5E Lesson Planning

Cell Theory

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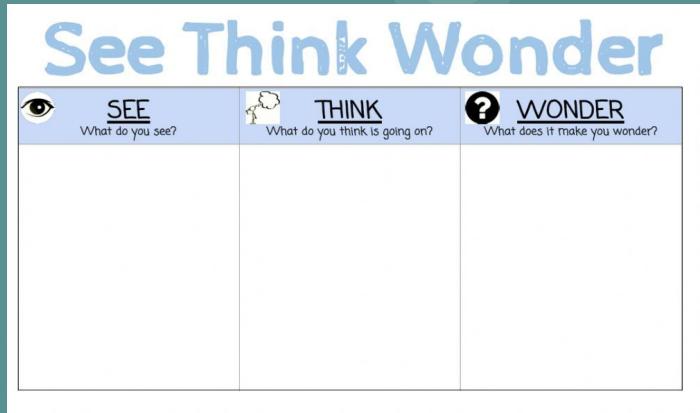
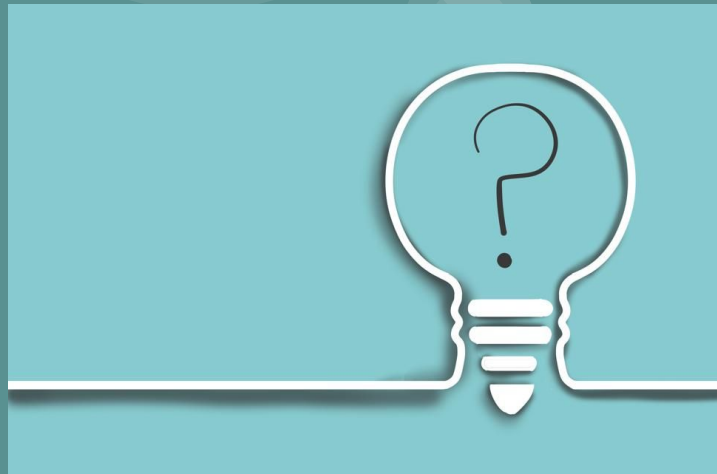
5E Lesson Plan

1. Engage
2. Explore
3. Explain
4. Elaborate/Extend
5. Evaluate

Engage: In this stage you want to create interest and generate curiosity in the topic of study; raise questions and elicit responses from students that will give you an idea of what they already know. This is also a good opportunity for you to identify misconceptions in students' understanding. During this stage students should be asking questions (Why did this happen? How can I find out?) Examples of engaging activities include the use of children's literature and discrepant events.



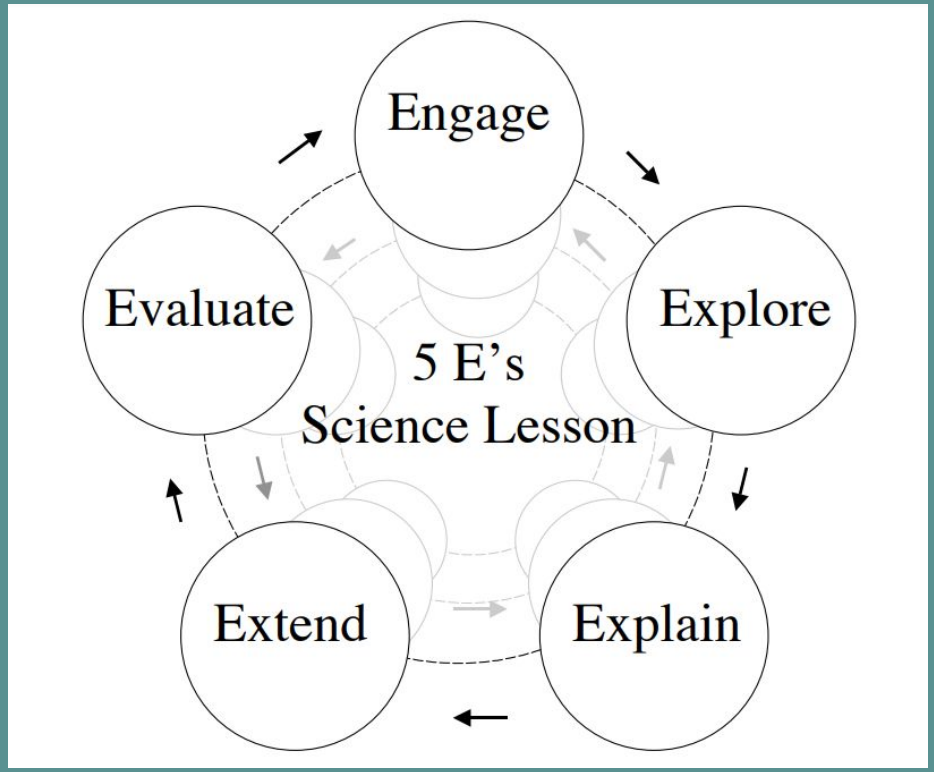
Explore: Students should be given the opportunities to work together without direct instruction from the teacher. You should act as a facilitator helping students to frame questions by asking questions and observing. Students should be puzzled. This is the opportunity for students to test predictions and hypotheses and/or form new ones, try alternatives and discuss them with peers, record observations and ideas and suspend judgment.



