

Live Session Summary

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Summary

This week's live session was focused around our solar system and 21st century cosmology. To start the session, Dr. Rodriguez went over the three theories on how our moon is thought to have been created. Those three theories are: The Collision-Ejection Theory, The Co-Formation Theory, and The Capture Theory. Although these are three well known theories, it was discussed that the Collision-Ejection Theory potentially makes the most sense since the Earth and our moon are made up of the same material. This would mean that a chunk of the Earth was ejected out and created, what we know now, as our moon.

Throughout the session, Dr. Rodriguez demonstrated a few different activities you can do with your students that relate to our solar system and 21st century cosmology. The first one that he demonstrated was an activity that helped students, and adults as he mentioned, clear up any misconceptions they may have about the ratio of size between the Earth and the moon. This activity has the students blow up balloons that they think demonstrate the difference in size between the Earth and the moon. They are then supposed to wrap string around the circumference of the Earth and then see how many times it goes around the moon. The correct length would be that the Earth's circumference should wrap around the moon 4 times, a fact that most people do not know. There is a similar activity to teach them how far away the Earth and the moon are from each other.

Dr. Rodriguez transitioned into 21st century cosmology and discussed how light bends around black holes gravitationally. He discussed a project that can be done involving Jell-o, a laser, and dropping "black holes" in to see the light bend around them. Dr. Rodriguez also demonstrated an activity where students have to prove that water is in one of the bottles with the

beads and not the other. All of the activities that were presented are thought-provoking yet still fun for students to do. I could see myself incorporating the Earth and the moon ratio one into my math classroom.

Questions

I have a few clarification questions just to make sure I am using the correct rubric for each assignment. Is the correct rubric for the assignment called “Lesson Implementation & Reflection” the one called “LP Rubric”? I know this might seem like an obvious question but I wanted to make sure before I follow the incorrect rubric. I wanted to clarify since in the description of the “Lesson Implementation & Reflection” in the syllabus, it does not say we need to write out the lesson plan, but just use one that is already a resource. If this is not the correct rubric, which one is, and which assignment does the “LP Rubric” go with?