Pre-lesson Activity slide notes for suggested discussion guides for teachers

Slide 1: This set of slides can be used as a review or introduction of basic genetic concepts that students should know before the Lessons 1 and 2.

Slide 2: Conduct a brief class discussion to assess students' knowledge and assumptions about genetics, while providing the information to those students who may not have any prior knowledge.

Slice 3: Hand out the Word Match Activity worksheet and ask students to work in pairs to complete the worksheet. If needed, tell students that "double helix*" is paired with another term, and that both terms should be placed in one of the six areas indicated on the illustration.

Slide 4: Have students volunteer the answers and clarify that "double helix" is the structure of DNA.

Slide 5: Use this overhead for students to complete the 4 sentences.

Slide 6: Have students volunteer their answers, and help students understand that the inherited traits are passed from one generation to the next as the parents' chromosomes are copied and passed to their children.

Slide 7: (*Optional*) For this task, pre-arrange with a school librarian or media specialist to provide students with the computers with the web sites, "Talking Glossary of Genetic Terms" (http://www.genome.gov/10002096) and/or "DNA from the Beginning's Classical Genetics" (http://www.dnaftb.org/dnaftb/), in addition to other reference materials student pairs can used to complete the task.

Hand out the Basic Genetic Terms worksheet and provide reference materials for students to use in completing the worksheet.

Have student pairs take turns in sharing their definitions and examples of the terms. (See the Basic Genetic Terms for Teachers for sample definitions and examples.)

Slide 8: Review key concepts of Mendelian Inheritance with students. For #3, ask students what situations may call for an unobservable trait to be passed from parents to children. Students may be able to apply their understanding of dominant and recessive traits where parents with both dominant and recessive traits only show dominant traits while being able to pass their recessive traits to the next generation.

Slide 9: Review with students the term "allele" (a variant form of a gene) and help students understand that each gene has a pair or two alleles—one allele from mom and the other from dad.