

HORTICULTURE

Let's Landscape

A Guide for Leaders and Youth Leaders

Ontario 4-H Council

*Ontario Ministry of Agriculture,
Food and Rural Affairs*

4-H 1500 98 LE

The Ontario 4-H Program provides opportunities
for the personal development of youth.

THE 4-H PLEDGE

"I pledge:
My Head to clearer thinking
My Heart to greater loyalty
My Hands to larger service
My Health to better living
For my club, my community and my country."

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LANDSCL

 **KIDS HELP PHONE**
JEUNESSE, J'ECOUTE
1-800-668-6868

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BE A "GREEN" 4-H CLUB

The 4-H program uses a lot of paper. Please help us to reduce our costs, and save a few trees, by remembering these tips.

- Only 4-H members (10-21) and leaders should receive 4-H resources.
- If your club plans to do this project again, keep the resource materials so you don't need to reorder.
- If your club has extra resources, please return them promptly to the Ontario Ministry of Agriculture, Food and Rural Affairs office so they can be used by someone else.

WELCOME TO 4-H

It has often been said that, "Volunteer 4-H leaders are a blend of friend, teacher and parent." What a big order to fill! But you will discover that you have many talents as a 4-H leader. Having an interest in young people and their development and being willing to take up the challenge of 4-H leadership is the first step to success.

This project focuses on landscaping. However, the development of members as individuals is your real goal. You will get to know the club members and where their interests lie very well. Use this knowledge, your own expertise and imagination to help members plan a fun, interesting and challenging club program. And enjoy being a 4-H leader!

RESPONSIBILITIES

Before your project begins:

1. Familiarize yourself with current provincial and local 4-H policies;
2. Attend a leader training session (if scheduled);
3. Advertise the project and organize a club with a minimum of six eligible members and one volunteer leader per club except in cases deemed to be unique and approved by the local 4-H Association; and
4. Review available resources and begin planning the club program.

During the project:

1. Attend each meeting and the Achievement Program;
2. Assist members in planning and presenting the club program;
3. Provide a FUN, learning atmosphere;
4. Ensure the club membership list is completed and registration fees are collected. Forward to the designated person in your area before the second meeting;
5. Order awards and project and name plates once membership list is completed.
6. Help each member set and achieve goals for personal development;
7. Encourage members to work together as a group;
8. Provide guidance in choosing and completing an Achievement Program; and
9. Evaluate the club program. Share the evaluation with the 4-H Association and the Ontario 4-H

Council.

WHAT IS AN ACHIEVEMENT PROGRAM?

- An opportunity for members to share with others the knowledge and skills they have gained during this 4-H project.
- An activity that involves each member in some way.
- A chance to inform the public about the purpose and goals of the 4-H program.

Achievement Program ideas specific to this project are suggested below. Your club may wish to choose one idea or combine a few. Involve club members in selecting a suitable idea and making the necessary preparations.

Contact the local newspaper or radio to tell them about your activity, the date, the time and where it will be held.

Send out a personal invitation to the group you plan to invite to the Program, or send a personal request from your club to visit an organization and present your Achievement Program. Don't forget to include parents/guardians and/or family members.

Invite parents, the public, media and other youth groups to your Achievement Program.

Here are some suggestions. You may wish to choose one idea or a combination of a couple. The type of program should be selected by the second meeting. You may require some preparation time at your meetings prior to the Achievement Program.

1. Have a club display of landscaping ideas and techniques at a local shopping mall, horticultural society show, fall fair, garden center or farmers' market. Members should be on hand to answer questions.
2. Make a short video on information covered by the project. Plan the script and topics to be covered ahead of time. This could include going to a nursery, selecting a woody plant, planting it properly and caring for it immediately afterwards. Or perhaps it could show some interesting landscaping techniques. Show the video at a horticultural society meeting or fall fair.
3. Offer your club's gardening skills to a horticultural or agricultural society, seniors group or a village or town in your area. You could work together to clean up a landscaped area or start a new one. Follow up with a party or barbecue.
4. Organize a local tour of landscaped sites (i.e. homes, businesses, etc.) for citizens of the community. Members could introduce and thank host(s), do advertising and arrange all details. The fee charged could go toward costs of the tour, other club expenses, or for another group project.

4-H CLUB PROGRAM PLANNING

A successful 4-H club doesn't just happen! Careful planning is necessary and very important. As a 4-H leader, you have a responsibility to do the best job you can in providing a fun, learning experience for the 4-H members. Planning will make this a reality.

The 4-H Volunteers' Handbook has lots of valuable information to help you and your members plan a successful club program. Refer to "The 4-H Meeting" section of your handbook for tips on planning successful meetings, effective communication, games, judging and special events. The chart on page 3, of this Guide, can be used to record your

plans.

4-H CLUB PROGRAM PLANNING CHART

MEETING OR EVENT	DATE	TOPIC ACTIVITY OR TASK	PEOPLE WHO COULD HELP	PRESENTATION IDEAS TO CONSIDER

INTRODUCTION

Congratulations on being a leader for the 4-H Landscaping Project! You will be working with a dynamic group of young people who are eager to learn. Without a doubt, you will find it very rewarding.

This guide is designed to assist you in the organization of club meetings. It provides suggestions on how to present the material to your members as well as answers to all of the activities in the Members' Manual. It also notes additional resources that you may find useful. There may be other activities in addition to those suggested which you may wish to include or substitute, depending on individual interest, past experience and available resources.-

Grading and hard surface installation, which are explained later in the project, are very much a part of landscaping, but due to the degree of difficulty in carrying out such procedures, they are not dealt with to any depth in this project.

Your role in directing and assisting the young people in Ontario is invaluable. Your talents, time and energy are appreciated by many.

LEADER'S PLANNING GUIDE

For Meeting One it would be preferable to have a host who has some landscaping done in the yard. A walk through a well-landscaped neighborhood would be an excellent alternative. The members could get a first hand look at many of the facets of landscaping.

Activities of tree/shrub and flower planting are suggested in Meetings four and six. Meeting six also includes a Digging Deeper activity of analyzing the finishing touches in the yard. It would be best to choose a host with an accommodating yard.

A perennial bed grooming activity is suggested in Meeting Five. The host for this meeting should let his/her flower bed become somewhat unkempt if the activity is to be included.

It would be interesting for the members to see home composting at Meeting five too, if possible. A mini-composting experiment is described on page 38 of this Guide. You could suggest that a senior member, as his/her special project, prepare the mini-composting experiment and present it to the rest of the club at Meeting five. The member could supplement the information in the manual with a bit of additional research. It would have to be prepared ahead of that meeting.

SPECIAL ACTIVITIES

Individual clubs will decide if junior and/or senior members will be required to complete a special activity. If you will be doing a special activity here are some suggestions to get you thinking. If you have another idea that's great - just get it approved by your leader(s). Whatever the choice; display, present or share in some way the results of your activity. This could be done at a club meeting, the Achievement Program or another 4-H event.

One project suggestion is to beautify each of their 4-H member gate signs by adding plants.

Otherwise the juniors could do a modified senior project or they could work together on a project

of their choice.

