

# ARE YOU WORKING?

## Materials

4 Books

## What To Do

Stand and hold your arms out in front of you at waist level, palms up.

Have your partner stack two books on your hands, one on each hand. Lift the books to about shoulder level, then lower them. Now try raising them overhead. When your hands are overhead, are you working harder than when you raised them to shoulder level? Describe your observations on the answer sheet.

Lower the books again. Have your partner put two more books on each of your hands, so you're holding four books. Try to raise them to shoulder level. Are you pushing harder (using more force) than when you were holding only two books? Describe your observations on the answer sheet.

Hold the four books at shoulder level until your arms get tired. Are you exerting force? Do you think you are doing work in these situations? What is the work being done on? Describe your observations on the answer sheet.