Class: Solar Energy Honors P 4 & P 5 Teacher Name: THORNTON

| Day | Objectives 1. planning the investigation 2. identifying limitations of the methods that were used and suggesting possible improvements 3. presenting reasoned explanations for phenomena, patterns and relationships that you have observed in your data 4. making reasoned judgments and reaching conclusions based on qualitative and quantitative information | Assignments (all work still posted on Dr. Thornton JERFSA): https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home?authuser=2 CHECK GOOGLE CLASSROOM FOR ASSIGNMENT DEADLINES | Due Date 9.89.12 |
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| Mon. | | CLASS: 1. Work on lit review, methods, Bibliography 2. Unit 2 Activities #13 _National Geographic Secrets of the Sun Video a. SUN VIDEO: https://www.youtube.com/watch?v=SLmWY_ycFUA b. WORKSHEET: https://docs.google.com/document/d/1GT4JPXSKEJY_hG5GJTeQG3UWYa5 Hb-2yUqQzK-ZeFIE/edit?usp=sharing HOMEWORK: 1. Make sure you complete lit review and Methods & Materials, and Bib and place in Greenhouse Effect & Solar Ovens 2. COMPLETE ANY CLASS WORK NOT FINISHED IN CLASS 3. REMEMBER TO BRING SOLAR OVENS TOMORROW | ALL HOME -WORK |
| Tues | | CLASS: SOLAR OVEN DAY!! HOMEWORK: | assigned in Google Classroom DUE |
| Wed | | CLASS: 1. Graphing of Solar Oven Data 2. Discussion HOMEWORK: • Perfect graph and place inside Google Doc entitled Greenhouse Effect & Solar Ovens • Make sure you complete Greenhouse Effect & Solar Ovens Lab so you can make an appointment if you have questions! | BEFORE CLASS |
| Thurs | Essential Questions (EQ): 1. What is the Scientific Method? 2. How do you discern appropriate sources? 3. How do you discern appropriate results? | CLASS: 1. Graphing of Solar Oven??? 2. CONCLUSION HOMEWORK: • Unit 2 Homework # 3, 4, 6, & 7 | |

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| Fri | 4. How can I do my own project? | CLASS: 1. Discuss Notes/THEMES for Independent Project 2. Unit 2 II: 11, & 12 (alternative #2) a. CLASS CODE FOR NEWSELA 5SKF62 IF DONE 3. Work on Solar Oven Lab a. Use Laboratory research Format Worksheet and Laboratory Research Format for help b. Also, ppts # 5 & 6 can help with Discussion and Conclusion c. REMEMBER YOU NEED A BIBLIOGRAPHY & CITE IN PARAGRAPH APA HOMEWORK: SLEEP! | |
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SC.912.L.17.20: Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following:

- Pose questions about the natural world, (Articulate the purpose of the investigation and identify the relevant scientific concepts).
- 2. Conduct systematic observations, (Write procedures that are clear and replicable. Identify observables and examine relationships between test (independent) variable and outcome (dependent) variable. Employ appropriate methods for accurate and consistent observations; conduct and record measurements at appropriate levels of precision. Follow safety guidelines).
- 3. Examine books and other sources of information to see what is already known,
- 4. Review what is known in light of empirical evidence, (Examine whether available empirical evidence can be interpreted in terms of existing knowledge and models, and if not, modify or develop new models).

SC.912.N.1.1:

- 5. Plan investigations, (Design and evaluate a scientific investigation).
- 6. Use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs), (Collect data or evidence in an organized way. Properly use instruments, equipment, and materials (e.g., scales, probeware, meter sticks, microscopes, computers) including set-up, calibration, technique, maintenance, and storage).
- 7. Pose answers, explanations, or descriptions of events, 8. Generate explanations that explicate or describe natural phenomena (inferences),
- 9. Use appropriate evidence and reasoning to justify these explanations to others,
- 10. Communicate results of scientific investigations, and
- 11. Evaluate the merits of the explanations produced by others.
- **SC.912.N.1.2:** Describe and explain what characterizes science and its methods.
- **SC.912.N.1.3:** Recognize that the strength or usefulness of a scientific claim is evaluated through scientific argumentation, which depends on critical and logical thinking, and the active consideration of alternative scientific explanations to explain the data presented.
- SC.912.N.1.4: Identify sources of information and assess their reliability according to the strict standards of scientific investigation.

SC.912.N.1.5: Describe and provide examples of how similar investigations conducted in many parts of the world result in the same outcome.

SC 912 N1.6.: Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.

SC.912.N.1.7: Recognize the role of creativity in constructing scientific questions, methods and explanations.

SC 912. N.2.1: Identify what is science, what clearly is not science, and what Identify what is scien superficially resembles science (but fails to meet the criteria for science).

SC.912.N.2.2: Identify which questions can be answered through science and which questions are outside the boundaries of scientific investigation, such as questions addressed by other ways of knowing, such as art, philosophy, and religion.

SC 912 N 23: Identify examples of pseudoscience (such as astrology, phrenology) in Society.

SC.912.N.2.4: Explain that scientific knowledge is both durable and robust and open to change. Scientific knowledge can change because it is often examined and re-examined by new investigations and scientific argumentation. Because of these frequent examinations, scientific knowledge becomes stronger, leading to its durability.

SC 912 N2.5: Describe instances in which scientists' varied backgrounds, talents, interests, and goals influence the inferences and thus the explanations that they make about observations of natural phenomena and describe that competing interpretations (explanations) of scientists are a strength of science as they are a source of new, testable ideas that have the potential to add new evidence to support one or another of the explanations.

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SC.912.N.3.1: Explain that a scientific theory is the culmination of many scientific investigations drawing together all the current evidence concerning a substantial range of phenomena; thus, a scientific theory represents the most powerful explanation scientists have to offer.

SC.912.N.3.5: Describe the function of models in science, and identify the wide range of models used in science.

SC.912.N.4.1: Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.

SC912.N.4.2: Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.