

Science by Design: Construct a ... Boat, Catapult, Glove, and Greenhouse - PB331X

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TERC and NSTA Press : Science by Design: Construct a ... Boat, Catapult, Glove, and Greenhouse - PB331X
before purchasing it in order to gauge whether or not it would be worth my time, and all praised Science by Design:
Construct a ... Boat, Catapult, Glove, and Greenhouse - PB331X:

Launch a new generation of students into catapult- and boat-building plus glove- and greenhouse-making with this newly refreshed resource. Four sets of well-loved activities have been repackaged in one convenient volume that seamlessly combines hands-on experience with intriguing engineering concepts. Perfect for inspiring interest in STEM topics, the activities encourage high school classes to learn by doing. The activities will get your students fully

engaged in meaningful explorations of concepts such as buoyancy and friction (through boats); torsion and elasticity (catapults); heat transfer and insulation (gloves); and plant biology, thermodynamics, and energy transfer (greenhouses). Best of all, Science By Design is written with the needs of time-starved teachers like you in mind. Each of the four units provides thorough explanations, materials lists, cost and timing estimates, and teaching suggestions. You also get ideas for assessment and student portfolios, plus lists of connections to national standards. And if those aren't enough, don't miss the bonus resources called "side roads" off-the-beaten-path investigations that let you and your students delve further into the links between inquiry and design.

The wealth of advice and information should make this book a very useful starting point for anyone who wants to use design challenges to encourage science learning, but lacks experience and confidence. The additional background detail and discussion of principles also give value beyond the immediate context of the activity. --School Science
December 2013