

OVERVIEW

BOARD GAMES IN THE CLASSROOM

Science Content Area



CYTOSIS: A CELL BIOLOGY BOARD GAME

Age: 10+
50 to 75 minutes
2 to 5 Players

GENIUS GAMES
John Coveyou

OBJECTIVE: Players utilize the organelles within a cell to collect cellular resources such as mRNA from the Nucleus, Lipids from the Smooth E.R., ATP from the Mitochondria, etc. and score points when they use these resources to complete Hormones, Receptors or Enzymes!

VOCABULARY USED

Cell, Enzyme, Hormone, Cytoplasm, Plasma membrane, Nucleus, Smooth ER, Rough ER, Golgi Apparatus, Mitochondria, Receptor, Translation, mRNA, Protein, Lipid, Carbohydrate, ATP, Ribosome, Vesicle

COMMON CORE SCIENCE STANDARDS

Structure and Function Unit: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Structure and Function, Systems and System Models, Stability and Change.

MYP/DP, 21st CENTURY SKILLS

MYP: Knowing and Understanding, Change, Relationships, Systems, Models, Function, Inter actions, Patterns. **21st Century:** Collaboration, Knowledge Construction, and Self-Regulation, Skilled Communication.

NGSS: SEP: Developing and Using Models. Asking questions and defining problems, Obtaining, evaluating, and communicating information, Analyze and interpret data for patterns: Emphasis is on finding patterns of changes in the level of complexity of anatomical structures. **CCC:** Structure and Function, Systems and System Models, Stability and Change. **DCI:** HS-LS1-1, LS1-2, LS1-4, LS1-6, LS1-7 From Molecules to Organisms: Structures and Processes.

