Size and desigr	1
Ask yourself	 How much workspace do you need? Is an eating area in the kitchen important? What are the traffic patterns? Is there adequate storage space? Does the kitchen meet the needs of everyone in the household including anyone with special needs, extended family and guests?
Consider your options	 Plan thoroughly before you start. Sometimes a simple reorganization of the space will solve many of the shortcomings of older kitchens. Consider an addition or adding space from adjoining areas to meet your space and function requirements. Use a professional designer to help you design a plan to best meet your existing and future needs.
and if you don't	 You will have to live with the results even if they don't meet your needs. A poor layout will seriously detract from your enjoyment of the renovation. The layout may not be flexible enough to meet existing or future demands for space, storage and anyone with special needs such as wheelchair accessibility.

Fixtures and appliances	
Ask yourself	 Do the existing fixtures and appliances have years of useful life left? Do you like the style and features of your appliances? Are they energy-efficient? Is there adequate general and task lighting?
Consider your options	 Replace or repair worn out appliances or fixtures. Familiarize yourself with available products and options. Choose efficient fixtures that will reduce water and electricity consumption. New kitchen appliances carry an EnerGuide label identifying their energy efficiency rating. Update lighting so that it provides the brightness that you need. Compact fluorescent light fixtures are four times more efficient than standard incandescent bulbs.
and if you don't	 Old fixtures may have to be replaced later and the new fixtures may not fit into the spaces allowed. This may involve further modification of cabinets or room layout. If you don't do your homework, you may find more appropriate, appealing appliances or fixtures after you have completed the work.

•	Outdated appliances and lighting usually mean higher ongoing energy costs.
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Cabinets and c	ountertops
Ask yourself	 Are existing cabinets or countertops damaged? Do you like the style of the cabinets and countertops? Is there enough storage and workspace?
Consider your options	 Replace or repair damaged or outdated cabinets or countertops. Install additional cabinets or countertops to meet your work needs. Consult with a kitchen planner to organize storage and workspace more efficiently.
and if you don't	 Damaged, hard-to-clean countertops can harbour bacteria. The kitchen may be less functional and an unappealing work and living space.

Structural problems	
Ask yourself	 Are there any existing structural deficiencies in this area or nearby areas of the house? Do any structural walls or lintels need to be removed? Will installation of new windows or doors require special structural details? Are the walls, ceiling, floor or basement areas well-insulated and air-sealed to provide a comfortable energy-efficient space?
Consider your options	 Carry out a complete inspection. You may want to hire an expert. Repair, strengthen or replace structural components so they can carry the new loads. Insulate and air-seal the building to provide warm interior surfaces and a draft-free living space. Remove wall coverings, when possible, to properly insulate and install a sealed air and vapour barrier. The open wall cavities will also make it easier to install new wiring, plumbing and other services.

and if you don't	 Structural deficiencies can lead to cracked finishes, floor vibration, bowing or displacement of walls, floors or roof structures and possible structural failure. Exterior walls that are poorly insulated and not air-sealed will lead to continued high energy costs, possible condensation problems and discomfort in the living space.
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Moisture	
Ask yourself	 Do any of the finishes have moisture damage? Is there visible mold growth on any surfaces? Are there any water stains? Is there blistered or peeled paint? Is any of the caulking or grout cracked or missing? Has there been condensation on windows, wall or ceiling surfaces?
Consider your options	 Determine the source of the moisture. It may be from building or plumbing leaks or from condensation of humidity on cold surfaces. Clean up visible mold growth according to CMHC guidelines. Insulate, air-seal and use energy-efficient windows to provide warmer inside surface temperatures. Repair or replace all deteriorated finishes or structural components. Maintain caulking, grout and flashings to prevent water access to the building structure. Minimize moisture sources and ventilate to control high humidity.
and if you don't	 Unsolved water damage problems will continue and lead to further deterioration of the building or newly renovated areas. Mold growth caused by excess moisture can be a serious source of IAQ problems. Superficial cleanup or hiding of moisture damage behind new finishes will allow deterioration to continue.

Plumbing and	electrical
Ask yourself	 Is the electrical service adequate for the number of outlets and circuits required and for future expectations? Does the existing plumbing service work well? Is there adequate water pressure? Do the drains flow quickly? Are there any leaks or evidence of water damage?

	• If the house is pre-1950, are there any lead or galvanized steel water pipes?
Consider your options	 Have a professional electrician assess the electrical service and your needs. Upgrade and repair the electrical service and wiring as required. Repair any plumbing leaks and upgrade the existing service as required. Equip outlets near the sink with ground fault circuit interrupters to prevent shocks. Replace any lead or corroded metal water pipes.
and if you don't	 An undersized electrical service can lead to circuit overloads and the constant jockeying of countertop appliances. Inadequate or leaky plumbing will cause ongoing inconvenience. Leaks can lead to mold growth and IAQ problems. Even minor leaks around plumbing joints, gaskets and sinks will damage new materials. Lead piping and corroded metals can contaminate water.

