



Note: If the gravity car is being used for competition at Skills Canada Competition, the following are the specifications:

The only source of energy is the Potential Energy from gravity as the vehicle sits at the top of the track. To fit in the track, the maximum size of the vehicle is 101mm (4 inches) wide, 152 mm (6 inches) high and 304mm (12 inches) long. There is a 600-gram weight restriction on the vehicle. The vehicle can be made from any common materials found in school such as wood, metal, plastic and recycled materials from electronic devices. The vehicles must be made from scratch by the students and not be constructed in any form from any type of kits.

EXTENSION CHALLENGES

- 1 Design the car after a specific commercial vehicle or favorite toy.
- 2 Research and explore the concept of wind resistance and how that determined their choice for the final finish of the car.

Skills Canada Gravity Car

NOVICE

 APPROXIMATE TIME: 2 1-HOUR CLASSES

TOOLS & MATERIALS

MATERIAL LIST

- Wood glue
- Assorted chunks of 4" x 6" x 12" – maximum dimension
- Welding rod or dowelling for axels
- Water based stain, paint
- 4 old CDs or DVDs

TOOL LIST

- Sandpaper (increasing grits) - start with 80 and work up to 220
- Sanding blocks
- Clamps
- Assorted files for shaping

PROCEDURE

- 1 Research the Skills Canada Competition specifications and requirements.
- 2 Design, plan and draw your custom design. Simple is often better.
- 3 Create a materials list – Review with your teacher to confirm available materials.
- 4 Build main body — be sure to weigh your body after each adjustment is made to ensure you meet the 600 gram or less requirement.
- 5 Assemble the wheel axles carefully — be sure to allow for adjustments with weight, as well as travel on the track. It is important that the car stays straight on the track.
- 6 Test your vehicle on a track that meets the criteria designed for Gravity Car competitions.



Since 1994 Skills Canada British Columbia has worked with industry, educators, government and labour to promote rewarding and in-demand skilled trade & technology careers to BC's youth. Widely recognized for its annual 18 Olympic-style competitions hosted in communities throughout BC, Skills BC engages over 35,000 students annually in its regional, provincial, national and international competitions each year. www.skillscanada.bc.ca