

Propositions on Genetic Engineering: Notes and Votes
Integrated Science 4

Name: _____

- For each proposition, take notes on the scientific information presented by the:
 - Legislative Analyst - Note the scientific background required to understand the proposition.
 - Proponent - Note the scientific information relevant to supporting the proposition.
 - Opponent - Note the scientific information relevant to opposing the proposition.
- Use your notes to **Vote** on each proposition.

• **Genetic Evidence: DNA fingerprinting - Proposition G: Allow the use of genetic/DNA evidence in the California justice system.**

Analyst (science background)	Proponent (supporting science)	Opponent (opposing science)
Def: accurate sim/dif btwn uses crime Bio Divers use How: extract/Map	Knowledge - prepare - Δ life style	depends on Equip And exp. - degrades over time
Vote: <input checked="" type="checkbox"/> Pro or <input type="checkbox"/> Con		

Gene Therapy
 • **Human Therapeutic Cloning - Proposition E: Allow any research in the area of human therapeutic cloning.**

Analyst (science background)	Proponent (supporting science)	Opponent (opposing science)
gene therapy uses genes to treat/prevent disease Replace bad gene (mutated) w/ good.	- Cure not just treatment	- BAD Religion (against) - Black Market - Damage good cells - \$\$\$
Vote: <input type="checkbox"/> Pro or <input type="checkbox"/> Con		

• **Patenting Genes - Proposition J: Allow the exclusive ownership of genes and/or organisms developed for the purpose of gene therapy, drugs, gene fragments, SNP's (Single nucleotide polymorphisms; used as molecular markers), gene tests, proteins and stem cells.**

Analyst (science background)	Proponent (supporting science)	Opponent (opposing science)
Patent on a specific gene seq. to preventing copy/mg/selling/using of genes ↳ like copy right goal: hides info from other co.	- Broaden Research - prevents duplication - scientists to share - to treat diseases	- DNA product of Nature not human owned - Utility: • Variation unfair • EPO → Billions could evolve more of seeds
Vote: <input type="checkbox"/> Pro or <input type="checkbox"/> Con		

• **Genetically Modified Foods - Plants & Animals - Proposition H: Allow planting/use of genetically modified plant species in public food supply. Provide funding for increased research on genetically modified livestock species (increase food supply).**

Analyst (science background)	Proponent (supporting science)	Opponent (opposing science)
enhance desired traits ex: star link	increase resistance ↑ yield ↑ health soil conservation	- antiBiotic resistance - ethics - labeling not req. - Safety
Vote: <input type="checkbox"/> Pro or <input type="checkbox"/> Con		

• Reproductive Cloning of Endangered Species - Proposition F: Allow the state to provide funding for reproductive cloning of endangered species.

Analyst (science background)	Proponent (supporting science)	Opponent (opposing science)
<ul style="list-style-type: none"> • Make identical twin • How to: Video Remove nucleus and put in new cell + zap <p>Vote: <input type="checkbox"/> Pro or <input type="checkbox"/> Con</p>	<ul style="list-style-type: none"> - Same critter to run tests - Med. Research - Bring Back extinct sp - Religious value 	<ul style="list-style-type: none"> - \$\$\$ - Not 100% safe - does not replace habitat - ↓ sp variation

↳ Dolly ✓

- panda as icon

↳ Birfu Defects

1 disease could wipe out whole pop.