RESOURCES

1. The benefit of a guest speaker(s) or the use of films/videos to present material in an interesting and lasting way cannot be emphasized enough. Remember, the effective use of speakers, resource ideas and activities depends on some PLANNING AHEAD.
2. Several teaching ideas have been suggested in the Leaders' Guide. Some of them may be used as small posters or reproduced on a blackboard, flip chart or overhead transparency for greater impact.
3. OMAFRA publications are available through your local OMAFRA office. OMAFRA videos and films are available through the A.V. Library, OMAFRA, 1 Stone Road West, Guelph, Ontario, N1G 4Y2 1-888-466-2372, extension 6-3682 FAX (519) 826-3358 and arrange for these well in advance.
4. A useful resource may be Master Gardener volunteers who offer free advice about growing plants in many communities. Contact an OMAFRA office for more information.
5. Services you may wish to use are the Pest Diagnostic Clinic at the University of Guelph for Meeting five and soil analysis services for Meeting four. Further information is available from your OMAFRA office.
6. Home gardening magazines such as "Harrowsmith" and "Canadian Gardening" and seed or nursery catalogues are helpful to have at all meetings.
7. A CD-rom on Plant Identification and Selection is available for a fee of \$25.00 from Canadian Nursery Trades Association, 7856 Fifthline S, R.R.#4 Stn-main, Milton, Ontario, L9T 2X8 (905) 875-1399

FEEDBACK

The 4-H Resource Development Subcommittee of the Ontario 4-H Council reviews and evaluates 4-H resources. Comments and suggestions about 4-H manuals and guides are always welcome. They may be sent to the following address:

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At the bottom of the table of contents page in the Members' Manual you will see the Kids Help Phone logo and number. Kids Help Phone is available to over 7 million children and teenagers throughout Canada.

It is a national, bilingual, confidential, toll free helpline staffed by paid, trained professionals. In response to the problems and concerns of our youth, Kids Help Phone provides a listening ear, emotional support, counselling, information and referrals. Children and teens from anywhere in Canada can call anonymously 24 hours a day, 365 days a year.

Children and teens can call about anything that is bothering them including - abuse; drugs; alcohol; conflicts with parents, friends or teachers; pregnancy; sexuality; suicide; or parental separation and divorce.

Please mention this number to your members and explain what it is for. Make sure they know that it is free and they don't have to give a name or address.

<http://kidshelp.sympatico.ca>

The Kids Help Phone answers 1500 calls a day... 2500 more get a busy signal. If you or your club or someone you know would like to make a donation to the Kids Help Phone, call 1-800-268-3062.

MEETING ONE

A LOOK AT LANDSCAPING

SPECIAL NOTES FOR THIS PROJECT

1. The Members' Manual has been designed as a reference source. Encourage members to leave their manuals closed for most of the meeting, allowing them to observe, learn and take part in the discussion and other activities. It is **not necessary to read** all the information given in the Members' Manual during the meeting. The page numbers in this Guide refer to the Members' Manual unless otherwise indicated.
2. You are free to change the order of meetings and information if you like. **Also, remember if you do rearrange the order of meetings, you might need to reorder the Before the Next Meeting Activities so that they fit with the Roll Calls.** The schedule of meeting dates can be recorded on page 3.
3. **Remember to Refer to Your 4-H Volunteers' Handbook** - You will find many useful tips and ideas covering topics such as program planning, successful meetings, parliamentary procedure, effective communicating and presentation methods. Refer to your Volunteers' Handbook as you plan meetings. If you do not have a handbook, please contact your 4-H association.

Getting Started (15 minutes)

1. Begin with the 4-H pledge.
2. Welcome the members. Introduce leaders. Have members introduce themselves (if not already done). Introduce the youth leader (if this has been decided). Ensure that everyone has a name tag (optional).
3. Complete membership list.
4. Outline the opportunities members have such as taking part in the local fairs, 4-H Go For The Gold, 4-H Members' Conference etc...
5. Distribute "4-H Project" signs if available.
6. Distribute the Members' Manuals.
7. Give a brief summary of what club is about and topics covered.
8. Discuss the members' requirements for the project (page 1). Outline any expectations you have of the members.
9. Briefly discuss the Achievement Program possibilities.

It is important for everyone to become familiar with the basics of running a good meeting. Review with members the purpose of an agenda as well as the executive's responsibilities. Have the club members elect an executive. The 4-H Volunteers' Handbook and the OMAFRA Factsheet, "Procedures for Meetings," (89-095) may be helpful.

4. **Judging** - Judging tips is an optional activity in meetings one through four in this project. These tips have not been included in the normal one hour meeting time. Each member should have access to a 4-H Judging Handbook (4-H-1550-91) and be encouraged to use it. These can be obtained through your 4-H association.
5. **Optional Activities** - There are meeting activities, meeting mixers and extra topics for discussion that have been listed in THIS GUIDE ONLY. They provide greater detail and information and should be used as a resource for meeting presentation.

OBJECTIVES

This first meeting provides an introduction to parliamentary procedure and landscaping. By the end of this meeting the members should:

1. Be familiar with parliamentary procedure, duties of officers and electing an executive, making a motion and creating a meeting agenda
2. Have an idea of a plant's role in the landscape, and
3. Gain knowledge of why people landscape and what materials might be used.

PREPARATION AND EQUIPMENT

1. Before this meeting, and all meetings, read through the Members' Manual and familiarize yourself with the material to be covered. Try to complete the activities yourself before looking at the answers here. Go over any sections with which you had difficulty.
2. Bring live plants for use in "Let's Look at Plants" (or collect them when the roll call is being done).
3. Magazines with pictures of various plant material, decks, patios, etc. would be an asset at this meeting.
4. Election of officers will be carried out at this meeting. Make sure you are familiar with the procedure outlined in the Manual.

TIME GUIDELINES

A time guideline has been provided for each section of the meeting. Please remember that this is only a guideline. The number of members, their maturity, specific interests and the way the meeting is structured will all influence the duration of specific activities.

IN A NUTSHELL	
Getting Started	15 min
Roll Call	5 min
A Road Map to Good Meetings	20 min
Let's Look At Plants	5 min
Why Landscape?	15 min
Kinds of Landscaping and Decision Making	10 min
	<hr/> 70 min
Optional:	Digging Deeper

ROLL CALL (5 minutes) page 5

The roll call is used as a way of introducing members and encouraging them to participate in the discussions at each meeting. Timid members in particular should be given the opportunity to speak up during roll call.

This first roll call is designed to introduce members and provide you with information on the member's interest in plants.

Roll calls often refer to material covered in the previous meeting. If you re-arrange the order of the meetings, you may also have to modify or add new roll call questions.

A ROAD MAP TO GOOD MEETINGS (20 minutes)

At the first meeting, it is important for everyone to get to know each other and become familiar with the basics of running a good meeting.

The club president will chair the short business section at the beginning of each meeting. Helping members to understand and use the basics of running a meeting will help them to become familiar with the process.

KEEPING YOUR CLUB GOING (5 minutes)

Prior to encouraging club members to take an executive position, they should have a good understanding of each position.

LET'S LOOK AT PLANTS (5 minutes) page 6

This diagram is meant to introduce a plant in general. The role of each plant part is important to note. It would be a good idea to bring in a live specimen of an herbaceous plant to show these parts. A flowering weed would be fine. As an example of a woody plant, you might show members a potted plant such as a lemon or fig tree or a branch of a tree. Either would show the contrast between herbaceous stems and woody trunks.

See the charts following in this manual for the distinction between the two.

Make sure members are familiar with the glossary in their manuals. Help them with any terms they may be unfamiliar with, but encourage them to use the glossary. Compare samples of herbaceous plants and woody plants.

LET'S COMPARE PLANTS (Optional)

Put the words (in the left column, in bold) onto a flip chart or blackboard. Write the plant names (in the right column) in large print on pieces of paper and pass them out to the members or hold up the name so that the members can work as a group to match the plant names with the categories. The object of this activity is to get the members thinking about the different types of plants found in our environment.

Herbaceous Plants

annual

Petunia

}
}
}
}
}
}
}
}
}

list these names on
individual papers

annual

Tomato

biennial

Sweet William

perennial

Dandelion

perennial

Bleeding Heart

Woody Plants

deciduous tree

Maple

}
}
}
}
}
}
}
}
}

list these names on
individual papers

evergreen tree

Cedar

deciduous shrub

Dogwood

ground cover

Creeping Willow

vine

Engleman's Ivy

WHY LANDSCAPE? (15 minutes) page __

Take a walk outside in the landscaped yard or neighborhood to note landscape problems and solutions. You might use the "problems pinpointed" in the list on page __, as some suggestions of what to look for.

