



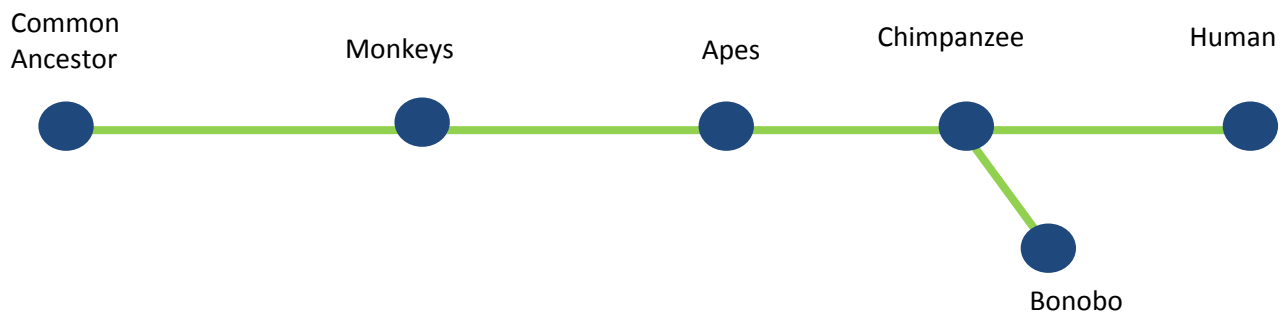
# Chimpanzee & Human Chromosomes

## Student Activity Sheets



## Activity One: Who are our relatives?

1. Circle the areas that you think are wrong with this primate family tree:



2. Using a pencil in the space below draw what you think a primate family tree should look like:



## Activity Two: Chromosome Puzzle

1. Predict how similar or different you think the karyotype of the human chromosome will be?

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2. I have chimpanzee chromosome number: \_\_\_\_\_

3. Using the space below, draw or stick in a picture of what your chimpanzee and human chromosome looks like:

**Chimpanzee Chromosome**

(Number: \_\_\_\_\_)

**Human Chromosome**

(Number: \_\_\_\_\_)

4. Describe the similarities and differences between the two chromosomes

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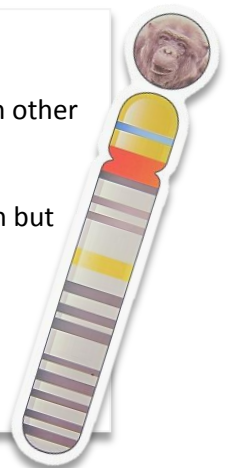
### Chromosome Key:

**Red bands:** Centromere – used by the cell to pull duplicated chromosomes away from each other when the cells divide.

**Yellow Bands:** Heterochromatin – bands of DNA that do not code of any particular function but can sometimes restrict gene expression

**Blue Bands:** Ribosomes – protein making factories

**Pink bands:** - Where part of old centromere still remains





## Activity Three: Mysterious Chromosomes

1. In the space below, draw or stick in a picture of the human chromosome 2:

2. What are the possible explanations as to why chimpanzees have an extra chromosome:

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3. In the space below, draw or stick in a picture of the human and chimpanzee chromosome 12:

4. Look closely at chromosome 12, what mutation has happened?

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5. Do you think this mutation will have an effect on gene function of chromosome 12?

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6. Why is it important that some mutations happen within a genetic population?

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