Differentiated lessons occur either vertically or horizontally. *Vertical differentiation* (aka differentiating based on readiness or tiered differentiation) is the process through which varied lessons are provided to students based on ability level, aptitude, or proficiency of a given topic or idea. In vertical differentiation, the teacher must gauge, either through pre-tests, assessments, or observations, the level at which each student has mastered the desired lesson objective and create varied activities that challenge all students at their current level of learning. Vertical differentiation assures that lower-level students are not left behind or frustrated by instruction that moves too quickly or is too challenging. Additionally, vertical differentiation is formatted to challenge the students who already have base or higher levels of proficiency with the material by pushing them to interact with the lesson at a deeper level of understanding.

In order to fully differentiate a lesson vertically, the classroom teacher must utilize data to create tiers of students at varied levels. Once tiered, the teacher creates lessons, activities, or assessments that challenge students to meet the curricular objective at a level that will not be either too advanced or too simplistic. For example, an algebra teacher may create three tiers of students in class in regards to the students’ abilities to solve equations with one variable. Though the objective of the lesson may be the same for all students in the classroom – Students will analyze and solve equations with one variable – the level of the problems students work might be considerably different. Students in a more advanced tier may be given more challenging, multi-step equations to solve while students in the lower tier are working to solve simpler equations with fewer steps. A history teacher, for example, may have the objective that students will understand the causes of United States entry into the Korean conflict. The history teacher, after tiering his class, could provide varying articles to tiers. Lower-tier students may read a shorter article that summarizes briefly the core causes and is written at a lower grade level while upper-tier students are reading an article that gives more specifics and is quite challenging to analyze. Both groups have knowledge about the causes, which met the lesson objective; however, upper tier students can more fully discourse on particulars and have been challenged.

*Horizontal differentiation* (aka interest differentiation) occurs as the result of teacher knowledge of, and planning for, the varied learning styles (also known as multiple intelligences) of students in the classroom. Countless books and articles have been written about varied learning styles, and inventories to assess these learning styles are available all over the internet. Teachers and students alike should be aware (or made aware) that learners come in varied types, and this knowledge should be used in the planning of lessons or units. As with vertically differentiated lessons, the objective of any lesson should not change; however, the ways in which either students interact with the information of that lesson or the ways students showcase proficiency of that information will vary depending upon either the unique learning styles of the students in the class or the interest students may have with a particular assignment choice. For instance, a biology teacher whose objective is that students will be able to identify and explain the varying parts of an animal cell, could tap into various learning styles when teaching the concept. In the lesson, the teacher could have paper diagrams for students to label at one part of the period, could later have students manipulate models of cells and identify and explain parts, and could finally assign each student in the class a particular part of a cell and have the class as a whole form a large cell (made up of people serving in specialized capacities). The lesson allows visual, tactile, kinesthetic, and discussion oriented learners the opportunity to gain knowledge of the information on a level appropriate to their learning style. When assessing students, horizontal differentiation requires that students have a choice in how they are assessed. For example, an English II teacher wanting to assess student knowledge of irony could have students take a test, write and present an ironic skit, create a cartoon, or write a short ironic story. Each would work to assess understanding of irony.

Differentiated instruction often works well in conjunction with groups, particularly intentionally created groups. *Intentional grouping* is the process of using data or knowledge of student proficiency or learning style to form groups that will allow for the maximum amount of student learning to occur.