At this time a distinction between woody or herbaceous plants could be made and the difference between hard and soft landscape materials could be pointed out. In the event of rain, the following indoor activity would serve as an alternative.

SAMPLE PROBLEMS ACTIVITY (Optional)

Cut out the following "problems pinpointed" (on page 11 of this guide) and put them on a flip chart or blackboard (or just read them out, one at a time, to members for discussion). Cut out the "possible solutions" on page 13 and distribute them to the members so that they can solve the problems.

PROBLEMS PINPOINTED

1. Front lawn slopes too much.
2. No shade for play area.
3. A strong west wind chills the house in the winter.
4. There is no sitting area.
5. People walk across the lawn to the front door, instead of using the walk.
6. Steep bank is too hard to mow safely.
7. Shrubs won't grow or flower well in heavy shade.
8. View of shed is not wanted.
9. Plants suffer dieback each winter. Dieback can be caused by a poor environment ie. poor root growth, water logging or drought. Dieback refers to twigs and branches that do not survive the cold winter.
10. Soil is so dry that nothing seems to grow.
11. Not enough birds visit the yard.
12. The yard is not very colourful in the summer.

POSSIBLE SOLUTIONS

A. Redirect the main walk or plant a shrub bed to prevent short cuts.	B. Build a deck or patio.
C. Plant a shade tree, such as a maple, for cooling effect.	D. Build a retaining wall or a terrace to level the area.
E. Plant a windbreak of evergreens eg. spruce trees.	F. Choose plants that are hardy in area, by checking the Canadian hardiness zone map.
G. Plant a *screen of plant material or install a privacy fence.	H. Plant some flowers or shrubs with variegated foliage where they will brighten the yard.
I. Use plant material with berries such as hawthorn, or Virginia creeper.	J. Choose shade tolerant shrubs such as yew or holly.
K. Choose shrubs tolerant of poor soil.	L. Remove grass, and plant shrubs that hold the soil together.

ANSWERS

1 - D
2 - C
3 - E
4 - B

5 - A
6 - L
7 - J
8 - G

9 - F
10 - K
11 - I
12 - H

KINDS OF LANDSCAPING and DECISION MAKING (10 minutes) page 7

The purpose of these topics is to make the members aware of the different choices when landscaping. Showing pictures of different materials and their uses would be helpful.

BEFORE THE NEXT MEETING page 7

1. Briefly go over this section to ensure everyone is aware of it and to clear up any confusion. An example of a landscape improvement could be something like pruning some shrubs which are blocking a window or walkway.
2. Remind members to bring their Members' Manual to every meeting. Be sure to make clear to younger members that you are available to help them.
3. Senior members will need plain paper and a pencil for sketching if the next meeting is going to be Design with a Purpose.

Remind members to prepare for Meeting Two roll call.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

AFTER MEETING ONE

To prevent dropping out, take time with new members to make sure they know what's expected of them. Make them feel welcome and offer to help them in any way you can. Tell them a bit about the fun things they'll be doing in future meetings.

FOR MEETINGS TWO TO SIX

The president chairs the meeting from the opening (with the 4-H pledge) and directs the secretary to read the minutes of the previous meeting and take the roll call. Discuss any further business (e.g. next meeting, special 4-H or club activities, Achievement Program). The meeting is then turned over to the leaders (or youth leader) to lead the discussion of the meeting material.

MEETING TWO

DESIGN WITH A PURPOSE

OBJECTIVES

Meeting Two examines landscaping ideas in more detail than in Meeting One. By the end of the meeting members should:

1. Understand that there are many different types of landscaping hard surface materials e.g. brick, stone or concrete and plant materials.
2. Realize that the importance of making a landscape plan is to be able to see and examine the feasibility of that plan before starting to dig. Changes are easier to make on paper than in the ground.
3. Have a good idea of how to put landscaping ideas on paper (**senior members**).

PREPARATION AND EQUIPMENT

1. Senior members may practice measuring a foundation and making notes. Have a couple of measuring tapes (and extra pencils and plain paper) on hand in case members forget theirs.
2. Make cardboard or paper labels for the junior members to have for their "We Are The Landscape" activity.
3. Cut out the parts for the "Landscape With Paper" junior member activity.
4. It would make learning about woody plant types more interesting if members could see colored pictures of them. Magazine articles, reference books that you have, or nursery and some seed catalogues are good for this.
5. At the back of the Members' Manual, there is a list of woody plants and their special features. This would be a good meeting to refer to it.
6. Plan ahead for the Meeting Three field trip.

IN A NUTSHELL

Roll Call	5 min.
Types of Plants	5 min.
Features of Plants	5 min.
The Planning Process	15 min.
What Is A Foundation Planting?	35 min.

65 min.

Optional: Flaws in the Landscape Design
 Digging Deeper

ROLL CALL (5 minutes) page 9

TYPES OF PLANTS (5 minutes) page 9

It would be useful to show colorful resource material (as suggested in the preparation section) when talking about this section.

FEATURES OF PLANTS (5 minutes) page 10

Refer members to the list of "Showy Features of Some Trees, Shrubs, Vines and Ground Covers" on pages 48-50 of the Members' Manual to make them aware of this resource and the wide range of plant features available.

Point out that woody plants often have very showy flowers, fruit, bark, and leaves and shouldn't be thought of as just plain green plants.

THE PLANNING PROCESS (15 minutes) page 11

WE ARE THE LANDSCAPE ACTIVITY

For junior members:

Introduce junior members to the concept of planning by letting them pretend that they are parts of the landscape, and act out their parts, ie. spread out arms if a tree, crouch down if a small shrub or flowers.

The stage setting for this activity is a patio, where the hot afternoon sun beats down. Designate an area as the "patio". (This could be as simple as sticks outlining it on a lawn or a large mat on a floor.) Then have members "plant" themselves around the patio.

Write the following landscaping suggestions on paper or cardboard for the members to choose from and to hold as labels. You could make more than one label for each of the following:

shrub	patio planter of flowers
shade tree	patio furniture
vine	privacy fence
flowers	trellis
evergreen windbreak	

Have members take turns choosing a label with a suggestion of what he/she thinks would make the patio attractive and/or more useful. Point out that some suggestions can be combined, eg. vine and trellis/fence. The members can then go and act out their parts around the proposed patio.

You could add problems to solve besides the sun, such as:

- privacy is needed - use a fence or shrubs
- patio is in a windy location - use a windbreak

Other settings could be acted out too. You might get some ideas from the planning sketch on page 12 in the Members' Manual.

For senior members:

The sketches and descriptions (pages 12 to 15 in the Members' Manual) are meant only as a guide. Have members follow along with the appropriate diagrams. Emphasize that it doesn't matter if members "cannot draw"!

WHAT IS A FOUNDATION PLANTING? (15 minutes) page 16

After discussing the ideas behind foundation planting, you could involve members in one or both of these activities:

Measuring a foundation - Using the guidelines on page 24 of the Members' Manual, pairs of a junior and senior member could work together to take the measurements and sketch the foundation area.

OR

Senior members could work alone or in pairs to measure and plot the foundation area, while junior members practice landscape design with the models of the Landscape With Paper activity, provided on pages 23 and 25 in this guide.

Cut out the landscape plants and walks on page 25. Have the members work as a team or in pairs to decide which plants and walk would best suit the house.

The suggested design is shown on page 15 of the Members' Manual. No large trees are included in the foundation planting because they would be too close to the building.

