

# A NEW SMILEY FACE

## LET'S CREATE A SMILEY FACE BY USING GENATICS

### ACTIVITY 1

- Obtain two coins from your teacher.
- Mark one coin with a "F" and the other with a "M" to represent each of the parents.
- The parents are heterozygous for all the Smiley Face traits.
- Flip the coins for parent for each trait.
- If the coin lands with heads up, it represents a dominant allele.
- A coin that lands tails up indicates a recessive allele.
- Record the result for each person by circling the correct letter.
- Use the results and the Smiley Face Traits page to determine the genotype and phenotype for each trait.

Trait	Female		Male		Genotype	Phenotype
Face Shape	C	c	C	c		
Eye Shape	E	e	E	e		
Hair Style	S	s	S	s		
Smile	T	t	T	t		
Ear Style	V	v	V	v		
Nose Style	D	d	D	d		
Face Color	Y	y	Y	y		
Eye Color	B	b	B	b		
Hair Length	L	l	L	l		
Ear Color	P	p	P	p		
Nose Color	R	r	R	r		
Freckles	F	f	F	f		

### ACTIVITY 2: Is it a boy or girl?

- To determine the sex of your smiley face, flip the coin for the male parent.
- Heads would represent X, while tails would be Y.

	Female	Male		Genotype	Phenotype
Sex	X	X	Y		

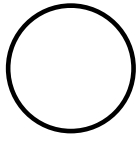
## **ACTIVITY 3: Create Your Smiley Face!**

- *Use the Smiley Face Traits chart and your results from Part A to create a sketch of your smiley face in given box.*
- *use crayons or colored pencils to finish it.*
- *Don't forget to give your smiley face a name!*

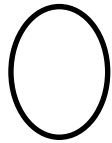
**My Name is:.....**

# Smiley Face Traits

## Face Shape



Circle (C)



Oval (c)

## Eye Shape



thick (E)



line (e)

## Ear Shape

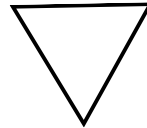


curve (V)

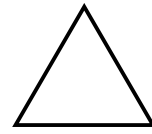


pointed(v)

## Nose Shape



down (D)

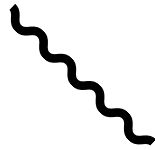


up(d)

## Hair Style



straight (S)



curly (s)

## Smile



Thick (T)



Thin (t)

- Face Color Eye Color
  - Yellow (Y) Blue (B)
  - Green (y) Red (b)
- Hair Length Freckles
  - Long (L) Present (F)
  - Short (l) Absent (f)
- Nose Color Ear Color
  - Red (RR) Hot Pink (PP)
  - Orange (RY) Purple (PT)
  - Yellow (YY) Teal (TT)
- Sex
- To determine the sex, the flip the coin for the male parent.
  - Heads equals X and tails equals Y.
  - XX - Female - Add pink bow in hair
  - XY - Male - Add blue bow in hair