25 Buggy 1.

EQUIPMENT

1 x pre-assembled and drilled chassis
4 x pre-assembled and drilled wheels
2 x axles
1 x 3mm by 25mm bolt and nut
1 x rubber band
1 x pre-assembled catapult launcher

RISKS

Splinters from wood on the chassis and wheels.
Smooth off wood as much as possible.
Warn students of dangers of rubbing their fingers against the wood.
Pierce injuries from axles.
Round off the ends of the steel rods as much as possible.
Warn students of dangers of rubbing their fingers against the ends of the axles.
Advise students to place wheels on the table top when inserting the axles.
Injuries from rubber bands breaking or being released from the catapults.
Advise students of these dangers.

SESSION

1). Students consider what is meant by speed and its units.
Students consider how fast they are travelling by thinking about travelling around the sun
2). Students consider what is meant by acceleration.
Students consider what is needed to cause acceleration.
3). Students introduced to the concept of a catapult launch system.
Students watch video of F18s being launched from an air craft carrier.
4). Students assemble buggies taking note of the risks and dangers involved.
5). Students check their buggies run freely - adjusting as necessary.
6). Students check buggies with catapult launch.
7). Students design and build paper carrier for a small egg (stone!) and test with catapult launch.
8). Competition for best buggy achieving egg carrying and range.

Constructional details for buggy at:-
http://www.ikes.16mb.com/physproj/buggy1.pdf