

MARRIAGE

Lesson 11

Workbook Assignment

A Portrait
Family Album

Overview

The purpose of this lesson is to help students understand how children change the dynamics of the family. Student couples will assume the role of parents and be asked to make important decisions together regarding their children.

Objectives

- ◆ Students will select the genders, names, and ages of their "children".
 - ◆ Student couples will work together on the Create-a-Kid project.
 - ◆ Students will develop a Family Album that describes features of their immediate "family".
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Vocabulary

flexibility

responsibility

Key Concepts

- Children will be a significant part of most marriages.
 - Parents need realistic expectations about what their children will be like.
 - Children may be very different from their parents in looks, temperament and behavior.
 - Parents must work together to make decisions regarding the children and be good role models.
 - Parents are responsible for the nurturing and care of their children until the children are able to live independently.
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Preparation for Lesson

The teacher will need:

- Children game cards cut out and ready to distribute
- Bag or container for distributing the game cards
- Prepared class copies of the Create-a-Kid project and answer grid worksheets

both parents. It is possible for each child to be very different from the other members of the family.

- To demonstrate the concept that children can be different from their parents, the students will work together on the Create-a-Kid project. Distribute the Create-a-Kid handouts to each couple. Both partners will need a coin to toss. (The students whose partners are not in the class may either toss the coin twice, once for themselves and once for the absent partner to complete the grid, or they may take the project home overnight and have their partner finish the second part of the grid.)
- Read the directions carefully before beginning this exercise and allow approximately 20-30 minutes for completion. When the partners have completed each section on the answer grid, they will have the necessary information to draw the "portrait" of their first child. Colored pencils should be used for the best results. Space has been provided in the workbook on the page entitled *A Portrait*. The students have fun with this project and are generally quite proud of their "child". The drawings vary in quality. Assure the students that you will not be grading their artistic ability.
- Assign the *Family Album* worksheet as homework. Encourage the students to decorate the page as they choose.

LECTURE NOTES:

When individuals marry, there are major adjustments that both partners must be willing to make during the first year of marriage. Couples who are able to make these adjustments find new patterns of behavior that work for them and adjust their lifestyle to accommodate the changes. Before long, the new patterns become part of daily living and the couple finds that they have settled into a comfortable routine. Many young people who marry, however, are unprepared for the amount of change that is required to blend their life with another person. Couples who are not able to make the necessary adjustments to accommodate the other person experience difficulties or may even divorce.

Change and adjustment are part of marriage. When a child enters the household, the harmony between a husband and wife is greatly impacted. While most couples look forward to the birth of a child into the home, they may not have spent much time around

young children and don't really know what to expect. Parents tend to have unrealistic expectations about the role of parenting, and about what the child/children will be like. The Create-a-Kid project is intended to help students understand that children born into a family can be very different from the parents and be different from the other siblings. Each time the students do the answer grid the results will vary. This will also be the case someday when they have children of their own. There is no way to predict the outcome of the "child" since it is totally the result of chance.

It is imperative that parents work together when sharing the responsibility of children. Some of the student couples will discover that they cannot agree on the genders, names and ages of the children they have been assigned. This leads to some interesting discussions and a moderate amount of frustration for the partners. Students also discover the difficulty of being partnered with someone who doesn't work well with another person. Some partners are left alone to make most of the important decisions or they have partnered with someone who doesn't allow them to participate in the decisions-making process. This is a good exercise for the students to learn the value of compromise and flexibility within a relationship.

Parents who are able to work in harmony with each other within the home demonstrate good role models for their children. When children have the advantage of seeing adults making decisions, working toward common goals, and supporting each other, they learn the skills they will need in similar situations.

CREATE - a - KID

(Variation in Faces)

This Create-a-Kid activity has been adapted from the one distributed several years ago at the National Science Teachers' Convention. Although it has gone through several revisions by a number of authors, the original author is Gordon Mendenhall.

Background

Human hereditary traits are passed from generation to generation in unique combinations. Couples anticipating the birth of their first child may expect that their offspring will look, think and act just like one or both of them. Sometimes children do share similarities with the parents, but more often children come with their own blend of genetic inheritance and may not resemble their parents in either looks or temperament.

The purpose of this activity is to simulate genetic inheritance as you and your partner "produce" a baby. Most of the traits in the activity were created to illustrate, in a simplified model, how human heredity works. Partners will see that dominant and recessive genes combine to produce a variety of facial characteristics. In reality, inherited characteristics of the face are much more complicated than this activity illustrates. Most facial characteristics are determined by many genes working together in ways not yet understood.

Objectives

1. To determine the role of probability in genetics
2. Recognize the relationship between genotype and phenotype (appearance) in an individual

Materials

Colored felt pens or pencils
Plain paper or answer grid
Two coins (pennies, nickels, dimes or quarters)

Procedure

For this activity, the oldest child may be determined when selecting a **Children** game card from the marriage unit. Or, each partner may flip a coin to determine the sex of the first child.

