

Independent School District of Boise City

Technology – Power/Energy/Transportation

Course No. 1604

Open to: 8 One Semester Course

Prerequisite: None

Lab Fees: \$8.00

Content: Students will examine the four main areas of transportation-air, space, terrestrial, and marine. It will be studied how these transportation areas relate to energy conservation and power generation. Lab activities may include electronics, problem solving, computer drafting, and vehicle construction. Vehicle construction activities may include pneumatic or water rockets, and terrestrial, air, or marine vehicles powered by solar, wind, air rubber band, or CO₂. Wind tunnel testing may be provided. Career and consumer information will be presented.

Table of Contents

DESCRIPTION	TIME	APPENDIX
*Note: All activities, as listed, take approximately 17 weeks (leaving one week for finals).		
UNIT 1 – Introductions and Definitions		
What is Power?	1 Day	
What is Energy?		A
What is Transportation?		B
UNIT 2 – Basic Electronics		
Suggested Activity: Small groups with electronics kits	10 Days	C
UNIT 3 – Ground Transportation		
Suggested Activity: CO ₂ Dragsters	5 Days	D
Suggested Activity: Maglev Vehicles	3 Days	E
Suggested Activity: Mousetrap Cars	10 Days	F
Suggested Activity: Train Simulation	10 Days	G, H, I
Suggested Activity: Locomotion (transportation sim.)	10 Days	J
UNIT 4 – Water Transportation		
Suggested Activity: America’s Cup (Sailboat Race)	5 Days	K, L, M
UNIT 5 – Air Transportation		
Suggested Activity: Balsa and Tissue Kites	10 Days	N, O, P, Q
Suggested Activity: Hot Air Balloons	10 Days	R, S
Suggested Activity: Rubber band-Powered Flight	10 Days	T, U, V
Suggested Activity: Air & Water Rockets	5 Days	W, X, Y
Suggested Activity: CO ₂ gliders	5 Days	Z
UNIT 6 – Future Cities		
Suggested Activity: Simcity 3000	10 Days	AA, BB
Suggested Activity: Wind Power		
Suggested Activity: Solar Power		
TOTAL # OF DAYS		100
End of Course Exam		CC