BEFORE THE NEXT MEETING page 19

1. Make sure members know how to do their foundation sketch on graph paper.

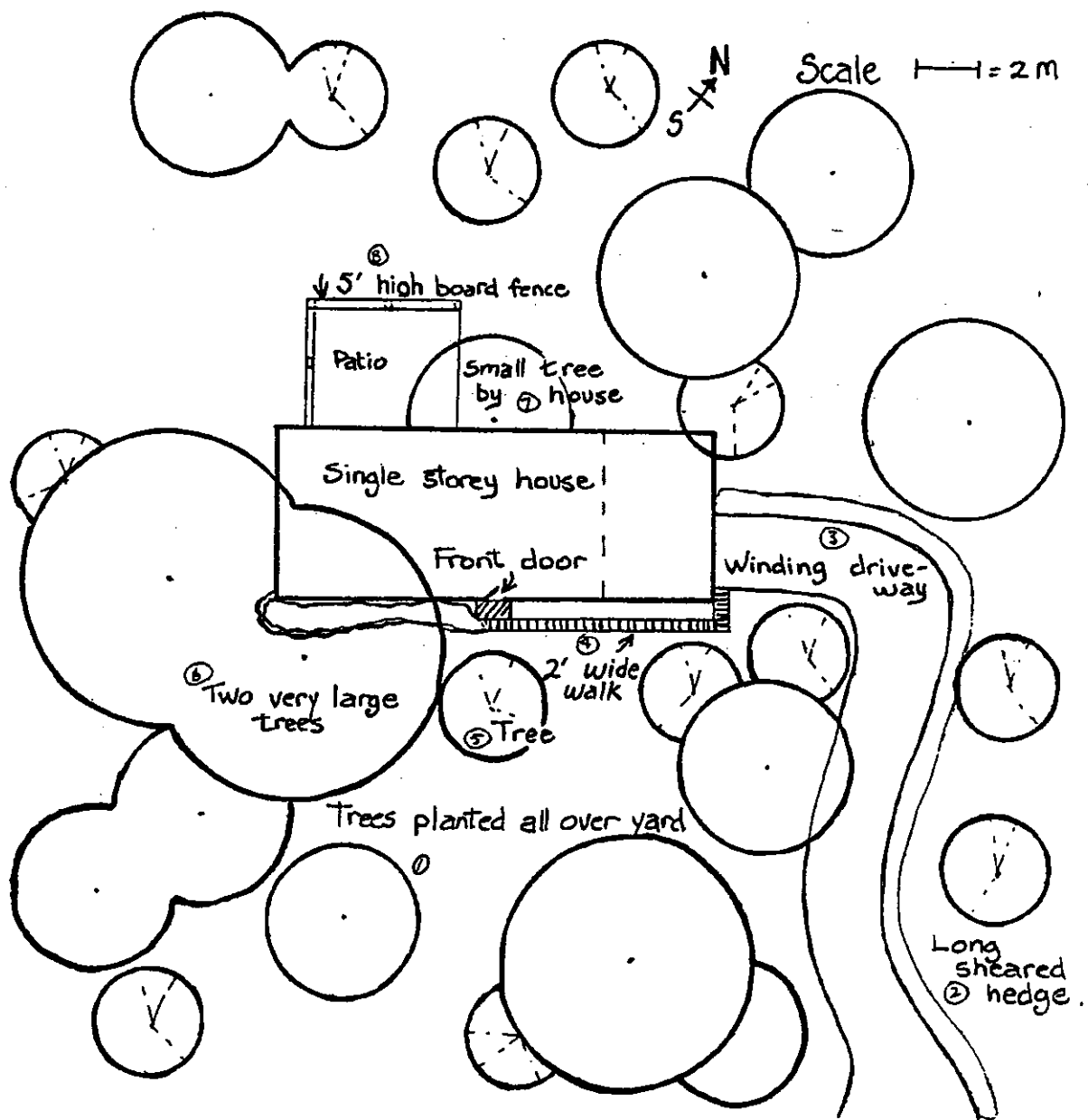
REMINDER

Meeting Three is the field trip. Plan your meeting place and transportation. Remind members to tell their parents where they will be.

FLAWS IN THE LANDSCAPE DESIGN (Optional) Page 20 - This Guide

This activity shows the importance of sketching a plan to work from. A person has sketched this design and upon checking it has discovered several flaws - ones that will cause high maintenance or make the design impractical. Answers - pg 21. Photocopy the sketch below for each member.

Can you recognize the eight flaws? Use the numbered clues and record your answers on the back.

