

In groups of two or three please complete the following activities:

1. Select a Performance Expectation that you will teach early in the coming school year.

Grade Band/Level: HS PE: PS1-1

2. List the SEP, DCI and CCC that the performance expectation contains.

SEP: Developing & using models

DCI: PS1.A

CCC Patterns

3. List the connections to literacy, math and other DCI within the PE.

Literacy: RST.9-10.7

Math: HSN-Q.A.2

Other DCI: _____

4. Use the Framework, your KCAS, the accompanying appendices, and the intent protocol or dissection guide to reach a consensus with your partner(s) on the intent of the PE.

Thoughts on intent:

- subatomic structure
- basic e- configuration
- Periodic Table Organization (Families, valence e-s, oxidation #'s)
- Ionic/Covalent Bonding (Nomenclature)

5. Deconstruct the PE to list student friendly knowledge, reasoning/skill, and product targets.

Knowledge:

- I can identify + ^{model} ~~demonstrate~~ parts of atomic structure of specific atoms or ions using periodic table

Reasoning/Skills:

- I can use periodic table to predict e- config. and reactivity of various elements
- I can use periodic table to name and form binary compounds,
- I can use periodic table to predict if an element will form covalent or ionic bonds when it chemically reacts.

Products:

6. List any misconceptions or incomplete thinking students might have about the learning that must take place to complete the intent of the PE.

atoms are not flat + e-s are always moving

7. List some examples of formative questions you might use to gauge student comprehension and guide instruction.

Q Which of the following is an atom, ion or molecule

Q

Q

Q

Q

Q

8. Discuss with your partner(s) the design of an assessment task that could be used to elicit evidence of student mastery of the selected PE. Capture your thoughts about the assessment design in the space below. Then, use poster paper(s) to outline your assessment task and be ready to share with the group. Write the PE designation at the top of the poster papers. Remember to think about the evidence you wish to observe and discuss how that evidence could best be elicited. Must be 3D and congruent to PE.

9. Your lessons must reflect the student experiences/learning that the assessment task requires. Now, we can build a plan that incorporates the experiences/learning needed for the task. Discuss and sketch a brief outline of the sequence of instruction to be experienced in order to provide students with the necessary knowledge, reasoning, and skills to complete the assessment task.

Example:

First students will analyze maps of the Earth to recognize patterns of Earthquake locations then.....

- First students must understand atomic structure using atomic modeling activities such as drawings, homemade models & CPO Science Atomic Models game*
- POBIL - Electron Configuration activity ties in models*
- Naming & forming compounds*
- Periodic table activities to predict types of elements*

10. Reach consensus on a time period for instruction of the necessary learning. (i.e. 1 week, 10 days, etc.)

Time period for instruction: _____

11. Share out and Gallery Walk: Examine, photograph, and analyze the assessment tasks posted around the room. Take some ideas with you when you leave today.

In groups of two or three please complete the following activities:

1. Select a Performance Expectation that you will teach early in the coming school year.

Grade Band/Level: 10th ^{High School} (Biology) PE: HS-LS1-3

2. List the SEP, DCI and CCC that the performance expectation contains.

SEP: Planning + Carrying out investigations / Scientific Investigations / use a variety of methods
 DCI: Structure + function
 CCC: Stability + Change

3. List the connections to literacy, math and other DCI within the PE.

Literacy: WHST. 9-12.7 + WHST. 11-12.8
 Math: None
 Other DCI: None

4. Use the Framework, your KCAS, the accompanying appendices, and the intent protocol or dissection guide to reach a consensus with your partner(s) on the intent of the PE.

Thoughts on intent:

How systems maintain homeostasis in plants + animals. (Heart rate, stomata, root development)

5. Deconstruct the PE to list student friendly knowledge, reasoning/skill, and product targets.

Knowledge:

(07-LS-3) Within LS1.A - MS. Structure, form + info. processing
MS. LS1.A

Reasoning/Skills:

plan + carry out scientific investigations using logical thinking, precision, open-mindedness, objectivity, skepticism, replicability of results, + honest/ethical reporting of findings.

