Lesson 1 Work and Power

Scan *Lesson 1. Then write three questions you have about work and power in your Science Journal. Try to answer your questions as you read.*

Main Idea

What is work?

I found this on page _____.

Details

Complete *the definition of* work.

I found this on page _____.

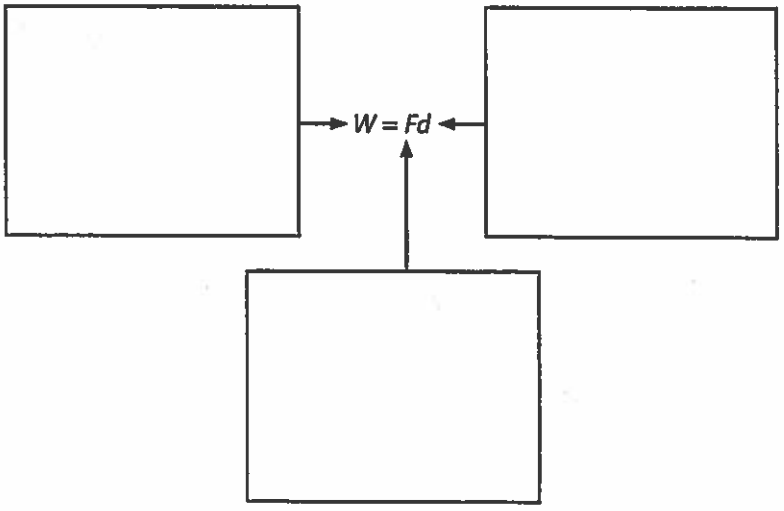
Analyze *the scenarios. Circle the scenarios that describe* work *being done.*

A girl kicks a soccer ball.	A boy pushes against a brick wall.
A lamp sits on a table.	A second hand moves around a clock face.

Calculating Work

I found this on page _____.

Identify *the components of the* work *equation. Include the units for each variable.*



I found this on page _____.

Record *another name for joule (J).*

_____

Main Idea

I found this on page _____.

Details

Diagram *two examples of* work *being done to move a wheeled cart.*

Pushing the cart—applied force and motion in the same direction	Pulling the cart—applied force and motion in different directions

I found this on page _____.

Characterize *the* work *done to lift an object.*

Work to lift an object	=		×	

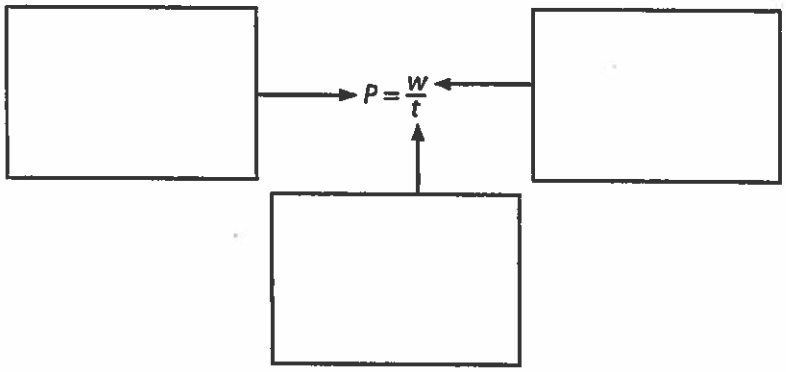
Work and Energy

I found this on page _____.

Describe *how* work *changes the energy of objects.*

Work	Object Moved	How Energy Changes
A boy pushes a dust mop along a kitchen floor.		
A woman lifts a suitcase from the trunk of a car.		

Main Idea	Details
What is power? *I found this on page _____.*	**Define** power.
I found this on page _____.	**Identify** *the components of the* power *equation. Include the units for each variable.*
I found this on page _____.	**Equate** *watts and joules per second.* _____ watt = _____ J/s
I found this on page _____.	**Differentiate** power *and* work.



Work	Power

Analyze It Describe what happens when you push on a refrigerator, but the refrigerator does not move. Frame your answer in terms of work done and energy transferred.