



Montana FIRST Tournament & Antikythera Mechanism – January 26, 2016

This week's Looney Challenge celebrates the Montana FIRST Tournament and the Antikythera Mechanism.

The Montana FIRST Tournament is an annual competition held at Montana State University-Bozeman, February 5-6th, 2016. The Montana FIRST Tournament holds two competitions, the FIRST Tech Challenge (FTC), grades 9-12, and the *FIRST* LEGO® League (FLL) for grades 4-8. At this year's competition there will be 41 FTC teams competing and 58 FLL teams.

Montana has a successful and competitive competition that has produced world champions. A team from Ronan won the championship in 2011 and the Sun River Robotics Team, made up of students from Sun River, Great Falls and Fairfield, won in 2015. In addition to winning the world championship last year, the Sun River team also broke the world record four times before reaching the championships in St. Louis.

Let's Get Started

Please select one of the two options.



Option 1 (5 points): We would like to know if your school has a team or has students participating on a team (we understand that some teams are clubs organized outside the school system). All you have to do is:

1. Tell us the name(s) of the team(s) from your school or community.
2. Send us a photograph of the team(s) so that we can post to our blog.
3. What competition will they compete in at the 2016 Montana FIRST Tournament?
4. What language are the students using to program their robot?
5. If you are doing the Looney Challenge before the competition, please have the students tell you what they are excited about, have the students been able to design the robots to do what they want it to do? What have been some of the challenges when working on the robot to meet the tournament rules? How have they solved problems?
6. If the competition has already occurred, please tell us the results and what the students learned. Did the robot behave the way they had hoped? How did they troubleshoot? What went well and what didn't?

That's it – an easy 5 points! Also, please let us know if we have permission to post the photograph of the team(s) to our blog.

Option 2 (7 points): We understand that not every school/community has robotics team and decided to provide an activity that provides students with the history of the computer. We feel that it is important to understand how computers have evolved and how computational thinking impacted everything we do today. For this Challenge your students will explore and learn about the *Antikythera Mechanism*.

1. Ask your students to Google the *Antikythera Mechanism*. There are many articles and news stories about the ancient computer, including a NOVA special on PBS, and videos, including the following video, *Antikythera Mechanism – 2D*, <https://www.youtube.com/watch?v=UpLcnAlpVRA>.
2. Ask your students to describe three facts about the Antikythera.
3. Why is the Antikythera significant?
4. How was the Antikythera used?
5. Why is the Antikythera a computer?



If you happen to visit Bozeman, please visit the American Computer and Robotics Museum, www.compustory.com. The museum has one of seven original replicas of the Antikythera mechanism on exhibit. Please see the photographs:

How to earn points:

- 1) If you haven't registered your class, please go to cs.montana.edu/looney-challenge and click on the "Register for Looney Challenges" link.
- 2) Discuss with your class the difficulty of the activity. What did they learn? How difficult was the activity? Do they understand the concept?
- 3) Briefly, in a couple of sentences, describe in your email what happened during the activity? Did your students understand the concept(s)? Email your description to looneychallenges@gmail.com.
- 4) If you want to attach an example, photographs of students working, or video of student's outcomes, please send them as an attachment.
- 5) We will send you a confirmation and provide you your point total for the activity and your total points for Looney Challenges.

For questions, please contact Sharlyn Izurieta, 994-4794 or send an email to looneychallenges@gmail.com

Deadline is June 30, 2015.