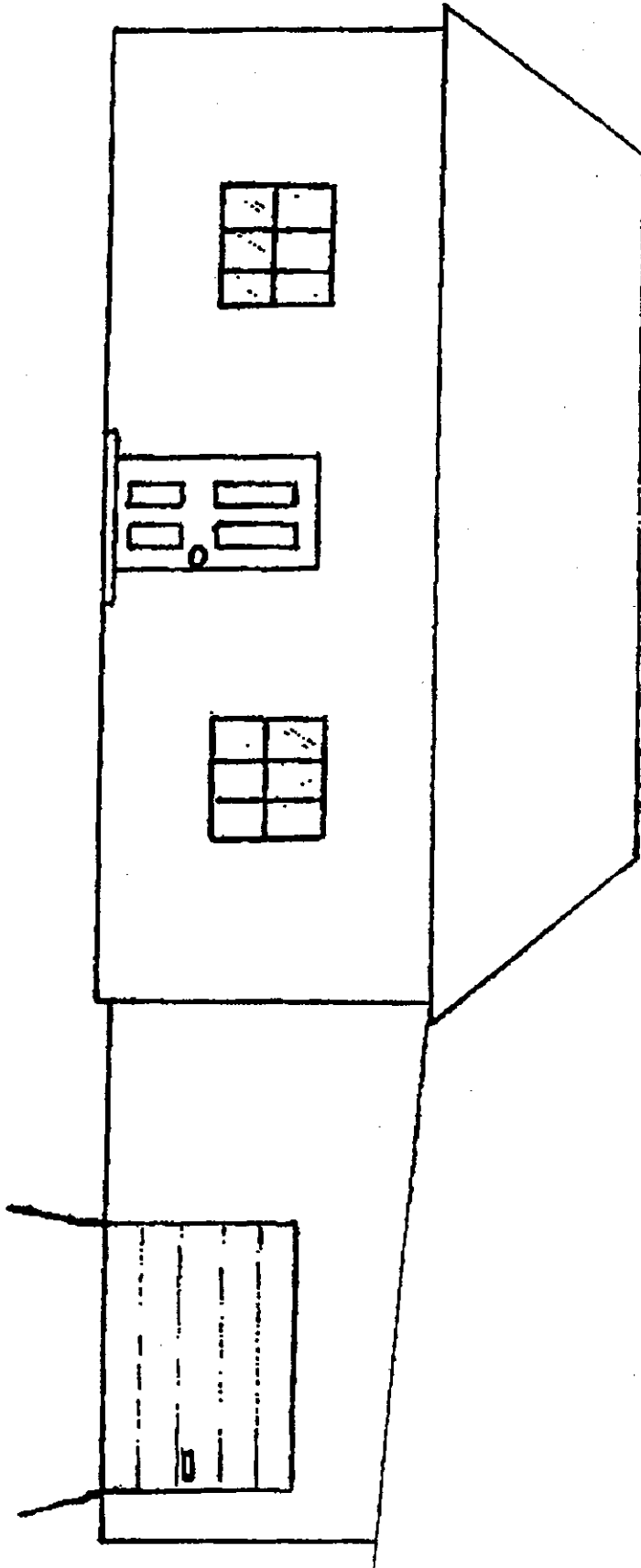


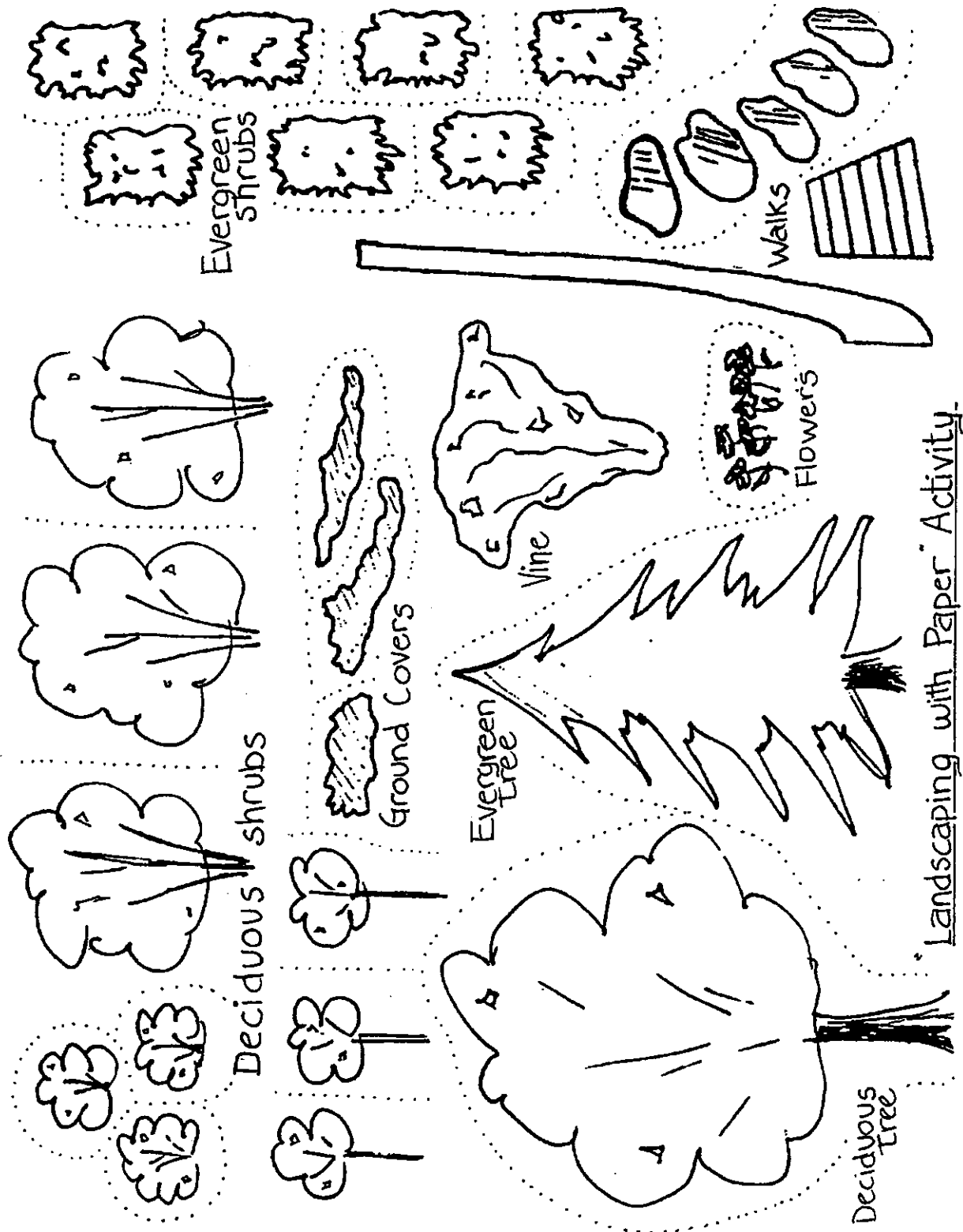
ANSWERS

1. Scatter planting creates a maintenance problem because there is too much to mow around. It leaves no open areas and looks haphazard.
2. Very long hedges to maintain. This may be fine for the keen gardener, but for most people, the upkeep would be too difficult.
3. No place to turn car around. Backing all the way out of the curved driveway would be impractical, especially in winter.
4. Walk is too narrow for two people to walk to the door side by side.
5. Tree blocks view of and from front door. It does not look pleasing planted right in line with the front door and so close to the house.
6. Trees too large for house. Their lower branches will rub against eavestroughs and they are too large for the one-storey house.
7. Tree is planted too close to the foundation. It will bend out from the house, rub against the house and possibly damage the foundation.
8. Fence blocks the breeze. There is no shade for this patio, and afternoon sun would make this area a very hot place to sit on a hot day.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

"Landscaping with Paper" Activity





Landscaping with Paper Activity

MEETING THREE

AN EYE FOR DETAIL

OBJECTIVES

Other reasons for selecting plants are brought to light at this meeting. Members should:

1. Understand how formal and informal plants fit into the landscape.
2. Be able to read and understand a nursery/garden centre catalogue.
3. Get an idea of what is available at their local nursery/garden centre and how a nursery/garden centre is operated.

PREPARATION AND EQUIPMENT

1. It would be useful if all members were to have a copy of the nursery catalogue from the local nursery/garden centre you are visiting. Some nurseries don't have catalogues. You might arrange in advance a tour by the nursery/garden centre owner or a knowledgeable employee. This way the members would get more out of their visit. It is important to inform the tour guide of the age of the group, objectives of the club and trip, and the length of the tour. **Show him/her a copy of the project before the trip.** As well, check into whether there is a fee or honorarium required for the tour. If you are planning to conduct some of your meeting there, arrange this with the host ahead of time. It would be a good idea to have a member introduce and thank the host.

An alternative to a tour would be to ask a Master Gardener or a member of a Horticulture Society to arrange a tour of some local landscaped homes (and perhaps businesses and parks). Contact your local OMAFRA office for more information.

2. If you wish to do the Zone Map activity, bring a nursery catalogue with hardiness zones in it.
3. A judging activity is included in this meeting. Bring any materials necessary for setting up the class in the nursery, or nursery catalogues, if plants aren't available.
4. If you plan to have the senior members do the Digging Deeper activity, bring along paper, pencil, clipboard and nursery or seed catalogue for them.

IN A NUTSHELL

Roll Call	5 min.
What's In A Name?	5 min.
Environmental Aspects	5 min.
Tips For Choosing Plants	5 min.
How To Use Your Nursery Catalogue	5 min.
Nursery Field Trip	20 min.
	<hr/>
	45 min.

Optional: Judging Activity
 Digging Deeper

ROLL CALL (5 minutes) page 21

WHAT'S IN A NAME? (5 minutes) page 22

You could point out formal and informal plants on the tour to help familiarize the members with the differences between the two types of plants.

ENVIRONMENTAL ASPECTS (5 minutes) page 22

ZONE MAP ACTIVITY (Optional)

Have the members choose a plant from a nursery catalogue and note all the areas in which it should survive or they could choose a place on the map (perhaps their own location) and check the catalogue to see what plants they could use. This activity may prove particularly useful for northern areas, as plant material choice is more limited because of hardiness. Refer to the zone map on page 31. If there are enough catalogues, it could be an individual activity. If there are not enough catalogues, do it as a group activity.

TIPS FOR CHOOSING PLANTS (5 minutes) page 23

This covers some helpful hints for selecting plants.

HOW TO USE YOUR NURSERY CATALOGUE (5 minutes) page 24

Members may compare these descriptions with ones in a catalogue. Note that plants are in alphabetical order in a catalogue, usually according to their Latin (ie. botanical or scientific) names. The catalogue may be broken down into several groups such as "Evergreens", "Broadleaf Evergreens", "Trees", "Ornamental Shrubs", "Vines", "Fruit Trees", "Roses" and "Perennials". Each group is alphabetized.

NURSERY FIELD TRIP (20 minutes) page 25

Allow time for a tour or looking around as a group before doing this activity. This activity will be done at the nursery. Have a nursery person help with the answers if you are unsure of the answers.

BEFORE THE NEXT MEETING page 25

SENIOR PROJECT PRESENTATIONS

If you have a lot of senior members, it might be wise to have them present their projects over Meetings Four, Five and Six, as they are ready, and as time allows.

