAY



Students will get the chance to try out a virtual reality (VR) simulation used by University of Manitoba nursing students to practice caring for virtual patients. Wearing a VR headset, they'll go through a healthcare scenario that helps build skills in assessment, communication, and decision-making - all in a safe, controlled environment. It's an innovative way to see how nursing students practice without using real patients.

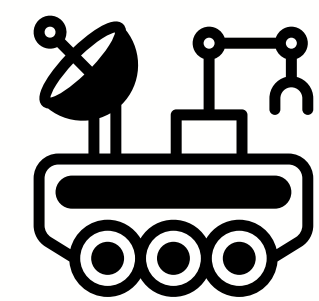
2025 S.E.T. DAY ACTIVITIES



WALLACE MUSEUM TOUR:

FOSSIL FRENZY

Students will tour the Wallace Museum, and learn various cretaceous fossils and rocks



WHEELS FOR MARS

As humanity's exploration expands, robotic rovers are increasingly used to navigate varied Martian terrain. Due to the delay in radio signals to Mars, future rovers must be self-reliant. Students will design and test rover wheel treads using different materials and configurations in a sandbox with diverse terrains to determine their effectiveness.