Middle School Science: Astronomy

Why on Earth should we continue to explore outer space? What's out there? What's in space, which we cannot see? Our God created it all. In this course, we will study the history of astronomy, properties of our sun, structure of stars, the Milky Way Galaxy, the moon, and many other celestial bodies in our solar system. Observing the night sky and seeing the beautiful world God has created will be an amazing journey. Get ready to enjoy virtual labs, web quests, hands-on experiments, using our telescope and nighttime activities.

Grades: 5 - 8 Prerequisites: None

Day & Time of Class: Monday 1:00 – 2:30 Est

Semester: Fall (15 weeks) Instructor's Name: Anna Pollard

Instructor's Phone: 919-346-7006 please leave a message and I will return

your call within 24 hours

Textbook: eBook and all worksheets will be provided

Additional Supplies/Resources Needed:

- 1. headset, microphone, notebook, a device (such as a phone-nothing fancy) to take pictures of your experiments
- 2. Common household supplies such as (paperclip, scissors, soup can, water bottle, tack, rubber bands, glass jar, drinking straw, tinfoil, water, paper plate, cardboard, etc...)
- 3. Please purchase the Science First Galileo Telescope Teacher Demo Kit \$10.49, if you do NOT have a telescope. <u>Click here to purchase telescope kit</u>

Weekly Homework: Homework will be assigned at the end of each live class session and will be due before the next live class. Homework should take approximately 2 hours per week. HW will consist of ...

- 1. answering questions from the previous week's assignment
- 2. completing experiment/activities(s) & submitting lab notes & a picture
- 3. reading about the "new" topic that we will discuss in our next class

Homework Policy: The goal of homework is to reinforce and explore the concepts that were taught in class. This is a fun and active class, and you will need to keep up with assignments. Contact me if your assignments will be late. I will work with you.

Additional Policies: Students should conduct themselves appropriately with their speech and texts during our live class. Students who are unable to adhere to this type of conduct may be separated from the class or removed from the session.

Anticipated Weekly Course Schedule		
Week 1	History of astronomy, telescopes	
Week 2	Observational astronomy (Earth, Moon)	
Week 3	The sun	
Week 4	The seasons	
Week 5	The Milky Way	
Week 6	Inner planets	
Week 7	Outer planets	
Week 8	Stars & Stellar Objects	
Week 9	Small solar systems bodies (comets, asteroids. Meteors, etc.)	
Week 10	Constellations & the night sky	
Week 11	Supernova & Black Holes	
Week 12	Solar system bodies (asteroids, comets, meteors)	
Week13	Other Galaxies DSO (Deep space objects)	
Week 14	Dwarf planets & exoplanets	
Week 15	Astronomy and the future	

Evaluation:	
Weekly Questions	30 % of final grade
Weekly Experiments/Activities	30% of final grade
Tests	40% of final grade
Total	100%

Grading Scale:	
90 - 100	A
80 - 89	В
70 – 79	С
60 – 69	D
0 – 59	No effort: F