

# PERFORMANCE DESCRIPTORS FOR MASTERY

## 11TH GRADE SCIENCE/BIOLOGY

### Nature and Application of Science:

#### SC.PD.11.1

##### Mastery

Biology students at the mastery level in the nature and applications of science:

implement safe practices as they design, conduct, and revise experiments and base conclusions on observations and experimental evidence; and

relate science-technology-societal issues while using a variety of sources to construct and defend their solutions.

### Students will:

- Demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists.
- Demonstrate the ability to use the inquiry process to solve problems.
- Relate science-technology-societal issues while using a variety of sources to construct and defend their solutions.



### Content of Science:

#### SC.PD.11.2

##### Mastery

Biology students at the mastery level in content of science:

investigate the chemistry of cellular processes and biological molecules and relate structure to function in various cells, organisms, and viruses;

analyze the flow of energy in cells, organisms, and the environment;

analyze cellular reproduction processes and determine probable offspring by applying Mendel's Laws of Genetics;

use DNA and RNA models to explain protein synthesis, mutations, and gene therapy, and

determine how changing environmental factors disrupt the interrelationships of organisms within an ecosystem and alter energy flow.

### Students will:

- Demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives; demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.
- Apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.



## 11TH GRADE SOCIAL STUDIES

### Geography:

#### Performance Descriptors

##### Mastery

Eleventh grade students at mastery level in geography:

draw conclusions about the causes of changing international boundaries before and after wars since 1914;

assess population growth, both natural and immigration; and

compare and contrast the decisions and policies related to human environmental interactions.

### Civics:

#### Performance Descriptors

##### Mastery

Eleventh grade students at mastery level in civics: compare and contrast citizens' responses to governmental decisions;

analyze U.S. and world conflicts and evaluate their resolutions;

evaluate major U.S. court cases and their relationship to fundamental democratic principles;

justify the duties of citizens and evaluate the importance of fundamental democratic values and principles;

examine global challenges of the post 9/11 world and predict problems of the future; and

participate in a volunteer service project.

### Literacy:

#### Performance Descriptors

##### Mastery

Eleventh and twelfth grade students at mastery level in literacy:

cite textual evidence; summarize the relationships; evaluate explanations acknowledging where the text leaves matters uncertain;

determine how the meaning of a key term is refined over the course of a text; evaluate differing points of view;

evaluate multiple sources presented in diverse formats and media; evaluate author's premises, claims, and evidence; integrate information, noting discrepancies among sources;

read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently;

compose arguments and informative/explanatory texts; develop the topic with significant details to create a unified whole;

use technology to develop, strengthen, publish and present clear and coherent writing and update in response to ongoing feedback, including new arguments or information;

conduct short and sustained research projects synthesizing multiple sources; assess the strengths and limitations of each source; avoid plagiarism and overreliance on any one source; and

write over extended time frames for research-based projects and shorter time frames for a range of discipline-specific tasks, purposes and audiences.

### Economics/Personal Finance:

#### Performance Descriptors

##### Mastery

Eleventh grade students at mastery level in finance:

analyze the U.S. economy, including the effects of various wars, executive initiatives and legislation; examine U.S. economic philosophy during the 1920s and 1930s and relate it to the concept of supply and demand;

compare and contrast the lack of regulations on banking and securities in the 1920s and 1990s and discuss the role of consumerism in the U.S. economy; critique various economic systems and their roles in world conflicts;

identify developed countries and developing countries and determine the standard of living of their citizens; explain how the U.S. national debt affects world economic systems.

### History:

#### Performance Descriptors

##### Mastery

Eleventh grade students at mastery level in history:

draw conclusions about the various events associated with World War I and their effect on the U.S. as a world power;

critique significant events that defined the Roaring '20's and their effect on culture, economics, and politics;

examine the economic, social and political effects of the Great Depression upon the U.S.;

cite evidence of significant events and ideas connected with historical totalitarian aggression, the fight for human rights and the spread of democracy; assess events and ideas to determine the vested interests of either U.S. democracy or Soviet Union communism;

summarize the struggles and progression of the fight for civil rights by various groups in the U.S.;

compare various strategies of activists in social conflicts of the second half of the 20th century in the U.S.;

draw conclusions about the effectiveness of U.S. Foreign Policy dealing with global economic issues since 1990; and

critique the involvement of the U.S. in the post 9/11 world, including the war on terrorism.



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