



Unit 2, Option B, Chilicraft Student Handout

Trait Selectors _____, _____

Mission: With a Partner, select 4 traits from 2 Parent Plants to build your own chiltepin, your Dream Pepper.

CHILICRAFT

1. With your Partner, select 2 parent plants from your Chiltepin Menu Choices A-F based on the traits of color, size, shape and heat level that you want for your Dream Pepper. Draw your Dream Pepper and write your overall trait goals in the Generation 1 Dream Pepper Traits & Drawing table below.
2. In the gray Generation 1 Parent columns on page 2, record your two selected parents and traits, then set the Chiltepin Menu aside. You will **not** be using it again.
3. Create the first set of offspring for Generation 1. Take turns flipping a coin for each selected trait: Tails = trait from Parent 1 wins, Heads = trait from Parent 2 wins. Record data in the Seed Offspring 1 column.
4. Repeat two more times to create Seed Offspring 2 and 3.
5. Now select the 2 plants (seed offspring or original parent) for the next generation **that are the closest to your Dream Pepper vision.**
6. Repeat Steps 1- 5 until you have completed 3 generations of growing plants. Record data for each generation.
7. Complete Data Breakdown on page 4, then use it and your game experience to answer questions 1-3 on the last page.

Generation 1 Dream Pepper Traits & Drawing

Generation 1 Dream Pepper Drawing	Gen 1: Overall Goal of Traits
	Color Size Shape Heat: Mild, Medium, Hot

Gen 1 Parent 1 _____ (tails)	Gen 1 Parent 2 _____ (heads)	Seed Offspring 1	Seed Offspring 2	Seed Offspring 3
Color	Color	Color	Color	Color
Size	Size	Size	Size	Size
Shape	Shape	Shape	Shape	Shape
Heat	Heat	Heat	Heat	Heat

Generation 2 Dream Pepper Traits & Drawing

Generation 2 Dream Pepper Drawing	Gen 2: Overall Goal of Traits
	Color Size Shape Heat: Mild, Medium, Hot

Gen 2 Parent 1 _____ (tails)	Gen 2 Parent 2 _____ (heads)	Seed Offspring 1	Seed Offspring 2	Seed Offspring 3
Color	Color	Color	Color	Color
Size	Size	Size	Size	Size
Shape	Shape	Shape	Shape	Shape
Heat	Heat	Heat	Heat	Heat

Generation 3 Dream Pepper Traits & Drawing

Generation 3 Dream Pepper Drawing	Gen 3: Overall Goal of Traits
	Color Size Shape Heat: Mild, Medium, Hot

Gen 3 Parent 1 _____ (tails)	Gen 3 Parent 2 _____ (heads)	Seed Offspring 1	Seed Offspring 2	Seed Offspring 3
Color	Color	Color	Color	Color
Size	Size	Size	Size	Size
Shape	Shape	Shape	Shape	Shape
Heat	Heat	Heat	Heat	Heat

Data Breakdown Draw the 3 seedlings of generation 3. Put a **star** by the pepper(s) that are closest to the dream pepper you wanted to build.

Gen 3 Seed Offspring 1	Gen 3 Seed Offspring 2	Gen 3 Seed Offspring 3

1. What were the 4 trait goals you had for your Dream Pepper?

Size _____ Color _____ Shape _____ Heat _____

2. What traits most closely matched your Dream Pepper in Gen 3? Refer to the pepper you placed a star beside.

Size _____ Color _____ Shape _____ Heat _____

3. Humans have selected traits they want plants to have for hundreds of years. What did Chilicraft teach you about trait selection and crafting or engineering the traits of a plant?