JUDGING ACTIVITY (Optional)

If the nursery person will comply, have him or her put samples of the following plants together, so that they may be judged more easily. Tell members the maximum heights the plants should reach. **It would be possible to do this activity by using a nursery catalogue only, if plants are not available.** Judge:

1. Low spreading green Juniper (0.5 m high)
2. Golden Mockorange (or Bridal Wreath Spirea) (1.3 m high)
3. Flowering Crab (6 m high)
4. Blue Spruce (cultivar) (15 m high)

for their suitability to plant on a medium size yard.

SAMPLE REASONS:

I place this class of plants for a medium size yard: 3-4-2-1.

I place 3 over 4 as the Flowering Crab is an ornamental plant and a more suitable size than a Blue Spruce.

I place 4 over 2 as the Spruce matures to a larger size and thus makes a more outstanding specimen. Both are ornamental plants.

I place 2 over 1 as the Golden Mockorange/Bridal Wreath Spirea is an ornamental plant and a more suitable size than the Juniper.

I place 1 at the bottom. A low spreading Juniper is too small in scale, lacks interesting color and will not show off well in the yard.

For these reasons, I place this class of plants suitable for a medium size yard: 3-4-2-1.

OFFICIAL PLACINGS: 3-4-2-1

For senior members, who are interested, the official cuts on this class are 2-2-1.

An alternative activity for those doing a Master Gardener tour would be to judge the yards. Plants in an individual yard could be judged or analyzed for their suitability to their locations in the yard.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

On their field trip, the senior members as a group, could plan the design of a small flower bed - preferably one that would include both annuals and perennials.

They could check the supply of annual and perennial plants and seeds. Then they could choose a selection of flowers which they think would mix well according to colors, sizes and times of bloom.

Sometimes the plants include a label, which has a description and seed packets include descriptions. However, a nursery or seed catalogue which includes flowers would also be very helpful to the members.

A piece of paper and clipboard could be used to sketch the flower bed and label the plants, and would allow them to get a better idea of what they were designing.

MEETING FOUR

LET'S PLANT A TREE

OBJECTIVES

It is important to plant properly. This meeting teaches members:

1. When and how to plant and what tools to use.
2. Basic soil types.
3. The importance of watering, staking and winterizing plants.

PREPARATION AND EQUIPMENT

1. Bring samples of clay and sand (modelling clay and sandbox sand would be fine). Glass pans or jars could be used for containers. Make sure the samples are at least 6 cm (22" deep) and are dry. Samples of some of the other soil types would be good to show for comparison. Members will experiment with their samples. Bring small, narrow glass jars (or test tubes, if you can get them) for the members to use.
2. Make arrangements at the host's home to show some tools that may be used for planting e.g. tools for digging - shovel, spade; for clean-up - leaf and garden rakes; for staking - hammer, pliers, wire, old garden hose, stake; for watering - watering can, garden hose; for pruning - secateurs. These would be best shown outside.

N.B. If you plan to cost out some tools, bring along some hardware store catalogues.
3. Bring any winter protection supplies you plan to use when discussing "Preparing Plants for the Winter".
4. Make any necessary arrangements for your tree, shrub and/or flower planting activity and for your tree staking activity. You could plan to do this activity in conjunction with a Horticultural Society, school, church, a day care center, Women's Institute or municipal park where some planting needs to be done.
5. If seniors are to do the Digging Deeper flower bed activity, make the necessary arrangements.

IN A NUTSHELL

Roll Call	5 min.
Planting Time	5 min.
Plants and Their Packaging	5 min.
Landscaping Tools	5 min.
Planting Details	15 min.
Watering	5 min.
Stake a Tree	5 min.
Soils	10 min.
Preparing Plants for the Winter	10 min.
	<hr/>
	65 min.

Optional: Digging Deeper

ROLL CALL (5 minutes) page 27

PLANTING TIME (5 minutes) page 27

You may wish to discuss these points when doing your planting activity.

PLANTS AND THEIR PACKAGING (5 minutes) page 28

If your nursery catalogue shows pictures of potted and B & B plants you could show them to go along with the sketches. This topic could also be discussed when doing your planting activity.

LANDSCAPING TOOLS (5 minutes) page 29

Show the members the tools that you have at this time or when you do the planting and staking activities.

You could include a "costing out tools" activity to give the members an idea of what it might cost them to begin landscaping.

Have them use a hardware store catalogue to find the items listed on page 29 under "Landscaping Tools" in the Members' Manual.

PLANTING DETAILS (15 minutes) page 29

POINTS TO DISCUSS

An ideal time to discuss these questions with the members would be when you are doing a tree/shrub/flower planting activity.

1. Why is there a space left between the roots and sides of the hole?
Answer: So new roots will be able to grow easily. Do not bend roots to fit the hole or they won't be able to grow properly. Roots are the "anchor" part of the tree and absorb the water and nutrients.
3. Why "lightly tramp the topsoil" used to fill the hole?
Answer: Tramp the soil lightly around the base of the tree to bring roots into contact with soil and to get rid of large air spaces that would make the roots dry out. However tramping often compacts the soil to an excessive amount. This means no air and poor drainage, and eventually a dead plant.
4. Why is there a "saucer shape" formed with the surface soil?
Answer: The saucer shape keeps water from running away from the tree before it soaks through the soil to the roots. Remember, the roots absorb the water.
5. Why do you stake a tree after planting?
Answer: The stake gives the tree extra support for windy days until the roots can grow and anchor the tree on their own. The stake should be removed after one year. If staked too long, the tree becomes weak.
6. What is the one word common to all of the above answers?
Answer: The common word is ROOTS.

ACTIVITY

Demonstrate planting a tree, shrub or even flowers or have members do it as a group activity. This would be the most interesting way to cover the topics of correct planting method, watering and tree staking. If flowers are planted you could demonstrate "how to stake" on an existing tree.

WATERING (5 minutes) page 30

While doing the planting activity, these true or false statements could be discussed.

- Water is not important to a plant. True or False. Answer = False. Water is very important to a plant.
- The newly installed plant should be thoroughly watered by watering several times right away. True or False. Answer = True. If you water well, then allow the water to soak into the ground and water again, the water will soak through the soil to the roots much better than by pouring a lot of water on all at once.

- For the rest of the season the new plant should be watered very lightly occasionally. True or False. Answer = False. For the rest of the season, water whenever there isn't enough rainfall to give the plant a good drink. About 2.5 cm per week is needed.
- Evergreens don't need to be carefully watered, only deciduous plants do. True or False. Answer = False. Evergreens do need careful watering. They lose moisture through their leaves (or needles) just as deciduous plants do.
- Planting beds should be slightly raised and slope to the edges to help water run off. True or False. Answer = True. A slope of the bed towards the edges promotes good drainage for the plants.
- Planting beds by foundations should slope towards the house. True or False. Answer = False. Water would run to the house if the bed is sloping towards the house. A wet foundation is undesirable.
- If a downspout is in a planting bed it should be aimed so that it pours water on a plant. True or False. Answer = False. Too much water runs out the downspout at once, and can wash away the soil.

Reading the corrected statements will reinforce the true information.

STAKE A TREE (5 minutes) page 30

ACTIVITY (Optional)

Demonstrate staking or do it as a group activity. This would work well with the tree planting activity. It could be demonstrated on an existing tree though, if you are planting a shrub or flowers instead of a tree.

SOILS (10 minutes) page 31

EXPERIMENT WITH CLAY, SAND AND OTHER SOIL SAMPLES

Show the members the dry samples of clay and sand. The clay should appear cracked. Let members feel it like this to feel the powdery texture. Then break up the clay to show how lumpy it gets. The fine particles of clay are held together in the lumps.

