Cellular reproduction- H/G Biology 3/21/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/21/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.** **Learning Target:** 1-I can draw and label the parts of a chromosome 2-I can explain why cells divide instead of getting bigger. **Success Criteria:** **1) I can correctly draw and label the parts of a chromosome** **2) I can explain why cells divide instead of getting bigger in 2-3 sentences** **Introduction/Connection:** - **Do now- discussion about HeLa handout that was given along with a reading on Friday 3/18** **DIRECT INSTRUCTION:** - **Cell division ppt with guided notes**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Whole group discussions throughout the powerpoint notes where guided with norms and expectations.** **INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION:** - **Do Animals Get Cancer activity where students get a choice between 2 handouts-each have to animals to research**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Exit ticket at the end of notes. Students label the parts of a chromosome and write 2-3 sentences on why cells divide instead of getting bigger.**

Cancer- H/G Biology 3/22/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/22/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 1: We are learning to recognize that normal cells will reproduce until they come in contact with other cells.
	Success Criteria: 1: I am successful when I can state a claim, provide evidence, and reasoning to explain that normal cells will reproduce until they come in contact with other cells.
	Introduction/Connection: - **Do now (formative assessment probe)**
	DIRECT INSTRUCTION: - **Cancer video clips** - **Cancer ppt**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Cancer video clips** - **Cancer activity**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Cancer activity**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Cancer formative assessment**

Mitosis part 1- H/G Biology 3/23/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/23/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 1-I can visually identify each phase of the cell cycle. 2-I can create and explain each phase of the cell cycle.
	Success Criteria: **1) I can correctly identify each phase of the cell cycle** **2) I can explain each phase of the cell cycle in 2-3 sentences.**
	Introduction/Connection: - **Do now/ pirate prep**
	DIRECT INSTRUCTION: - **Mitosis part 1 notes**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Cell cycle foldable**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Cell cycle foldable part 1** - **Vocab** - **Cell division assignment**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Exit ticket**

Mitosis part 2 - H/G Biology 3/24/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/24/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 1-I can visually identify each phase of the cell cycle. 2-I can create and explain each phase of the cell cycle.
	Success Criteria: **3) I can correctly identify each phase of the cell cycle** **4) I can explain each phase of the cell cycle in 2-3 sentences.**
	Introduction/Connection: - **Do now/ pirate prep**
	DIRECT INSTRUCTION: - **Mitosis part 2 notes**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Cell cycle foldable**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Cell cycle foldable part 2** - **Cell cycle and checkpoints** - **Cell cycle worksheet**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Exit ticket**

Meiosis - H/G Biology 3/25/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/25/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 1) I can recall that Mendel's law of independent assortment & segregation led to genetic variation. 2) I understand what types of cells meiosis produces.
	Success Criteria: **1) I can recall from memory that mendel's law of independent assortment & segregation lead to genetic variation** **2) I can explain what types of cells meiosis produces in 1-2 sentences**
	Introduction/Connection: - **Do now**
	DIRECT INSTRUCTION: - **Meiosis notes**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Trick or truth review**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Meiosis vs mitosis worksheet** - **Cell cycle foldable**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Phases of meiosis**

Mitosis & Meiosis - H/G Biology 3/28/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/28/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 3) I can recall that Mendel's law of independent assortment & segregation led to genetic variation. 4) I understand what types of cells meiosis produces.
	Success Criteria: **3) I can recall from memory that mendel's law of independent assortment & segregation lead to genetic variation** **4) I can explain what types of cells meiosis produces in 1-2 sentences**
	Introduction/Connection: - **Do now**
	DIRECT INSTRUCTION: - **Cell cycle foldable instructions to complete the last 4 phases of meiosis.**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Meiosis vs mitosis worksheet. Checking answers once students complete so they can use it as a means of studying.**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Meiosis vs mitosis worksheet** - **Cell cycle foldable**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Check worksheet for understanding of mitosis and meiosis phases**

Mitosis & Meiosis - H/G Biology 3/29/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman	
Course/ Subject: Honors/Gifted Biology	
Date of Instruction: 3/29/2022	
Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 5) I can recall that Mendel's law of independent assortment & segregation led to genetic variation. 6) I understand what types of cells meiosis produces.
	Success Criteria: **5) I can recall from memory that mendel's law of independent assortment & segregation lead to genetic variation** **6) I can explain what types of cells meiosis produces in 1-2 sentences**
	Introduction/Connection: - **Do now**
	DIRECT INSTRUCTION: - **Microviewer directions**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **Microviewer set up, what to do with each microviewer slide, where to put information.** - **Students will complete the microviewer handout**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **USA test prep to review students over past topics as well as cell division**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Check worksheet for understanding of mitosis and meiosis phases**

Mitosis & Meiosis - H/G Biology 3/30/22 Lesson Plans

Teacher : Ms. McElvaney & Mrs. Audrey Hardman

Course/ Subject: Honors/Gifted Biology

Date of Instruction: 3/30/2022

Opening (I Do) An engaging process for lesson introduction that is specifically planned to encourage equitable and purposeful student participation. Describe the instructional process that will be used to introduce the lesson. **TKES 1, 2, 3,4,5, 8,10**	**Standard/s:** **SB1: obtain, evaluate, and communicate information to analyze the nature of the relationships between structures and functions in living cells** **B. develop and use models to explain the role of cellular reproduction (including binary fission, mitosis, and meiosis) in maintaining genetic continuity.**
	Learning Target: 7) I can recall that Mendel's law of independent assortment & segregation led to genetic variation. 8) I understand what types of cells meiosis produces.
	Success Criteria: **7) I can recall from memory that mendel's law of independent assortment & segregation lead to genetic variation** **8) I can explain what types of cells meiosis produces in 1-2 sentences**
	Introduction/Connection: - **Do now**
	DIRECT INSTRUCTION: - **Cell division Test instructions**
Work Period (We Do, You Do) Students learn by doing/demonstrating learning expectations. Describe the instructional process that will be used to engage the students in the work period. **TKES 1, 2, 3, 4, 5, 7. 8,10**	**GUIDED PRACTICE:** - **USA test prep to review students over past topics as well as cell division**
	INDEPENDENT/COLLABORATIVE PRACTICE/DIFFERENTIATION: - **Cell division test** - **Vocabulary for the next unit**
Closing (We Check) Describe the instructional process that will be used to close the lesson and check for student understanding . **TKES : 1,2,3, 4,5,6,7,8**	**SUMMARIZE/CHECK FOR UNDERSTANDING:** - **Cell division test**