

Physics - Key Stage 3 - Energy

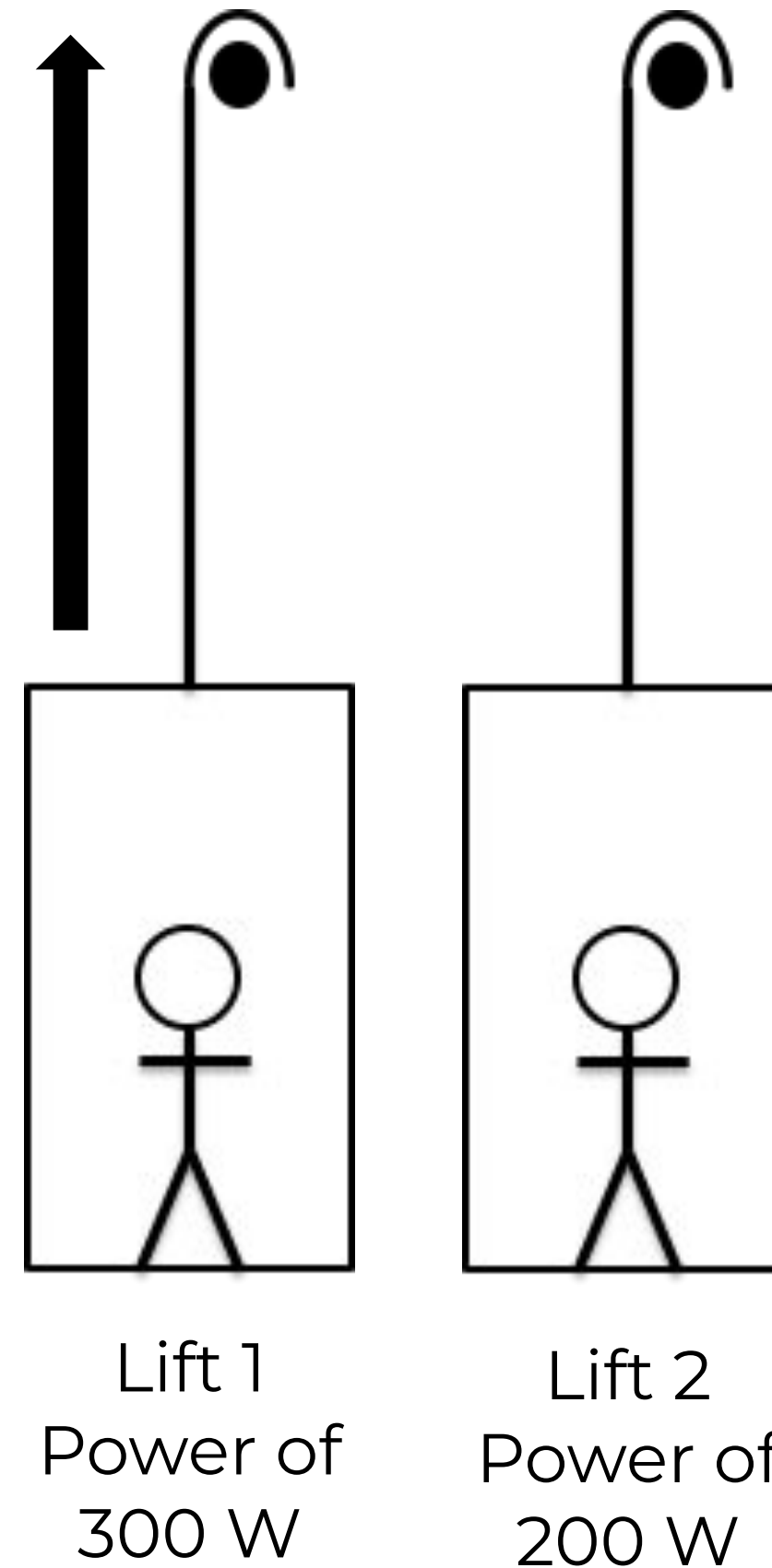
Lesson 10: Power and Energy

Mrs Evans



Independent practice: answer the questions

1. What is the definition for power?
2. Look at the diagrams:
 - a. Which lift is more powerful?
 - b. Which lift will raise the man faster?
 - c. Which lift transfers energy slower?
 - d. Which lift will take more time to raise the man?



Independent practice: complete the table

	mW	W	kW
a	4000	4	0.004
b	___ ? ___	26	___ ? ___
c	170	___ ? ___	___ ? ___
d	___ ? ___	___ ? ___	99



	An oven transfers 450 kJ in 80 s . What is the power of the oven?
V alues	
E quation	
S ubstitute	
R earrange	
A nswer	
U nits	



Independent practice: calculate power for...

Round your answers to the nearest whole number

1. ...a bulb that transfers 300 J every 30 s?
2. ...a phone that transfers 750 J every 25 s?
3. ...a fan that transfers 8653 J every 19 s?
4. ...an oven that transfers 4 kJ every 60 s?
5. ...a toaster that transfers 200 mJ every 50 s?

Scaffolds for these questions, on the following pages

Values

Equation

Substitute

Rearrange

Answer

Units



Question 1	Calculate the power for a bulb that transfers 300 J every 30 s?
V alues E quation S ubstitute R earrange A nswer U nits	



Question 2	Calculate the power for a phone that transfers 750 J every 25 s?
V alues E quation S ubstitute R earrange A nswer U nits	



Question 3	Calculate the power for a fan that transfers 8653 J every 19 s?
V alues	
E quation	
S ubstitute	
R earrange	
A nswer	
U nits	



Question 4	Calculate the power for an oven that transfers 4 kJ every 60 s?
V alues	
E quation	
S ubstitute	
R earrange	
A nswer	
U nits	



Question 5	Calculate the power for a toaster that transfers 200 mJ every 50 s?
V alues E quation S ubstitute R earrange A nswer U nits	