The dry grains of sand are loose. Let the members sift the sand through their fingers. Add a little water to each sample at the same time. Observe how the water drains away quickly through the sand, but slowly drains through the clay. This is because there are bigger air spaces between the sand particles than between clay particles. The water is able to run more freely through the sand. Clay "holds" the water better.

Add a little more water. Then let members test the clay for its smooth, slippery texture that holds together very well. The sand will also hold together somewhat, as a sandcastle would.

Have members test a portion of their own soil samples by this method.

The members could also do a percolation test with their soil samples.

Have them place some of their soil samples in glass jars or test tubes. Soils in each jar should be at equal levels.

The members then pour equal amounts of water in each jar and watch to see how quickly the water passes through the soil. If the water drains through slowly, there are more clay particles in the soil; if it moves through quickly, there is more sand in the soil.

Do a comparison test with sand and clay samples at the same time.

PREPARING PLANTS FOR THE WINTER (10 minutes) page 32

You could show members some of the ways of protecting plants or some samples of materials that could be used.

BEFORE THE NEXT MEETING page 33

Suggest that members decide on a location for digging, after consulting their parents. The addresses of accredited soil testing laboratories are available through OMAFRA offices.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

If there is time the senior members could plant annuals, perennials or bulbs in a prepared bed or they might work at preparing a small flower bed for planting. You might choose to have some annuals from the suggested list in the Digging Deeper section.

MEETING FIVE

KEEP IT GROWING

OBJECTIVES

This meeting is meant to familiarize members with ways to care for woody and herbaceous plants. These ways include:

1. Flower bed maintenance
2. Fertilizing and pruning tips.
3. Insects and disease awareness and control measures.

PREPARATION AND EQUIPMENT

1. It would be best if the host for this meeting had a flower bed with grooming that needs to be done. Have tools available for the activity ie. hoe, cultivator, watering can, shovel, trowel, stakes, shears, etc.
2. Bring some fertilizer samples to show when discussing purchasing fertilizer.
3. As members will be studying insects and diseases this meeting, samples of diseased woody plant material may be brought to the meeting. Samples of the ones mentioned on the chart on page 51 would be of particular interest.
4. Jars of live insects from woody plants, such as caterpillars, aphids and leaf miners, might prove fascinating to the members. If you plan to play the "What Pest Am I?" game at the back of the Leaders' Guide, the cards should be prepared and a list of the 10 possible answers should be made so they can be displayed on a flip chart or chalkboard.
5. If you plan to have the seniors cover the Digging Deeper section on "How to Prune" you could use one of these aids:

A video on pruning techniques, called "Why Prune When Prune" is available from the A.V. Library, OMAFRA, 1 Stone Road West, Guelph, Ontario, N1G 4Y2 1-888-466-2372, extension 6-3682 FAX (519) 826-3358 and arrange for these well in advance. As an alternative you could have a pruning demonstration done outside by a competent pruner.
6. If the judging tool activity is planned, sample pruning tools would be an asset.
7. It would be advantageous to show a home composting set-up at this meeting, when discussing fertilizers. Senior members who looked at compost piles in Meeting One's Digging Deeper would be able to explain the process at this meeting.

PROJECT COMPLETION

Read the note on page 45, this Guide. If you want members and parents/ guardians to complete the Project Summary sheet, copies should be given out at this meeting.

IN A NUTSHELL

Roll Call	5 min.
What is Fertilizer? and When to Fertilize Plants	20 min.
Insects and Disease	10 min.
Other Ailments	5 min.
Pruning Woody Plants	5 min.
Grooming the Flower Bed	20 min.
	<hr/>
	65 min.

Optional: Judging Activity
 Digging Deeper

ROLL CALL (5 minutes) page 35

WHAT IS FERTILIZER? and WHEN TO FERTILIZE PLANTS (20 minutes) page 35

You might try a mini composting experiment ahead of time.

Using 1 or 2 L plastic containers (eg. ice-cream or yogurt containers), poke holes in the lower portion of the containers to allow air in.



Fill one container with suggested ingredients, from page 35 Members' Manual, at least **one month** before the meeting. Put the lid on.

Fill the second container with the same kind of ingredients one to two weeks before the meeting. Put the lid on.

Fill the third container with identical ingredients at or just before the meeting.

At the meeting examine the compost mixes and compare them to see how the process has advanced.

Composting could be examined in greater detail if the members could see a home composting set-up. When the flower bed is groomed, the flower trimmings could be added to the compost pile.

ACTIVITY (Optional)

Arrange to have fertilizer samples at the meeting for members to compare using the information on page 36 i.e. which has more N, P or K? Which would be best used for established plants or at planting time?

INSECTS AND DISEASE (10 minutes) page 37

Keeping plants healthy will help prevent attack by pests.

However, most plants get attacked by insects or disease at some time. Examine the chart to learn more common insect and disease names, plants attacked and description. Refer to OMAFRA Publication #64 "Insect and Disease Control in the Home Garden" for more information.

Insects may damage a plant by:

- chewing leaves
- sucking sap
- boring into the stem
- eating roots
- causing abnormal swelling of the plant tissue (i.e. galls)
- cutting a young flower stem off at or just above the ground (i.e. cut worms).

Some insects are difficult to see but usually the damage can be seen easily or can be seen upon close examination.

The purpose of the charts is to give members an idea of the many types of insects and the wide range of plants they attack.

Show any insects and disease samples you have brought in. Match them with the chart if possible.

ACTIVITY (Optional)

Obtain copies of OMAFRA Publication 64, "Insect and Disease Control in the Home Garden" and submission forms for the OMAFRA Pest Clinic through your OMAFRA office. Review these resources with members and practice finding control methods for the insect and disease samples brought to the meeting or for examples from the members' chart, page 37.

WHAT PEST AM I? (Optional)

This activity, played as a card game is meant to familiarize members with some common insect and disease names and host plant names. The pests on the cards are all ones that appear on the chart, so it is important to go over the chart first.

GAME

1. Cut out the cards on page 51 of the Leaders' Guide and place face down in a pile. Divide the members into two teams: Pest Team and Exterminator Team.
2. Put up the lists of 10 possible answers, so the members can see them (on pages 53 and 55).
3. The first member of the Pest Team draws the top card and asks the question of the first member of the Exterminator Team. If the Exterminator is correct he/she is awarded a point. If incorrect, the Pest gets the point.
4. The second Pest draws the next card and asks the second Exterminator that question, and so on, until all the cards are gone or all team members have participated.
5. Tally the points. If the Pests have more, Pests are ravaging the plants. If the Exterminators have more, the Pests are exterminated.
6. Switch team names and play the game again. The repetition should reinforce the information and allow all members to participate in both asking and answering questions.

Depending on numbers and ages of members, the game may be better played in pairs within the teams. Then two members would take part in asking a question and two would decide on the answer together.

OTHER AILMENTS (5 minutes) page 38

The members should understand that many factors can affect the health of a plant. You might ask the members if they have noticed any such plant damage.

PRUNING WOODY PLANTS (5 minutes) page 38

When you cover these points stress that caution must be used when using sharp tools.

GROOMING THE FLOWER BED (20 minutes) page 39

This would be a great chance to get the members out to practice flower bed maintenance. Fertilizing and watering could be included too. You could also have the members look for insects and disease problems.

The following points could be used as a guide for discussion topics during the group activity.

