

Name: \_\_\_\_\_

## Heredity Packet Reading Guide

### Heredity 1: What are inherited characteristics?

#### What do you look like?

1. Describe your appearance?

A. Traits

#### Whom do you look like?

1. Which parent do you resemble the most?

A. Inherited Traits

### Heredity

A. *Who was Gregor Mendel?*

B. Genetics

C. Heredity

## **Finding Out More**

A. Why is it difficult to study human genetics?

B. What type of plants and animals do scientists use when studying genetics?

## **Heredity 2: Why are chromosomes important?**

### **The Thread of Life**

1. Where do we find the chromosomes?

### **Chromosomes and Reproduction**

1. In asexual reproduction, where does the daughter cell get its chromosomes from?

2. In sexual reproduction, where does the offspring get its chromosomes from?

### **Chromosomes and Genes**

#### A. Genes

1. Where are genes located?

### **People In Science**

1. Who is Francisco Ayala

Name: \_\_\_\_\_

## **Heredity 4: Why can offspring look different from their parents?**

**Parents and Children do not look exactly alike.**

1. What are hidden traits?

### **T is for tall**

1. How many genes do we have for each trait?

### **It's a tall story**

1. What genes does a pure tall pea plant have?

### **Forever short**

1. What genes does a short pea plant always have?

### **Another way to get tall**

1. What genes does a hybrid tall pea plant have?

A. Hybrids

### **Who is hiding?**

A. Dominant Gene

B. Recessive Gene

## **Finding Out More**

### **A. Mutations**

## **Heredity 5: How are genes combined in offspring?**

### **It takes two to make a trait**

1. What kind of symbol is used to represent a dominant gene?

### **Pure traits and hybrid traits**

1. What kind of genes produce hybrid traits?

### **Predicting traits**

1. When two parents have pure traits of different kinds, what trait will their offspring have?

### **Combining hybrids**

1. What are the three kinds of traits that the offspring of hybrid parents can have?

## **Finding Out More**

1. Can traits be controlled by more than one pair of genes? Explain.

Name: \_\_\_\_\_

## **Heredity 6: Can traits be blended?**

### **An eye of a different color**

1. What color eyes do you have?

A. Blending

### **Studying Blending**

1. What is the color of hybrid of black chickens and white chickens?

### **Are blended genes lost?**

1. When hybrids with a blended trait are mated, how many different kinds of offspring are produced?

### **Finding Out More**

A. Melanin

## **Heredity 9: Can the environment affect inherited traits?**

### **Can genes do it all?**

1. What affects the traits of living things besides genes?

### **Conditions in the environment**

1. What may happen when the environment is not right?

### **Can the environment change the genes?**

1. What may happen to a trait when the environment changes?

### **Back to normal**

1. What do living things need to develop normally?

### **Finding Out More**

1. Why, when the scientist cut the tail off of mice, did the offspring of these mice still have tails?

### **People in Science**

1. Agnes N. Stroud-Lee