

## Mini-Lesson: Punnett Squares

Each parent of an organism contributes a gene with two *alleles* that may be dominant or recessive. A dominant trait will always be expressed over a recessive trait. This can be illustrated with a simple chart called a Punnett Square:

### Pea Plant Examples

Plant 1 = Dominant Tall (TT) = Tall Plant

Plant 2 = Mixed Hybrid (Tt) = Tall Plant

	T	T
T	TT	TT
t	Tt	Tt

Each square represents a potential offspring. Discuss the results and ask students to explain why each offspring in this example will be tall. Ask students to hypothesize how a short plant could be produced. Can two tall plants produce a short plant? Complete the next example:

Plant 1 = Mixed Hybrid (Tt) = Tall Plant

Plant 2 = Mixed Hybrid (Tt) = Tall Plant

	T	t
T		
t		

- What percentage of the offspring would you predict to be tall plants?
- What percentage will be short plants?
- What are the benefits of being able to predict genetic outcomes?

Complete additional examples as needed for student practice.