

SCIENTIST

DESIGN

BRIEF

FOR

THE

CONSTRUCTION

OF

A

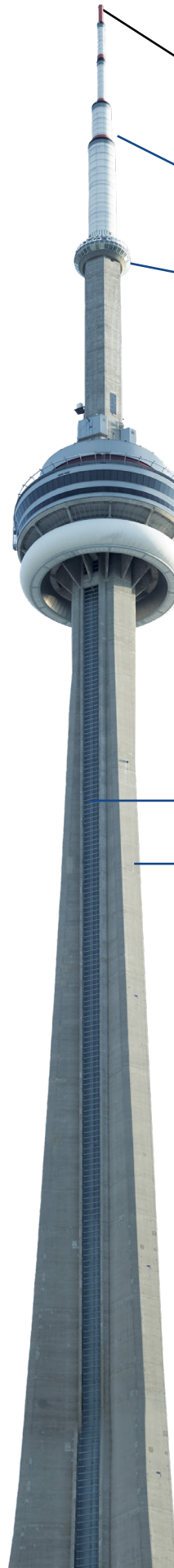
NEW

WONDER

OF

THE

MODERN



Name:

Date:

Full height

553.33m | 1,815ft 5in | 181 storeys

Antenna

The Top

447m | 1,465ft | 147 storeys

EdgeWalk

356m | 1,168ft | 116 storeys

360 Restaurant

351m | 1,151ft | 115 storeys

Main Observation

346m | 1,136ft | 114 storeys

Lower Observation

342m | 1,122ft | 113 storeys

Radome

Elevator Shaft

Tapered Legs

Welcome to the CN Tower!

Your task is to discover the unique features that have made the CN Tower one of the Wonders of the Modern World. With this knowledge you and your team must be able to create a structure that stands just as strong and tall as the CN Tower. You will form teams of 5 that will consist of an Industrial Designer, Architect, Engineer, Builder, and Scientist.

As the *Scientist*, it is your job to assist the Architect and Engineer solve problems posed in building your teams next Wonder of the Modern World. Once you have completed your research, you can reconvene with the rest of your team members to collaborate on the final design and construction of your own structure.

Structures come in many different shapes and sizes, each with its own unique purpose or function. The form of a structure is dependent on its function. Forces acting on the structure and a structures impact on the environment must also be taken into consideration during the planning and design phase. Looking at the city from the top of the CN Tower, identify 3 different types of structure that you can see and complete the chart below.

Type of Structure	Function	Probable forces to be considered	Impact on society, environment, economy	Form
Bus	Transporting large number of people in one vehicle	Wind, rain, weight, weight distribution, etc	Less cars on the road means energy conservation, provides public with a means of getting around	Low centre of gravity, long, narrow