DNA Fingerprinting Activity

1.Compare the bands of each set of parents to each of the babies and determine which baby belongs to which set of parents. Line up the bands and illustrate which bands each baby inherited from its mother and from its father.

Couple A M F	Couple B M F	Couple C M F	Baby 1	Baby 2	Baby 3
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Figure 1 DNA fingerprint data obtained from three sets of infants and three sets of parents

Analysis and Synthesis

- (a) Identify which baby belongs to which set of parents.
- (b) Explain why not all the bands in the mother's or father's profiles have a counterpart in the baby's DNA profile.
- (c) List other examples where DNA fingerprinting could be used to identify an individual.
- (d) Explain why blood typing may not be a viable method of determining which baby belongs to which parent.
- (e) Identify the largest DNA fragment on the gel. Identify the smallest DNA fragment on the gel. $\,$