

Keith Pruitt

# Model Kit Report

## Academy Da Vinci Series Model Kits

Recreating Leonardo's idea in model kit form.

Scale modeling is a hobby that can provide hours of fun and satisfaction for kids of any age. While younger kids might not be able to build some of the intricate, hundreds-of-parts kits that are common today, most manufacturers offer some form of basic "snap-together" kits. These kits, with larger parts and less challenging assembly, offer the opportunity to get involved as early as eight years old, and sometimes even younger. Most often, a parent or other adult works with the youngster on the first few kits to get them started and to assist in some more complicated assembly steps. Individuals that build scale models at younger ages are able to learn important skills that will benefit them throughout their lives including reading and following instructions, hand and eye coordination, the proper and safe use of tools and the sense of accomplishment upon completion of a project.

During Thanksgiving week, my stepson and his family usually come from Florida for a visit. Brent Rabern has two children, 10 year old Kaden and eight year old Carley, both at the prime ages for learning to build models. The last couple of years, for some quiet time, I've provided model kits for them to build with either their Dad or with me. Both are extremely bright and inquisitive (aren't all grandchildren like that?) and usually want to know everything they can about both the kit and the subject. This year, we had two kits to build, the Clock and the Catapult from the Academy Models Da Vinci Series, which are based on designs found in the copious writings of

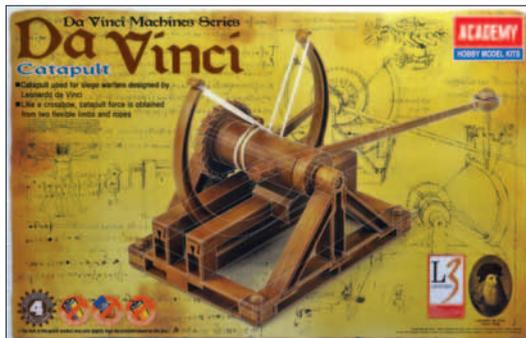
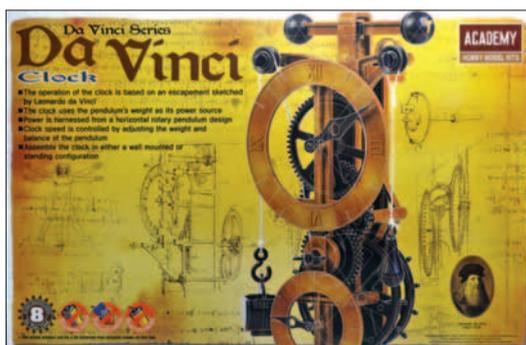


Leonardo Da Vinci. [Most often spelled da Vinci, but for consistency with Academy we'll use Da Vinci - Ed]

Of course, during our afternoon building session, there were questions asked about Da Vinci. Who was he? What did he do? This brought the opportunity to add some educational time while the kids were building the models.

Spending some time on Wikipedia, the kids learned that Leonardo Da Vinci was born in the mid-fifteenth century, and during the Renaissance Period was regarded as one of the most talented individuals alive. Known primarily as the artist who painted the famous Mona Lisa, Da Vinci was also a brilliant scientist and inventor. Incredibly imaginative, Da Vinci left numerous notebooks filled with drawings and designs on a variety of subjects, including a flying machine, parachute, armored fighting vehicle, clocks and weapons, as well as his thoughts on human anatomy and painting.

Carley chose the Academy Da Vinci Clock kit to build. While Da Vinci did not invent the clock, he did design a more accurate version, with a spring and weights that allow the clock movement and speed to be adjusted using the pendulum. This particular kit might be considered too complicated for an eight year old, and is actually targeted for the 10-14 age range, but her father assured her that he would help her build the model. The kit contains 56 parts,



Academy offers an entire line of kits that are based on the drawings of Da Vinci. The kits are easy to build and offer insight into science and engineering.

including molded parts in black and brown plastic, as well as two lengths of string and four metal shafts. The basic assembly begins with assembling the larger gears of the clock mechanism and attaching these to the upright supports. The mechanism continues to take shape as other gears, springs and supports are added. The clock faces and hands are placed in position and then the uprights are fitted to the base. Two optional bases are included, one for a free-standing display and one for a wall-hanging display. Carley chose the free-standing base, but kept the wall base just in case she wanted to hang the clock in her room at home. The strings are threaded into place, and the pendulum attached. The pendulum has spaces for coins (specifically, eight quarters) to be used to provide weight for the pendulum to power the working part of the mechanism. The finished model does work just as a real clock might, with a separate minute hand and hour hand. Once the model was completed, watching the mechanism as the hands moved clickedy-clack around the clock faces certainly made Carley happy. [With a little adjustment to the pendulum a mechanical escapement clock can be extremely accurate. Although not an Academy kit, we have one in that is off by only a minute or so per month – Ed]

Kaden chose the Da Vinci Catapult kit to build. In the original drawings, Da Vinci had imagined a medieval siege engine with gears and a release mechanism on a stable base built of wood. These catapults were used to throw a variety of projectiles at fortified enemy castles or battlefield positions, often with devastating effect. In the original Da Vinci design, the force required to hurl a heavy stone was generated by two flexible wooden arms.

Created from the basic drawings, the Academy kit uses styrene plastic to replicate the structure of the weapon and two large rubber bands to provide the force for launching the plastic boulders. The kit includes 41 parts molded in brown plastic along with the two large rubber bands. Assembly begins with fitting the tension arms of the mecha-



*The kits are easy to assemble, but with any child, adult assistance, especially when using sharp cutters, is recommended.*



*The key to success with any model is to follow the instructions and only remove parts from the sprues as they are needed.*

nism together, and attaching these to the platform as it is built. Next, the release mechanism is attached to the platform, then the legs of the base are assembled and one is attached to the side of the platform. The cocking mechanism and the throwing arm are then snapped together. The remaining leg of the base is attached, trapping the throwing arm assembly between the legs. The two rubber bands are then fitted to the tension arms. One of the plastic parts is a key that can be placed in one of three slots to determine whether the trajectory and distance of the object hurled by the catapult is high, medium or low.

The kit includes three plastic boulders, molded in halves that are snapped together, to be used as projectiles. Once completely assembled, the catapult works quite well and can throw the plastic boulder as far as fifteen feet when the key is inserted into the high trajectory setting. Almost immediately adult supervision came into play as one of Kaden's first targets was his cousin Adam. Now, Adam is a college football lineman, over six feet tall and weighing well over 250 pounds, so it was unlikely that any injury could be caused by the lightweight plastic boulder. Still, this was an opportunity to explain that it is best to follow the kit instructions which state that the projectiles should not be aimed at people, pets, televisions or any breakable objects.

All in all, it was a good afternoon. The kids got some great one-on-one time with their father, they learned something about science and how Da Vinci imagined all his invention designs, they discovered anew a sense of accomplishment in completing their models and they finished up with something that they can enjoy for hours on end. As was said before, scale modeling is a hobby that kids of all ages can enjoy, a hobby that can benefit them in a multitude of ways, and a hobby that can provide hours of fun and educational experience.

The entire series of Academy Da Vinci model kits is available through MRC Model Rectifier Corporation. **HM**