Advanced Academics Differentiation Record Form

As required by Virginia education legislation and our local plan, we share updates each quarter about how instruction was extended and differentiated for high-ability learners. At Oakridge, teachers and staff are committed to ensuring our students learn and grow. As students demonstrate readiness, we use resources and strategies to push their thinking beyond acquisition and fluency to generalization and adaptation. In quarter 1, we have implemented a range of resources and strategies to promote critical and creative thinking among our students. These initiatives provide them with challenging and rigorous content. We are dedicated to nurturing and encouraging our students' exceptional abilities. By offering differentiated learning experiences, we can help every child realize their full potential.

Our efforts to differentiate instruction include:

- Collaborative planning with the Advanced Academics Coach
- Implementation of Critical and Creative Thinking Strategies and Project Zero Thinking Routines
- Use of resources for rigor and curriculum designed for high-ability learners

In the report below, you'll find a summary of some of the resources and approaches we used to encourage critical and creative thinking, provide rigorous content, and extend learning goals.

Differentiation for 4th Grade Students in the 1st Quarter

Subject Area:	Resources for Rigor	Critical and Creative Thinking Strategies	Thinking Routines	Additional Extensions
Math	Hands-on Equations	Analogies Depth & Complexity Habits of Mind	See Think Wonder What Makes You Say That? Think, Pair, Share	3-Act Math Tasks Groundworks Exemplars

Description:

Hands On Equations provides students with a hands-on introduction to algebraic reasoning, with 26 lessons divided into three levels of complexity. Students use number cubes and pawns (which represent variables) to create concrete representations of problems, which they then solve algebraically. Students used the program in conjunction with a series of lessons related to mathematical properties. This quarter, students were introduced to foundational algebraic reasoning through the Hands-On Equations program. Students learned to represent and solve problems by creating concrete models using number cubes and pawns to stand in for unknown variables. Students may choose to work through additional levels independently during the math workshop. Analogies, depth and complexity prompts, and Habits of Mind are integrated into math instruction to promote higher-level thinking and problem-solving. Analogies are used to help students connect new concepts to familiar ideas, such as viewing place value as a system of "neighbors" or understanding input/output tables as "machines" that follow a rule. Depth and complexity icons guide students to analyze patterns, relationships, and rules when working with number operations, measurement, and line graphs. Habits of Mind are reinforced to encourage persistence, accuracy, and flexibility in mathematical reasoning. Harvard's Project Zero Thinking Routines such as See, Think, Wonder, What Makes You Say That?, and Think-Pair-Share are incorporated to promote reasoning, discussion, and reflection in mathematics. These routines encourage students to observe patterns, articulate their thinking, and justify conclusions when analyzing data, solving problems, or interpreting line graphs. They support a classroom culture of curiosity, collaboration, and evidence-based reasoning while deepening students' understanding of mathematical relationships and processes.

ELA		Taba Concept Model Frayer Model Depth & Complexity SEM-R Questions RAST Plus, Minus, Interesting DeBono's Thinking Hats Analogies FFOE Mind Mapping	See Think Wonder Think, Pair, Share Connect, Extend, Challenge Creative Questions Elaboration Game	CCT Choice Boards

Description:
Frayer Models are a graphic organizer tool that allows students to dig deeper into vocabulary or concepts taught in class. Frayer Models break thinking into four parts (typically: definition, characteristics, examples, and non-examples) and can be adjusted to fit different needs in math, science, and other subjects. This quarter, your student used the Frayer model to introduce and explore new vocabulary in our Middle Ages unit.
To launch our Middle Ages unit, students engaged in the Taba Development Model on the concept of power. Taba involves inductive and deductive reasoning processes and focuses on generalizing from a student-derived list of ideas. In this launch, students collaboratively listed things that have power, sorted them in different ways, and then created generalizations about power. Throughout the unit and within other subjects, students have made connections between their new learning and the generalizations about power.
Critical and creative thinking strategies (CCT) are infused into the APS ELA curriculum. This quarter, students were introduced to CCT choice boards relating to their CKLA units on the Middle Ages. The choice boards are designed to increase voice and choice and deepen understanding of grade-level content. Some of the strategies we utilized this quarter were DeBono's Thinking Hats, Analogies, Fluency- Flexibility- Originality- Elaboration (FFOE), Role- Audience- Situation- Task (RAST), Depth & Complexity, Plus- Minus- Interesting (PMI), Mind Mapping, and these Thinking Routines: Creative Questions, Compass Points, Connect- Extend- Challenge.
To launch Part II of the Middle Ages unit, students used the Project Zero Thinking Routine: Elaboration Game. This routine encourages students to look carefully at details in medieval images. It challenges them to develop elaborate, nuanced, and imaginative verbal descriptions. It also enables them to distinguish between observations and interpretations by asking them to withhold their ideas about the artwork until the end of the routine. This, in turn, strengthens students' ability to reason carefully by giving them practice making sustained observations before jumping to judgment.

Science & Social Studies		Creative Problem Solving Vocabulary Web	See Think Wonder Think, Pair, Share	

Description:
Harvard's Project Zero Thinking Routines were utilized in science and social studies instruction. PZ researchers designed thinking routines to deepen students' thinking and make it "visible." In social studies and science, students experienced the See-Think-Wonder and Think-Pair-Share thinking routines. Providing many opportunities for students to think and discuss content adds depth and complexity and increases cooperative learning. These two routines are used in all subject areas to support student learning.