I want to create an Embodied Learning Activity to explore …

… a system involving interactions or transformations.

Example(s): Charges moving through an electrical circuit with a battery and a light bulb. Phases of the moon, with light from the sun and motion of the earth and moon.

An embodied learning could involve…
… multiple students working through a role-playing activity,
… gestures to indicate interactions or transformations, or
… students defining ways to indicate interactions or transformations.

… a complex physical structure, or the behavior of a complex structure.

Example(s): DNA, a crystal lattice of atoms

An embodied learning approach could involve…
… multiple students working together to “build” the structure, or
… multiple students working together to model dynamic properties of the structure.

… something that needs to be viewed from multiple perspectives.

Example(s): molecular structures

An embodied learning approach could involve…
… a single student using their body (arms, fists, etc.) to model and play the role of the object,
… a single student using gesture to model the object and changes in orientation of the object, or
… multiple students taking on roles of “object” and “observer” to consider different perspectives.

… phenomena where the magnitude and/or direction varies at different points

Example(s): wind currents, pressure or temperature gradients

An embodied learning approach could involve…
… multiple students at different locations in the room who either use arrows, or use their bodies to indicate magnitude and or direction.
… a single student who moves to different location and use arrows, or use their bodies to indicate magnitude and or direction at each location.

… something far too abstract for an embodied learning approach.

Example(s): poetry meter, time evolution of a 2-state complex system

An embodied learning approach could involve…
… creating a map from an abstract concept to an embodied action or a gesture.
… translating one concept into a motion or movement gesture, and other concepts into contrasting poses or gestures.
… an embodied representation that can help students to break down or interpret an otherwise abstract concept in component parts.
References:


