

Inside a Differentiated Classroom Using Maker's Model

Scenarios

Scenario #1

For several days in Mrs. Jacobsen's sixth grade science class, students have been investigating the impact of simple machines on modern technology and our current lifestyles. The study is part of an on-going attempt to help students make connections between science and daily life. Students have been assigned to one of two "task force" groups by Mrs. Jacobsen based on her on-going assessment of their readiness levels, interests and learning profiles. Task Force #1 will work in smaller groups of three or four students (self-selected). They are looking at simple machines at work in more complex ways in the school. They will complete a photo safari (using a Polaroid) of places in which they hypothesize one or more simple machines are "disguised" as part of something more complex, complete photo layouts naming their found objects and stated hypotheses of which simple machines are involved and why they think so, and search out evidence which supports or refutes their hypotheses (including classroom & library reference books and designated school staff). Students must then add a "tested hypothesis" statement in which they note whether their original hypothesis was accurate and why or why not. Students in Task Force #2 must determine a school, personal or societal need which is unsolved, research the need so they understand it in some detail, and develop a device for addressing the problem. The device must contain at least three simple machines working in concert with one another (and other elements). They must make a written or graphic design of their device, carefully delineating its parts and how they work together as a whole. They may then make a working model, non-working but accurate and proportional model, model in which humans take on the roles of the parts of the device and demonstrate how it works, or another student-proposed demonstration.

Scenario #2

In Mrs. Walker's first grade class, students work with center work in language for a period of time each morning. There are two "choice boards" in the classroom called "Teacher Choice" and one called "Student Choice." Each student has at days a week of student choice selections and at least two of teacher choice selections. days when Fred is assigned to Teacher Choice, Mrs. Walker will select centers materials at his level of language readiness and ensure that he works at centers include those materials. On his student choice days, Fred may select from any "pockets" on the student choice board. Those offer a wide range of choices from to computer work to writing/drawing, to model-making. All of the options students to use language in ways which they find pleasurable. If Mrs. Walker elects so, she can guide even the student choice work by color coding rows of pockets student choice chart, and for example, telling Fred he may pick any choice from and yellow rows (but not blue row). Often she also "staggers" center work so students work at centers while others work with her in directed reading activities individual conferences, and others work with desk work on math or language.

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Scenario #3

In eighth grade math, Miss Harrington has a wide range of students in her class – even though they are all in Algebra 1. Sometimes, she does board demonstrations for the class on new concepts or topics which students seem to have difficulty grasping. She makes an effort to use no more than about 15-20 minutes for the demonstrations. She then has students work in a variety of groups. Sometimes students select from a list of activities which they feel would benefit them most, find another student who needs the same practice, and pair up to work on a given activity. Sometimes she assigns students to mixed-readiness pairs or quads for peer tutoring. Sometimes she does direct instruction with a number of students, while others work independently on assigned problems or their long-term independent study projects, and still others work in pairs at blackboards with assigned problems (so that she can monitor their work even while she is busy with other students). All students in her class have long-term independent study projects throughout much of the year. They vary in complexity, duration and the amount of structure provided by the teacher, but all of the projects require that students grapple with math at work in the world, and expand their skills of independence. All allow a range of options through which students can study and express their understandings. For students advanced in a particular segment of algebra, independent projects often serve as a sort of compacting, allowing these students to work on their personal investigations in lieu of homework and/or class work on which they have already shown mastery.

Scenario #4

Mr. Jones has turned his fourth grade classroom into a Florida Learning Laboratory, integrating the required curriculum to create thematic based units of student. Each child has a personal folder containing specific tasks and requirements based on academic ability. There is no identifiable coding and all students are provided with choices to demonstrate mastery of the assigned tasks providing all children with the opportunity to be engaged in learning at a level which is appropriate, comfortable, and challenging.

Students follow the rotation schedule as they visit the learning stations and complete their tasks. Grouping varies depending on the themes. At times students are grouped by interest, other times they are grouped heterogeneously by strength working cooperatively to develop projects using their individual area of expertise (i.e. Writer, artist, performer).

His schedule allows for independent study as well as providing small group instruction with students in need. There is also time for individual conferencing and facilitative observation!

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Scenario #5

Miss Justin works with her English 10 students in a variety of ways to tap into their interests, readiness levels and learning profiles. Based on pretesting, she assigns students to different vocabulary studies, super sentences and spelling lists. In writing, students often select topics of interest to them for particular writing assignments. For each writing form (e.g. essay, letter to the editor, etc.) there are certain "criteria for success" required of all students. In addition, students learn to pinpoint personal goals and base student-generated criteria upon those goals – and Miss Justin generally adds a couple of criteria to each student's general and personal list for major assignments. In literature, students often select novels, dramas or short stories of interest to them to accompany whole-class pieces – thus enabling common focus with personalized "side explorations." Further, products can often be produced alone or in student-selected groups of specified size and offer options for expressions of students learning, as well as guidance for how to ensure top quality production. Miss Justin finds Group Investigation appropriate for high level study of student-generated topics, and Teams, Games & Tournaments to be useful for study for vocabulary, basic literature information, grammar constructs and other straightforward data requiring student mastery.

Scenario #6

Mr. Phillips has three strategies which he is particularly comfortable using in high school biology to address the academic diversity in his mixed ability classroom. He routinely uses the New American Lecture format (incorporating focused review, discussion, and graphic organizers) to ensure that all students are prompted in regard to the key content of his lectures. He also routinely uses a set of five different graphic organizers to guide students in their analysis of required reading. All require analysis of key information, but some require greater leaps of inference from the students than do others. In product design, he likes offering three options to students – one more analytical in nature, one more practical and one more creative. He finds that students come to understand their own strengths better through the year and find science a more relevant endeavor because they can put to work what they learn in a way which fits their own learning strengths. In labs, he sometimes offers two options based on assessment of student understanding of key concepts – one designed to give students concrete, hands-on experience watching key principles in action, and a second designed to necessitate that students develop labs on their own to demonstrate key principles. Finally, he often uses varying tests based on student readiness and learning profile. In all test situations, students must demonstrate the ability to use key principles, but some students do so at a more basic level and some at a level which adds variables, introduces "fuzzy" problems, or requires considerable abstraction.

Scenarios prepared by Carol Ann Tomlinson, University of Virginia