Heating and ventilation	
Ask yourself	 Is the room comfortable and easy to heat? Does excess condensation form on windows or other surfaces? Is there an exhaust fan that is ducted to the outside? Is the air fresh and clean? Are there lingering musty smells? Would a large exhaust fan lead to backdrafting of an oil or wood stove, furnace or water heater?
Consider your options	 Make sure that there is adequate heating to the area. Poor insulation levels and high air leakage will make the area hard to heat, drafty and uncomfortable. Install an exhaust fan with adequate airflow capacity, 50 L/s (105 cubic feet per minute minimum). The fan should be quiet with a sound rating of 3.5 sones or less and be vented to the outside. Choose ventilation appliances that are certified by HVI (Heating and Ventilating Institute). Install a whole house ventilation system if possible. Consider one that includes heat recovery. Use a licensed installer for heating and ventilation work.
and if you don't	 The heating system may not be able to maintain a comfortable temperature in the living space during cold, windy weather. You may experience lingering odours and excess humidity in the house. Large volume exhaust fans can cause backdrafting (smells, smoke or toxic gases escaping into the house) of combustion equipment such as fuel burning

fireplaces, furnaces, wood stoves and water heaters that use oil, natural gas of propane. A trained technician can remedy or avoid this health and safety problem.
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Finishes	
Ask yourself	 What is the condition of current finishes? Do they need to be replaced because of wear or styling? What finishes will be durable enough for the intended use, for example countertops, floor covering and wall finishes? Are the planned materials and finishes low odour and low in chemical emissions such as volatile organic compounds (VOCs)? What preparation is required for the new finishes? Are special skills needed to install the finishes?
Consider your options	 Decide what finishes need to be repaired or replaced. Do your research. There are many new and different products on the market. Vinyl, ceramic and hardwood flooring all have different installation requirements. Choose products that are designed to meet specific needs e.g., water resistance, durability or cleaning. Choose low odour materials, finishes and adhesives to minimize effects on Indoor Air Quality (IAQ). Use a qualified installer for products that require special installation conditions or skills.
and if you don't	 Improper installation of finishes will void the warranty and may provide unattractive results. Cracked ceramic tile or grout are common problems resulting from inadequate subfloor strength and stiffness. Hardwood flooring can shrink or swell if it is not allowed time to condition to the humidity of the space before installation or if it is not sealed properly. Potentially harmful emissions from new materials can linger for long periods within the house.

Rewards

- Repairing structural problems, fixing leaks and making sure that all services are adequate will prolong the life of your house and make the renovation look and work better.
- By using low odour and easy to clean finishes, you will improve the IAQ of your home. Reducing condensation and controlling humidity will help to prevent mold growth.
- Thorough planning will result in a warm, comfortable, useable kitchen with good lighting and plenty of work and storage space.
- A well thought out and executed renovation will increase the value of your house.

Skills to Do the Job

A homeowner with good fix-it skills may be able to do some of the work on the renovation such as:

- Removing old fixtures and finishes.
- Caulking or repairing roof and window leaks.
- Installing insulation.
- Air-sealing the building.
- Painting.

Consider a professional renovator for structural changes, finish work or to undertake the complete project management. If you are doing it yourself, you will still need to hire subcontractors to carry out the electrical, plumbing, heating and ventilation work. Depending on the nature of the project, you may also need to hire other tradespeople to do roofing, window and door installation, install cabinets and flooring or paint and do drywall finishing. Remember to obtain all necessary permits, sign a written contract, ensure that workers use safe working practices, have professional licenses where required and are covered by workers' compensation. Protect yourself, your family and your home.

Use the Kitchen Assessment Worksheet to record the present condition, any problems and to estimate costs for your kitchen renovation.

Kitchen Assessment Worksheet				
Room Dimensions				
	Present Condition/Problems	Options or Upgrades	Cost	

Ceiling and Finishes		
Walls and Finishes		
Floor and Finishes		
Room Lighting		
Task Lighting		
Windows		
Doors		
Cabinets, Countertops and Hardware		
Sink and Faucets		
Appliances		
Plumbing		
Electrical Services		
Heating		
Ventilation		
Other		

Costing Your Project

The cost of the renovation work will depend on the condition of the existing structure, the extent of the work to be done and local labour and material prices. Costs of finishes and fixtures vary widely. A good budget checklist will help you to develop a realistic cost for the project before you start. Some of the items to include are:

Design changes.

□ Structural considerations.

- Fixtures and appliances.
- Moisture damage and deteriorated finishes.
- Floor and wall finishes.
- Plumbing and electrical problems.
- Heating and ventilation.
- Permit and inspection costs.
- □ Waste disposal