Heads - dominant gene designated by a capital letter (R,T,W, etc.)
Tails - recessive gene designated by a lower case letter (r,t,w, etc.)

1. Each partner will flip his/her coin to determine the characteristic traits listed.
2. Record the gene contributed by each parent in the provided data sheet and

describe the facial characteristics of the offspring.

3. When you have determined all the features for a particular structure, for example the eyes, draw and color the way the baby will look either as a baby or as a teenager or both.

Characteristics Chart

Face Shape

Round (RR, Rr)



Square (rr)



Chin Shape

Very prominent (VV, Vv)



Less prominent (vv)



Chin Shape : Only flip coins for this trait if chin shape genotype is VV or Vv. The genotype vv prevents the expression of the next two pairs of genes.

Round (RR, Rr)



Square (rr)



Cleft Chin

Absent (AA, Aa)

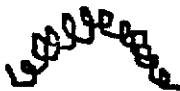


Present (aa)

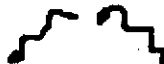


Hair (incomplete dominance)

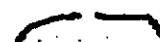
Curly (CC)



Wavy (Cc)



Straight (cc)



Widow's Peak: The hair-line comes to a point in the center of the forehead.

Present (WW, Ww)



Absent (ww)



Hair Color: Dark is dominant over light

To determine the color of your "kid", assume that there are two gene pairs involved. There are probably more. Flip your coins first to determine the genotype of the first pair of genes (AA, Aa, aa). Now flip your coins again to determine the genotype of the second pair of genes (BB, Bb, bb). If your gene pairs are ---1--- then the baby's hair color is ---2---

---1---

---2---

---1---

---2---

AABB

Black

AaBb

Brown

AABb

Black

aaBB

Dark Brown

Aabb

Red

aaBb

Regular Brown

AabB

Brown

aabb

Pale Yellow Blond

AaBB

Regular Blond

Eyebrows

Bushy (BB, Bb)

Fine (bb)



Eyebrows

Not Connected (NN, Nn)

Connected (nn)

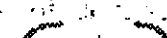


Color of Eyebrows

Darker than hair (HH)

Very dark (Hh)

Lighter (hh)



Eyes: Distance apart

Close together (EE)



Average Distance (Ee)



Far Apart (ee)



Eyes : Size

Large (EE)



Medium (Ee)



Small (ee)



Eyes: Shape

Almond (wide) (AA, Aa)



Round (narrow) (aa)



Eyes: Slantedness

Horizontal (HH, Hh)



Upward slant (hh)



Eye Color: Dark eyes are dominant over light

Darker eyes are produced in the presence of more active alleles. In this situation, the large letters (A or B) represent alleles which are active in depositing dark pigment. Small letters (a or b) represent alleles which deposit little pigment.

To determine the color of your "kid's" eyes, assume there are two gene pairs (alleles) involved. One of which codes for depositing pigment in the front of the iris and one which codes for depositing pigment in the back of the iris. Determine the genotype of the first pair (AA, Aa, aa) and then of the second pair (BB, Bb, bb). If the gene pair is

---1--- then the "kid's" eyes are ---2---. Actually, it is probably more involved than this.

---1---

---2---

---1---

---2---

AABB

Intense Brown

AAbb

Brown

AABb

Intense Brown

Aabb

Gray Blue

AaBB

Brown with green

aaBB

Green

AaBb

flakes

aaBb

Dark Blue

Brown

aabb

Pale Blue

Eyelashes:

Long (LL, Ll)

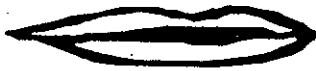


Short (ll)



Mouth:

Long (MM)



Average (Mm)



Short (mm)



Lips:

Thick (LL, Ll)



Thin (ll)



Dimples:

Present (DD, Dd)



Absent (dd)



Nose:

Big (NN)



Medium (Nn)



Small (nn)



Ears:

Earlobes Free (GG, Gg)



Earlobes Attached (gg)



Ears: size

Large (SS)



Medium (Ss)



Small (ss)



Freckles on Cheeks:

Present (FF, Ff)



Absent (ff)



Skin Color:

To determine the color of the skin, assume there are three gene pairs involved. Flip your coins first to determine the genotype of the first pair of genes (AA, Aa, aa). Then flip your coins again to determine the genotype of the second pair of genes (BB, Bb, bb). Flip for the last time to determine the third pair of genes (CC, Cc, cc). If your gene pairs are ---1--- then the skin color is ---2---.

Each capital letter represents an active allele for pigmentation.

---1---	---2---
6 capitals	very dark brown
5 capitals	very dark brown
4 capitals	dark brown
3 capitals	medium brown
2 capitals	light brown
1 capital	light tan
no capital	white

CREATE-A-KID DATA SHEET

Name:
Period:

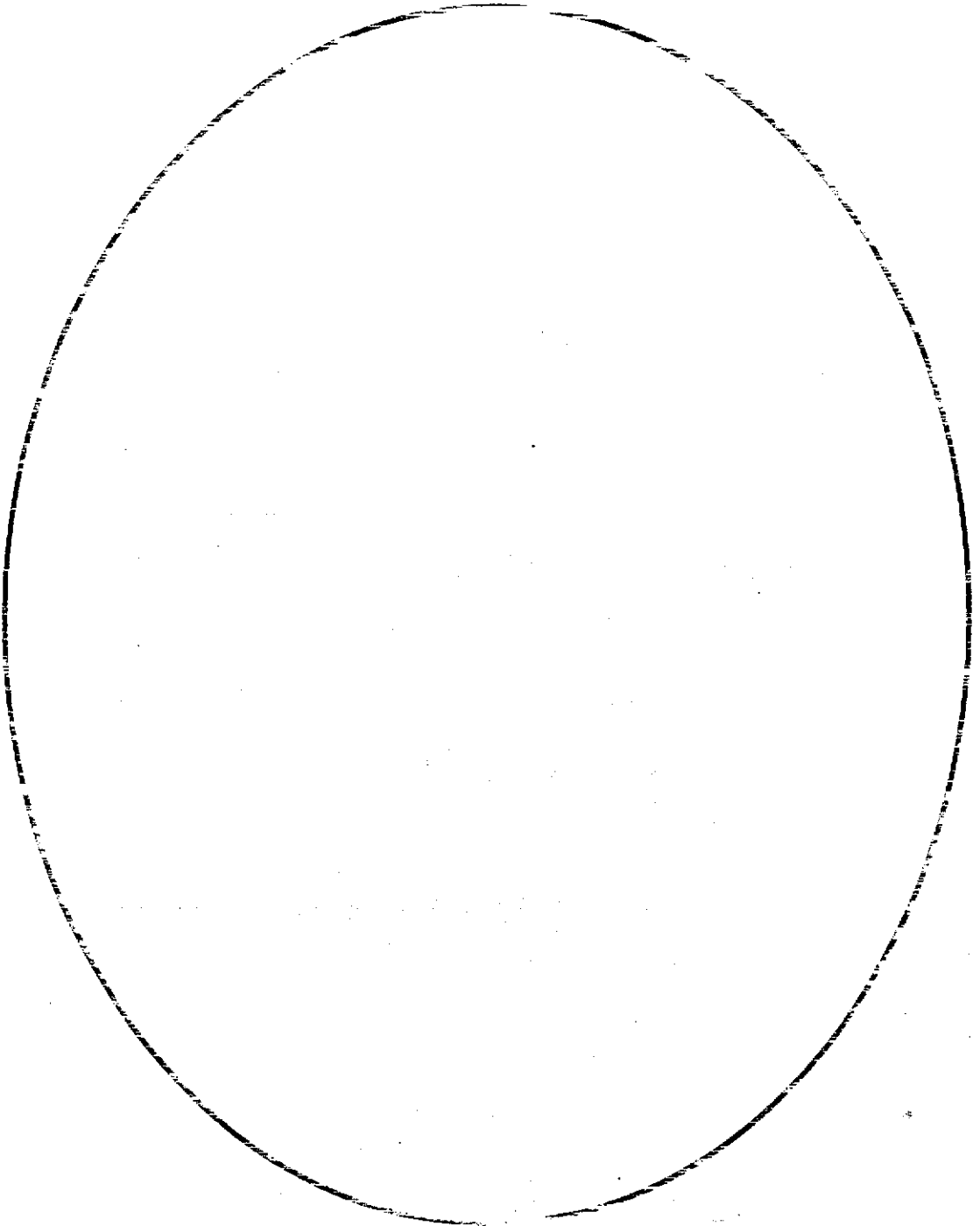
Characteristic	Gene from Father	Gene from Mother	Genotype (kid)	Appearance
Sex				
Face Shape				
Chin Shape				
Chin Shape				
Cleft Chin				
Hair				
Widow's Peak				
Hair Color				
Eyebrows				
Eyebrows				
Color - Eyebrows				
Eyes - Distance				
Eyes - Size				
Eyes - Shape				
Eyes - Slant				
Eye Color				
Eyelashes				
Mouth				
Lips				
Dimples				
Nose				
Ears				
Ears (Size)				
Freckles on Cheek				
Skin Color				
Father's Name				
Mother's Name				
Child's Name				

FAMILY ALBUM

After drawing your firstborn child on the previous page, give a brief description of all the children including their names, ages, and genders. You may use pictures from magazines to complete the album. Family pets may be included.

A PORTRAIT

First Child



Name _____

Birthdate _____