

Table 2A. Summary of Genetics Activities

Activity 1: Mitosis and Meiosis

Facts about Mitosis	Similarities	Facts about Meiosis
<ul style="list-style-type: none">• 1 parent• Exact copies of the parent cell• Somatic cells	<ul style="list-style-type: none">• Types of reproduction in living things• Pass DNA	<ul style="list-style-type: none">• 2 parents• Daughter cells are different• Traits from each parent• Sperm and egg

Summary of Meiosis...How does meiosis relate to the viewer's question?

- Meiosis is what splits the cells and gives it half of each parents chromosomes. This relates because it shows that when the chromosomes exchange genetic material in late prophase 1 it is random so the twins DNA have to be exact.

Activity 2: Blood Type

Summary of the Blood Type video...How can offspring be similar to parents? How can offspring be different from parents?

- Offspring can be similar to parents if they have a dominant gene that there parents share with them
- Offspring can be different from there parents if they have a recessive gene or if there parents had a different gene then them

Activity 3: Karyotypes

What is a Karyotype?	How or why are karyotypes used?	What have you learned?
A karyotype is an organized profile of a person's chromosomes	We use chromosomes to determine sex like (XX for female XY for male)	When a egg and sperms chromosomes join together to make 46 its called a zygote

Summary of Karyotypes...How can a karyotype be useful in finding an answer to the viewer question?

The karyotypes would have to be identical if the twins have identical genes

Activity 4: Pedigree Investigator

What is a Pedigree?	What symbols are used in a pedigree?	Why or how are pedigrees used?
the recorded ancestry, especially upper-class ancestry, of a person or family.	A white and black square and circle sometimes with a line through or red dot	are often used after a family member afflicted with a genetic disorder has been identified. Pedigree can be used to see if the disorder runs in the family

Summary of Pedigrees...How can a pedigree be useful in finding an answer to the viewer question?

You can use a pedigree to see if having twins runs in both of the families

Activity 5: DNA Fingerprinting

Summary of DNA Fingerprinting...What is DNA fingerprinting? How can DNA fingerprinting be useful in finding an answer to the viewer question?

is a laboratory technique used to establish a link between biological evidence and a suspect in a criminal investigation.