

# Ideas for Brainstorming

*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.

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