Explain: In this stage ask students to explain concepts in their own words, ask for evidence and clarification of their explanation, listen critically to one another's explanation and those of the teacher. Students should use observations and recordings in their explanations. At this stage you should provide definitions and explanations using students' previous experiences as a basis for this discussion.

Elaborate/Extend: In this stage students should apply concepts and skills in new (but similar) situations and use formal labels and definitions. Remind students of alternative explanations and to consider existing data and evidence as they explore new situations. Explore strategies apply here as well because students should be using the previous information to ask questions, propose solutions, make decisions, experiment, and record observations.

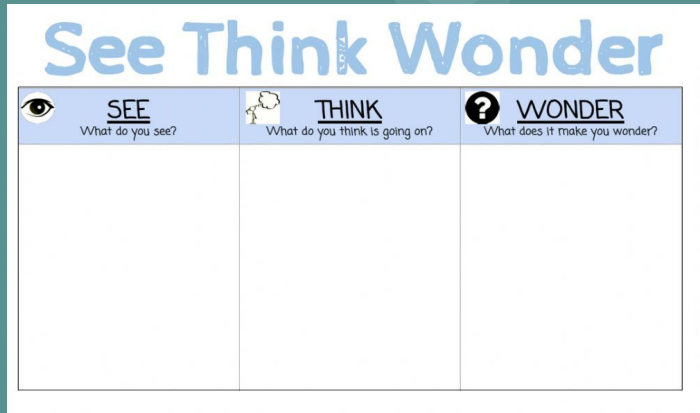
Evaluate:You should observe students' knowledge and/or skills, application of new concepts and a change in thinking. Students should assess their own learning. Ask open-ended questions and look for answers that use observation, evidence, and previously accepted explanations. Ask questions that would encourage future investigations.


Engage
Explore
Explain
Extend
Evaluate
5 E's
Science Lesson

Cell Theory

Engage:

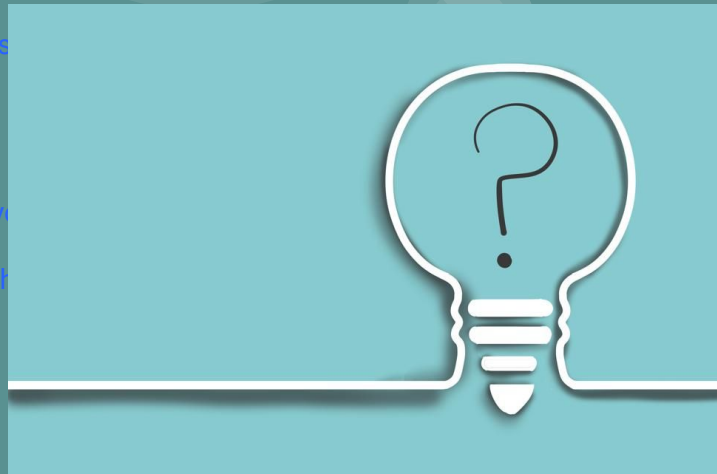
"Hook"


See Think Wonder
SEE
What do you see?
THINK
What do you think is going on?
WONDER
What does it make you wonder?

Explore:

Google Slide

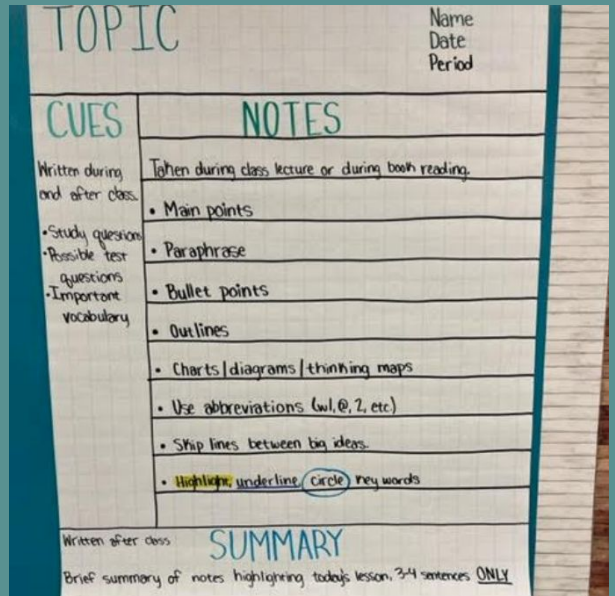
Webquest
Part A: https://www.youtube.com/watch?v=8IlzKri08kk
Pat B:
https://www.wisc-online.com/learn/natural-science/life-science/mby3204/eukaryotic-cells
sembling-the-cell
Part C: https://sciencemusicvideos.com/plant-cell-parts-and-functions/
Part D: https://www.youtube.com/watch?v=Pxujitlv8wc&t=116s
Part E:
https://www.khanacademy.org/science/biology/structure-of-a-cell/prokaryotic-and-eukary
-cells/a/prokaryotic-cells
Part F: https://biomanbio.com/HTML5GamesandLabs/Cellgames/cellexplorerpagehtml5.h



Explain:

[Cell Theory Interactive Digital Notebook]

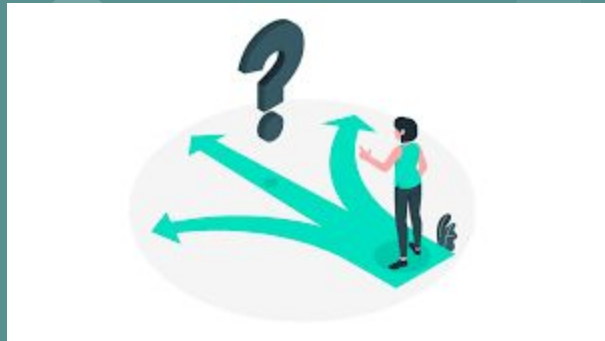
[Cornell Notes]



Elaborate/Extend:

Rubric CANVA

CT student project



Evaluate:

CT assessment

Crossword Puzzle

Cell Theory Assessment

Video will be inserted here

Pictures will be inserted here

Science Standards:

MS-LS1-1. Conduct an investigation to provide evidence that living things are made of cells, either one cell or many different numbers and types of cells.

MS-LS1-2. Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.

MS-LS1-3. Use argument support by evidence for how the body is a system of interacting subsystems composed of groups of cells.

Other Standards

Technology: Students understand the role of technology in research and experimentation. Students engage in technology in developing solutions for solving problems in real world situations. Students will use technology for innovation and creation.

-Canva

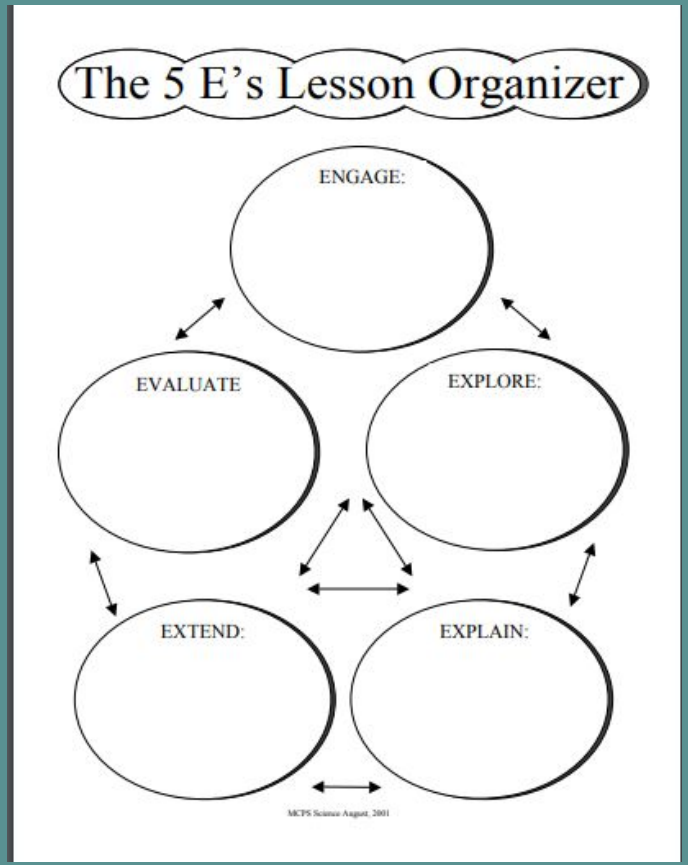
-Webquest

-Google Slides (notes)

-Edulastic

Accommodations

Cornell Notes
Interactive Notebook
Edulastic features
Graphic organizer


The 5 E's Lesson Organizer
ENGAGE:
EVALUATE
EXPLORE:
EXTEND:
EXPLAIN:
MCPS Science August, 2001

Questions:

5E lesson

Edulastic

Cornell Notes

CANVA

Interactive notebooks/graphic organizers

Webquest

Do Now:

1

2

3