 Burbrella Learning Academy Curriculum Map

**2nd Semester**

**January 2025 - ELA**

| **Implementation** *Use this table to keep track of student learning - 9th-12th*  |
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| **Implementation - Learning Approaches****Nature:** * Choose a book or article that focuses on environmental themes, sustainability, or human impact on the natural world. Students can discuss the themes in the context of real-world environmental issues and propose solutions, either through creative projects or essays.

**Play:** * Students choose a character from the novel or short story they’re reading and role-play scenes from the text. They could improvise new dialogues or resolve conflicts in their own way, promoting understanding of character motivations.

**PBL:** * Students read a novel or series of short stories and work in groups to analyze themes, characters, and writing styles. They create a multimedia presentation (e.g., video, website, or slideshow) to explain their findings and share their interpretations with the class**.**

**SEL:** * After reading a chapter or scene, students create an empathy map for a character, identifying the character's feelings, thoughts, needs, and behaviors. This helps students gain a deeper understanding of the character's perspective and relate it to their own emotions.
 | ***Goals***  |
| ***Students will be able to use their learning to…**** Read and annotate at least two grade-level appropriate novels, essays, or articles with advanced vocabulary and themes.
* Identify themes, tone, and author’s intent in assigned readings.
* Compare and contrast texts (e.g., a novel and its movie adaptation, or two articles on the same topic with different viewpoints).
* Summarize main ideas and arguments from both fiction and nonfiction texts.
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| ***Making Meaning*** |
| **UNDERSTANDINGS*****Students will understand that…**** Recognize and analyze how authors organize information (e.g., cause and effect, problem and solution, chronological order).
* Discern the main ideas or themes in complex texts and trace their development throughout the text.
* Understand why an author wrote a text and how their perspective, bias, or background influences the content.
 | **ESSENTIAL QUESTIONS*** How do your instructional practices ensure students develop a deep conceptual understanding of the math topics being taught?
* How do you prioritize both procedural fluency and problem-solving skills in your teaching?
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| ***Acquisition***  |
| **KNOWLEDGE*****Students will know…*** | **SKILLS*****Students will be able to…*** |
|  |
| Vocabulary: 1. **Allusion** – A reference to another work of literature, person, or event.
2. **Allegory** – A narrative in which characters and events represent abstract ideas or moral qualities.
3. **Ambiguity** – A word, phrase, or statement that has multiple meanings or interpretations.
4. **Antagonist** – The character or force that opposes the protagonist, creating conflict in the story.
5. **Characterization** – The process by which an author develops characters and reveals their traits.
6. **Climax** – The turning point or most intense point in the plot of a story.
7. **Conflict** – The central struggle or problem in a story, often between the protagonist and antagonist.
8. **Denouement** – The final resolution or conclusion of the story where the plot threads are tied together.
9. **Dialogue** – The conversation between characters in a literary work.
10. **Foreshadowing** – A literary device where hints or clues are given about future events in the story.
11. **Flashback** – A scene set in a time earlier than the main story, providing background or context.
12. **Imagery** – Descriptive language that appeals to the senses, creating vivid pictures in the reader’s mind.
13. **Irony** – A contrast between what is expected and what actually happens (e.g., verbal irony, situational irony, dramatic irony).
14. **Metaphor** – A figure of speech in which one thing is described as another, often to make a comparison.
15. **Mood** – The emotional atmosphere created by the author in a work.
16. **Motif** – A recurring theme, symbol, or idea throughout a literary work.
17. **Narrative** – A story or account of events, either real or fictional.
18. **Protagonist** – The main character in a literary work, often facing challenges or conflicts.
19. **Point of View** – The perspective from which the story is told (e.g., first person, third person limited, third person omniscient).
20. **Symbolism** – The use of symbols to represent ideas or concepts beyond their literal meaning.
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Burbrella Learning Academy Curriculum Map

**2nd Semester**

**January 2025 - Math**

| **Implementation** *Use this table to keep track of student learning - 9th-12th* |
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| **Implementations on Learning Approaches****Nature:*** Students can work on projects such as designing a sustainable outdoor classroom, which would involve concepts of geometry (for creating layouts) and environmental science (considering eco-friendly materials and energy sources).

**Play:** * Introduce games like escape rooms or board games that incorporate mathematical problem-solving. For example, students could solve algebraic equations to unlock clues in an escape room or work in teams to strategize solutions.

**PBL:** * Organize students into small teams where they must collaborate to solve a real-world problem. For example, a project might involve designing a sustainable energy-efficient building, where students must apply algebra and geometry to calculate dimensions, energy needs, and cost projections.

**SEL:**.* Encourage students to reflect on their problem-solving processes, identify their strengths and areas for improvement, and set personal goals.
* After completing a PBL math project, ask students to write a reflection on the project process, identifying challenges they encountered and how they managed those challenges. Include prompts like “What part of this project felt difficult, and how did you overcome it?” or “What skills did you use in this project, and how can you apply them in the future?”
 | ***Goals***  |
| ***Students will be able to use their learning to…**** Solve multi-step problems using various strategies and approaches, demonstrating persistence and mathematical reasoning in tackling challenging problems.
* Clearly explain mathematical thinking and justify solutions using proper notation and terminology.
* Translate real-world situations into mathematical models and solve them effectively, understanding the context and meaning of the solution.
* Increase speed and accuracy in solving equations and performing operations such as factoring, expanding polynomials, and working with fractions

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| ***Making Meaning*** |
| **UNDERSTANDINGS*****Students will understand that…**** Apply the laws of exponents to simplify expressions.
* Add, subtract, and multiply polynomials.
* Begin understanding factoring as a process for simplifying expressions and solving equations.
* Use multiple strategies to solve problems, including trial and error, logical reasoning, and modeling.
* Persevere in solving complex, multi-step problems.
 | **ESSENTIAL QUESTIONS*** How do your instructional practices ensure students develop a deep conceptual understanding of the math topics being taught?
* How do you prioritize both procedural fluency and problem-solving skills in your teaching?
 |
| ***Acquisition***  |
| **KNOWLEDGE*****Students will know…**** Interpret the structure of expressions
* Write expressions in equivalent forms to solve problems
* Perform arithmetic operations on polynomials
* Understand the relationship between zeros and factors of polynomials
* Use polynomial identities to solve problems
* Rewrite rational expressions
 | **SKILLS*****Students will be able to…**** Make sense of problems and persevere in solving them.
* Reason abstractly and quantitatively.
* Construct viable arguments and critique the reasoning of others.
* Model with mathematics.
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| ***Vocabulary*** |
| Vocabulary: 1. **Variable** – A symbol (often a letter) used to represent an unknown value in an equation or expression.
2. **Constant** – A fixed value that does not change.
3. **Expression** – A combination of variables, numbers, and operations without an equality sign.
4. **Equation** – A mathematical statement that two expressions are equal, often involving variables.
5. **Inequality** – A mathematical sentence involving an inequality symbol (e.g., >, <, ≥, ≤).
6. **Coefficient** – A numerical or constant factor in front of a variable in an expression.
7. **Term** – A single mathematical object (e.g., a number, a variable, or the product of numbers and variables).
8. **Factor** – A number or expression that divides another number or expression evenly.
9. **Solution** – A value or set of values that satisfy an equation or inequality.
10. **Simplify** – To rewrite an expression in a simpler form without changing its value.
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