

High School Practice Test Items

Item	Grade	PE	SEP	DCI	CCC	DOK
29	High School	HS-PS3-5	2. Developing and Using Models	PS3.C Relationship Between Energy and Forces	2. Cause and Effect	2

ILCS: Quantify the change in energy associated with the appropriate change in the relative orientation of the two objects.

Objects A and B, with opposite charges of $+q$ and $-q$, respectively, are initially held in position at a fixed distance apart. Object B is then released and allowed to move relative to object A.

If gravitational forces are negligible, which statement describes what happens when object B is released?

- Ⓐ Object B moves toward object A, and the electric potential energy of the two charged objects increases.
- Ⓑ Object B moves toward object A, and the electric potential energy of the two charged objects decreases.
- Ⓒ Object B moves away from object A, and the electric potential energy of the two charged objects increases.
- Ⓓ Object B moves away from object A, and the electric potential energy of the two charged objects decreases.

Key: B (1 point)