

EXPERIENCING SYNERGY IN SCIENCE

APPLIED SCIENCES

Designed For Students:

Grades K-3rd Ages 5-8

HELLO EDUCATOR!

Disney Youth Education Series is pleased to be able to provide you with these materials to gauge your students' progress as they prepare for and complete their Disney Y.E.S. experience.

To encourage creative thinking, open-mindedness, and generate excitement, we suggest that you use the Pre-Trip Coursework to help your students prepare for Experiencing Synergy in Science. Upon your return to school, you might find the Post-Trip Assessment useful to measure student learning.

These tools are sure to get your students moving in the right direction and help ensure a learning experience that is relevant, inspiring, and thought-provoking!

We look forward to hosting you at the Walt Disney World® Resort where iconic settings, imagination, and storytelling come together to create a unique learning environment and life-long memories. See you soon!



pre-trip coursework

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- 1. Make a set of flash cards. With a colored marker write the name of a color that is different from the marker color. Example: with a red marker, write the word "blue" on a card. Make at least 10 cards.
 - As you hold the cards, instruct students to SHOUT out the color of the writing on the card, not the word on the card.
 - Then place the students in a semi-circle and in spelling bee fashion ask each student to SHOUT out the color on the card. Those students who provide an incorrect response sit down. Play should be conducted in a rapid fashion. Play continues until 1 student can be proclaimed the winner.
 - Discuss the difficulty of saying the color verses the word. Why was it difficult? How does the brain process information received by the eye?
- 2. Students to bring a current, small, close-up, portrait style photograph of themselves to class in a closed envelope. Students may not reveal their photograph to any other students. Each photograph should be placed upside down on a bulletin board. Each photograph is labeled with a number.
 - Students will view the photographs at a distance of 2 feet and have 5 seconds per image to identify the person in the photograph.
 - After each student has attempted the task, reveal the correct identity of each person. Provide a prize for the student with the most correct answers.
 - Discuss how perception of an object is influenced by its position.
 - Discuss how the brain is trained to process information.



Dre-trip coursework

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3. Play Pirate Porthole!

- Materials:
 - \checkmark An eye patch, pirate themed, for each student
 - √ Toy coin tokens, pirate themed
 - √ Masking tape
 - √ String or yarn
 - \checkmark 2 sheets of heavy card stock to construct Pirate Porthole
- Construction Directions:
 - ✓ Construct the portholes from 2 pieces of heavy card stock. Cut a hole 6 inches in diameter in the center of each piece of card stock. Decorate portholes with a Pirate theme.
 - ✓ Use the string and tape to hang the Pirate Portholes from the ceiling several feet apart from one another. The distance from the ceiling should be within reach of the shortest student.
 - √ With the tape, make a line in front of each Pirate Porthole so that the porthole is within easy reach of each student.
- Activity Instructions:
 - ✓ Divide students into two teams. Teams to form a line in front of each Pirate Porthole.
 - ${\sf V}{\sf E}$ Each student to be provided with a Pirate coin token.
 - \checkmark Students to put on their Pirate eye patch.
 - √ In turn, each student steps up to the line and attempts to drop their token into the Pirate Porthole. Students MAY NOT touch any portion of the Pirate Porthole with their hands or token.
 - ✓ First team to successfully drop all of their tokens through their Pirate Porthole wins! Provide small prizes.
- · Students remove eye patches and repeat activity
- Discuss why it was easier to drop the tokens through the Pirate Porthole without an eye patch being worn



post-trip assessment

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At the conclusion of Experiencing Synergy in Science, have each student do the following:

- 1. Define the term synergy.
- 2. Demonstrate or illustrate an example of synergy.
- 3. Demonstrate how a 3D effect is created in a movie theater.
- 4. Articulate the role of imagination in developing ideas and innovations.