

MOVEMENT *forces*

SCIENCE AND DANCE



CONTENT	FINE ARTS
3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	DA:Cr2.1.4 a. Manipulate or modify choreographic devices to expand movement possibilities and create a variety of movement patterns and structures. Discuss movement choices.

Materials:

- space for movement
- variety of music for movement
- audio system for playing music
- boxes, scales, recycled materials for the weight/force experiments
- paper, pencils

Pre-assessment:

Provide students with a variety of examples of balanced and unbalanced forces (ie: scales, pushing on a box from various sides or from both sides simultaneously). Ask students to write their observations about what happens depending upon the type of force they are using in each experiment.

Engagement:

Work through the [Force Field strategy](#) with students, focusing on how movements change based upon the amount and type of weight being used with the body.

Activity:

Compare and contrast the similarities and differences between the beginning experiments and the Force Field strategy movements. What was the cause and effect of changing the type and amount of force in both activities? What does this tell us as scientists? What does this tell us as dancers?

Working in pairs, have students design a short dance sequence that shows both balanced and unbalanced forces. Students must use high, medium, and low levels of space and must share at least two different types of weight with their bodies. Additionally, their dance must reflect the cause and effect relationship between balanced and unbalanced types of force.

Closing:

Students will perform their dance sequences in their assigned pairs.



Student Response

As each pair perform their dance sequences, students in the audience must identify the balanced and unbalanced forces being used, what type of weight is being used in each movement and the effect of this choice on the partner. This can be a written checklist or form.

