

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

### Clues From the Karyotype

#### Problem

How can a karyotype be used to identify chromosomal abnormalities in humans?

#### Background

Karyotyping is the way geneticists identify, organize, and study human chromosomes. Cells from tissue are placed in a culture medium and then chemically treated to stop mitosis at metaphase. Stopping mitosis at metaphase allows the chromosomes to be spread out easily for observation.

The cells are stained for examination under a microscope, and the chromosomes are photographed. The photo is enlarged and the individual chromosomes are cut out. Normally, there are 22 pairs of **autosomes** and one pair of **sex chromosomes**. They are divided into seven groups according to their length, the position of their centromeres, and their banding patterns.

The distinctive banding patterns created after the chromosomes have been stained are used to organize the chromosomes into **homologous**, or matching, pairs. This arrangement of chromosomes is called a **karyotype**. In this lab you will study a karyotype and analyze the information it provides.

#### Questions

1. How do geneticists use karyotypes? \_\_\_\_\_
2. Chromosomes are divided into seven groups according to what three characteristics? \_\_\_\_\_
3. What role do banding patterns play when organizing the chromosomes? \_\_\_\_\_
4. What is a karyotype? \_\_\_\_\_
5. Study the normal karyotypes of human chromosomes below. Notice that the chromosomes are arranged in pairs, which are numbered. Identify each one as either male or female.



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# Karyotyping Worksheet Answers Smear 3

## [Karyotyping Worksheet Answers Smear 3](#)

### **Karyotyping Worksheet Answers Smear 3**

Karyotyping Worksheet Smear # \_\_\_\_ How many chromosomes does this individual possess? \_\_\_\_ ... tape them to your worksheet and answer the questions on the worksheet. Chromosome Smear #1 Name \_\_\_\_ etific nc igh eeve. 3 Chromosome Smear #2 Instructions 1. Use scissors to cut out the individual chromosomes. 2. Match homologous pairs of chromosomes and place them on the worksheet in their ...

### **Karyotyping Worksheet - Flinn**

Showing top 8 worksheets in the category - Karyotype. Some of the worksheets displayed are Lesson 2 analyzing chromosomes, Biology 1 work i selected answers, Appendix a human karyotyping work, 14, Period chromosome and karyotype review, Ccut n paste karyotyping activityyut n paste karyotyping, Human karyotyping lab, Karyotyping activity.

### **Karyotype Worksheets - Teacher Worksheets**

Karyotyping Activity . In this activity, you will use a computer model to look at chromosomes and prepare a karyotype. You will diagnose patients for abnormalities and learn the correct notation for characterizing karyotypes. Site 1: [www.biology.arizona.edu](http://www.biology.arizona.edu) . Click on Karyotyping under human biology and read the Introduction page: 1. What causes a dark band on the chromosome? \_\_\_\_ 2. What is ...

### **Karyotyping Activity - The Biology Corner**

Karyotyping Activity 3 and KEY.pdf - Biology Karyotype Worksheet Name Period Fate\*Using the following diagrams please answer the corresponding questions

### **Karyotyping Activity 3 and KEY.pdf - Biology Karyotype ...**

Short Answer: 1. Trisomy 21 (Down Syndrome). 2. Klinefelter's Syndrome 3. Trisomy 13 Syndrome Short Essay: A Karyotype test is an extremely useful tool in determining any abnormalities in the chromosomes of an individual. It can help doctors find inherited diseases or tell you if you have the possibility of inheriting any genetic diseases. Karyotype testing is also helpful in testing the ...

### **Karyotype Lab.docx - Short Answer 1 Trisomy 21(Down ...**

Tape the chromosomes to the Denver System Worksheet. Answer the question on the Denver System Worksheet. 5. Use the size, centromere location, and banding pattern on each chromosome to match homologous pairs of chromosomes, and place the matching pairs on the Denver System Worksheet, with the centromere on the line provided and the short 3. Using scissors, carefully cut out the individual ...

### **Karyotyping Part 2 - Mr. Barrow's Science Center**

Karyotyping is one of many techniques that allow us to look for several thousand possible genetic diseases in humans. You will evaluate 3 patients' case histories, complete their karyotypes, and diagnose any missing or extra chromosomes. Patient

Histories . Patient A. Patient A is the nearly-full-term fetus of a forty year old female. Chromosomes were obtained from fetal epithelial cells ...

### **Karyotyping Activity - scienceteacherprogram.org**

the Denver System Worksheet. 3. Using scissors carefully cut out the individual chromosomes on the Karyotype Sheet. 4. Arrange the chromosomes in order of decreasing size, from largest to smallest. (That is how they will be arranged on the Denver System Worksheet.) 5. Use the size, centromere location, and banding pattern on each chromosome to match homologous pairs of chromosomes, and place ...