Products:

data from investigation that shows precision + accuracy + is indicative of a feedback (negative or positive) that can stabilize or destabilize a system.

~~tabs showing rates of change~~

6. List any misconceptions or incomplete thinking students might have about the learning that must take place to complete the intent of the PE.

- precision vs accuracy

- Homeostasis not only occurs @ cellular level but @ system level.

7. List some examples of formative questions you might use to gauge student comprehension and guide instruction.

Q What is homeostasis?

Q How might exercise connect to homeostasis?

Q Identify a way you could measure homeostasis.

Q

Q

Q

8. Discuss with your partner(s) the design of an assessment task that could be used to elicit evidence of student mastery of the selected PE. Capture your thoughts about the assessment design in the space below. Then, use poster paper(s) to outline your assessment task and be ready to share with the group. Write the PE designation at the top of the poster papers. Remember to think about the evidence you wish to observe and discuss how that evidence could best be elicited. Must be 3D and congruent to PE.

• design + conduct an enquiry-based lab based on homeostasis - Specifically heart rate

• guide them to come up variables on their own. (walking vs running, athletes vs non-athletes, incline vs non-incline, # of laps, amount of time)

9. Your lessons must reflect the student experiences/learning that the assessment task requires. Now, we can build a plan that incorporates the experiences/learning needed for the task. Discuss and sketch a brief outline of the sequence of instruction to be experienced in order to provide students with the necessary knowledge, reasoning, and skills to complete the assessment task.

Example:

First students will analyze maps of the Earth to recognize patterns of Earthquake locations then.....

- Students will need to understand the characteristics of life & living organisms.
(Review)
- Students will need to specifically need to understand the mechanism of homeostasis.
- Review (quick) over scientific investigation.
- Scaffolding pre-lab investigation.

10. Reach consensus on a time period for instruction of the necessary learning. (i.e. 1 week, 10 days, etc.)

Time period for instruction: 45 min periods (3 days)

11. Share out and Gallery Walk: Examine, photograph, and analyze the assessment tasks posted around the room. Take some ideas with you when you leave today.

In groups of two or three please complete the following activities:

1. Select a Performance Expectation that you will teach early in the coming school year.

Grade Band/Level: HS PE: HS-LS1-1

2. List the SEP, DCI and CCC that the performance expectation contains.

SEP: Construct explanation from variety of sources that nat'l world operates as independent

DCI: specialized cells, genetic info. in form of DNA, genes = proteins

CCC: Investigation of new system requires details of materials, components + connections

3. List the connections to literacy, math and other DCI within the PE.

Literacy: RST.11-12.1, WHST.9-12.2, WHST.9-12.9

Math: _____

Other DCI: ASH53A

4. Use the Framework, your KCAS, the accompanying appendices, and the intent protocol or dissection guide to reach a consensus with your partner(s) on the intent of the PE.

Thoughts on intent:

relationship of DNA to protein structure; protein structure to the essential functions of life

5. Deconstruct the PE to list student friendly knowledge, reasoning/skill, and product targets.

Knowledge:

Explain contrast specialized / stem cells; label components of DNA, what explain relationship between genes + DNA; relat: structure of genes to proteins

Reasoning/Skills:

- connect gene + DNA structure to assembly of proteins
- explain role of protein in cells/organisms

Products:

- transcribed / translated DNA (gene) sequences
- example of specialized cells

ge 7ki 7P

6. List any misconceptions or incomplete thinking students might have about the learning that must take place to complete the intent of the PE.

Are genes made of DNA or DNA made of genes? (Chromosomes)

7. List some examples of formative questions you might use to gauge student comprehension and guide instruction.

Q What is the relationship between genes + DNA?

Q What are proteins made of?

Q Why are proteins important to organisms?

Q How is DNA "read" by cells?

Q

Q

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- Transcribe + translate a gene (DNA sequence)
- Compare a.a. sequence of ^a protein ~~found~~ ^{the same} found in various species

LS4-4

- Model Nat'l Selection on Population of Teddy
Grahams
- Graph Class data
- ~~at~~ Write an explanation