### **Karyotyping Cancer Cells - Flinn**

Karyotyping is one of many techniques that allow us to look for several thousand possible genetic diseases in humans. You will evaluate 3 patients' case histories, complete their karyotypes, and diagnose any missing or extra chromosomes. Then you'll conduct research on the internet to find web sites that cover some aspect of human genetics. If this is an assignment for a class, you should turn ...

### **Karyotyping Activity - Biology**

Karyotype Worksheet for Mrs De la Vega Hereyougo Karyotyping from Karyotype Worksheet, source:coursehero.com. Human Karyotyping Super Value Kit from Karyotype Worksheet, source:flinnsci.com . Chromosome Worksheet Answers Free Worksheets Library from Karyotype Worksheet, source:comprar-en-internet.net. Chapter14worksheets from Karyotype Worksheet, source:slideshare.net. Bio Karyotype Worksheet ...

### **Karyotype Worksheet | Homeschooldressage.com**

Chromosomes And Karyotype. Chromosomes And Karyotype - Displaying top 8 worksheets found for this concept.. Some of the worksheets for this concept are Lesson 2 analyzing chromosomes, Biology 1 work i selected answers, Karyotyping activity, A chromosome study work answers, Human karyotyping lab, Chromosome analysis, 14, Genes and chromosomes.

### **Chromosomes And Karyotype Worksheets - Kiddy Math**

Worksheet Name \_\_\_\_ Period \_\_\_\_ Date \_\_\_\_\*\*\*Using the following diagrams please answer the corresponding questions\*\*\* The following diagram is of a set of human chromosomes. This diagram is known as a KARYOTYPE. There are several things that can be seen in such a diagram. You will discover these things through the following readings and questions. Karyotype A 1.) Karyotype A is the first set ...

### **6-Karyotype Worksheet.cwk (WP) - Biology**

Correct. Now click on the chromosome in the karyotype that is homologous to this chromosome. \_\_\_\_

### **Karyotyping Activity - Biology**

Karyotyping Activity Patient C's Karyotype Congratulations! You successfully completed Patient C's Karyotype. Next, interpret the karyotype and make a diagnosis. Patient C's

completed karyotype is at the bottom of the page for reference. On a separate piece of paper, answer the following 2 questions. Interpreting the karyotype Lab technicians compile karyotypes and then use a specific notation ...

### **Karyotyping Activity - Biology**

KARYOTYPING LAB Background Information: Scientists have developed several different tools and techniques for studying chromosomes, genes and base pairs in humans and other organisms. One of the most useful techniques is karyotyping. A karyotype is a photograph of all of an organism's chromosomes. The chromosomes in the karyotype are arranged in homologous pairs according to size (largest to ...

### **KARYOTYPING LAB - Ms. Murphy**

Karyotyping Lab Karyotyping Lab—Chapters 9, 11 Academic Biology 10--Dr. Gallo Period: Introduction: This exercise is a simulation of human karyotyping using digital images of chromosomes from actual human genetic studies. You will be arranging chromosomes into a completed karyotype and interpreting your findings jus 1 ou were working in a genetic analysis program at a hospital or clinic. Go ...

### **karyotyping lab KEY - North Allegheny School District**

BIOLOGY 235 Worksheet 3 ,STUDENT ID LAST 4 DIGITS, NAME KARYOTYPING: Karyotyping is a method of examining the mitotic chromosomes of an individual to detect abnormalities in chromosome number and/or structure. It has broad applications in clinical and experimental genetics, from prenatal diagnosis of chromosomal abnormalities to detection of abnormalities in cancer cells. It is used routinely ...

### **BIOLOGY 235 Worksheet 3 ,STUDENT ID LAST 4 DIGITS ...**

Take a quick interactive quiz on the concepts in Karyotyping Tests: Definition, Procedure & Examples or print the worksheet to practice offline. These practice questions will help you master the ...

### **Quiz & Worksheet - Understanding Karyotype Tests | Study.com**

Cut And Paste Chromosome. Displaying top 8 worksheets found for - Cut And Paste Chromosome. Some of the worksheets for this concept are Ccut n paste karyotyping activityyut n paste karyotyping, Mitosis cut out the diagrams of mitosis and paste them in, A chromosome study work answers, 14, Lesson 2 analyzing chromosomes, Human karyotyping lab, Paper karyotyping activity, Work 1.

### **Cut And Paste Chromosome Worksheets - Learny Kids**

Chromosome Smear 6. Showing top 8 worksheets in the category - Chromosome Smear 6. Some of the worksheets displayed are Lesson 2 analyzing chromosomes, Biology 1 work i selected answers, The study of blood, Bf136 karyotyping cancer cells, Chapter 14 the human genome making karyotypes, Answers to question for selected hematologic malignancies lab, Human karyotyping lab, Gregor mendel genetics ...

If you were to infatuation such a