- Annuals can be seeded outdoors in early spring or planted as small plants after the danger of frost is past.
- Weeds are easiest to remove when they are small. Weed once a week by hand or with a small hoe or cultivator.
- Flowers should be cut off the plants once they have faded.
- When the foliage (the leaves) dries up and becomes ugly it should be removed too.
- Cut the tops off all perennials close to the ground at the end of the season OR leaving them will help collect snow and add interesting effects. Then there is less chance of mice making nests in the bed. Remove annuals after they have been hit by frost and add them to your compost.
- Protect perennials with evergreen branches if necessary. (See Meeting #4 - Preparing Plants for Winter - Perennial Care).
- In the spring, replant any perennials that have been heaved out of the ground by the frost.
- Tall plants such as Delphinium should be supported to prevent stem breakage during flowering. Other plants such as Peony should be supported to keep their heavy flowers off the ground. This staking is best done early in the season when the plants are small. Bamboo stakes and twine or special plant cages can be used.
- Generally perennials can be moved at any time of the season as long as a well-moistened ball of soil is moved with them. However, it is best to move early blooming (before mid-June) perennials in early September and late blooming (after mid-June) perennials in April or May.
- Some perennials spread quickly and should be divided every 2 years or so to keep them from taking over another plant's territory.
- Other perennials don't like being moved and should be left alone if possible. e.g. Bleeding Heart, Baby's Breath and Peony.

You might try a question and answer/demonstration format to cover these points. eg. What should be done to help this tall, floppy plant? Then have a member suggest and/or show a staking method.

BEFORE THE NEXT MEETING page 41

Stress to the senior members that if they select the pruning activity to do at home, they must get parental consent before going ahead. Stress that members be safety conscious.

REMINDER

The next meeting's roll call is a sample or a picture of a plant pest. Members should plan ahead.

JUDGING ACTIVITY (Optional) page 41

Judge the following set of pruning tools according to their use in cutting off a branch this size:



TOOLS

The branch is above the head but within arms length.

1. Secateurs



2. Loppers



3. Pruning saw



4. Pole pruners



OFFICIAL PLACINGS: 2-3-4-1

SAMPLE REASONS:

I place this class of pruning equipment: 2-3-4-1.

I would place 2, the loppers, over 3, the pruning saw as they give a good clean cut. The long handles give good leverage for a branch of this diameter.

Place 3 over 4, as the pruning saw would leave a slightly rough cut, but could be more easily used than the pole pruners.

Place 4 over 1, as the pole pruners could prune the branch very easily, but would be awkward to use at such a low height.

Place 1 at the bottom. The secateurs would be unable to cut this diameter of branch so they are not suitable.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

If the seniors have a chance to cover "How to Prune," it would be good for them to see the video "Why Prune When Prune" (12 min.) (from OMAFRA) or to have a pruning demonstration.

If the members have a chance to dig into a compost pile and turn it over, this would help them understand the composting process.

MEETING SIX

FINISHING TOUCHES

OBJECTIVES

This meeting covers a variety of finishing touches for the landscape. By the end of the meeting, members should:

1. Understand uses of and make good selection of flowers, mulch and edging.
2. Realize what is involved in making a lawn lush, and the importance of it aesthetically.
3. Be aware of other materials that could be incorporated into the landscape design to make it more pleasing or more functional.

A review of the project is included.

PREPARATION AND EQUIPMENT

1. The baseball review game at the back of your guide should be prepared as follows:
Draw a baseball diamond on a large sheet of paper. Glue to corrugated cardboard backing or corkboard. Obtain a supply of bulletin board push pins in at least two colours. Prepare question cards and answers and sort into piles.
2. Magazines or books with pictures of uses of flowers and other finishing touches would be an asset.
3. An assortment of mulches would be useful to show when discussing the topic.
4. A sample of black plastic edging would be helpful to show when discussing the topic.
5. Senior members may present their projects. You may wish to review any topics from previous meetings as you feel necessary. You may wish to discuss your Achievement Program.

IN A NUTSHELL

Roll Call	5 min.
Flowers	10 min.
Mulch: The Blanket for the Bed	5 min.
Edging: The Trim for the Bed	5 min.
Lawns and Mowing Notes	10 min.
Other Finishing Touches	5 min.
Covering the Bases	15-20 min.
	<hr/>
	55-60 min.

Optional: Digging Deeper

ROLL CALL (5 minutes) page 43

FLOWERS (10 minutes) page 43

You could show magazine pictures of different ways that herbaceous flowers are used effectively, eg. in planters, beds, on walls, fences, etc. Point out how they brighten the yard with their variety of colors. You could remind members of the use of some woody plants with showy flowers that can be used in beds (eg. roses, cinquefoil) or for covering walls (eg. clematis, trumpet vine), etc.

ACTIVITY (Optional)

Members could practice planting bulbs or perennials in an ideal spot in the yard. This would help them understand the use of flower types.

MULCH: THE BLANKET FOR THE BED (5 minutes) page 44

It would be interesting to show samples of the different mulches.

ACTIVITY (Optional)

Have the members apply a mulch to an existing bed.

EDGING: THE TRIM FOR THE BED (5 minutes) page 44

Black plastic edging would be particularly good to show.

LAWNS and MOWING NOTES (10 minutes) pages 45 and 46

A demonstration of mower safety tips would be an ideal way to impress upon the members the caution needed when operating a mower.

OTHER FINISHING TOUCHES (5 minutes) page 47

Show any magazine pictures of finishing touches.

COVERING THE BASES (15-20 minutes) pages 57-62 Leaders' Guide

PROJECT BASEBALL

Divide the group into two teams and designate a push pin color for each. Decide which team will be up first. Start with one member of that team. Members at bat can choose the question to be attempted (single, double, triple or home run) or all the cards can be shuffled together into one pile so the card will be selected at random. Game leader picks a question from the pile and reads it. A correct answer is a hit and advances the batter according to the difficulty of the question. An incorrect answer is an out. After three outs, bases are cleared and the other team is up. To score a run, a player must be forced off base and hit home by a team mate.

DIGGING DEEPER - OPTIONAL INFORMATION FOR SENIORS, Separate handout

The senior members could examine the pictures of "finishing touches" in the resource material that you have brought. Then they could tour the host's yard and analyze it.

They could be looking for such things as these:

- Is the lawn in good shape? What could be done to improve it?
- Are flowers, mulches or edging used?
- Are there any water features, special lighting, arbors, etc. that add interest to the yard?
- Where might they add interest and/or reduce maintenance to the yard, and how would they do it?

PROJECT COMPLETION

A Certificate of Completion and a Project Summary have been included in this Guide, pages 47-49. Your signature on either of these indicates you feel the member has completed the project to the best of his/her ability. Space is provided for you to add some individual comments to offer encouragement to the member. The Project Summary sheet also asks for written feedback from the member and his/her parents/guardians. (The questions on this sheet have been selected from the informal evaluation sentences, listed below.) Select whichever sheet best meets your needs and make copies for the members.

It is recommended that the certificates not be awarded until the Achievement Program. If you give them out before this time, some members mistakenly assume that they don't need to participate in the program.

It Worked For Us!

Your experience in leading this club would be helpful to another leader in your area. You are encouraged to make some comments about the project, what resources you discovered locally and the members' feelings about the project and pass this information on to your 4-H Association. The Resource Development Subcommittee of the Ontario 4-H Council is interested in your comments too. Their address is in this Guide, page 5.

INFORMAL EVALUATION

If your members are not completing the project summary sheet, take a few minutes at the last meeting to do an informal evaluation with members. One way to do this is to ask them to complete one/all of the following sentences.

- I joined this club because ...
- I really enjoyed ...
- I didn't enjoy ...
- I had a hard time ...
- My favourite meeting activity was ...

- My least favourite meeting activity was ...
- If I was to take this project again, I would change ...
- I learned ...
- I've changed ...
- I'm glad ...

THANK YOU FOR BEING
A VOLUNTEER 4-H LEADER!



HORTICULTURE
Let's Landscape

Congratulations on successfully completing
this 4-H project.

Date

Club Leader's Signature

PROJECT SUMMARY - HORTICULTURE

(complete at the end of the project)

A. Member Comments:

1. I joined this club because ... _____

2. I really enjoyed ... _____

I didn't enjoy ... _____

3. If I was to take this project again, I would change ... _____

4. I learned ... _____

5. I'm glad ... _____

B. Parent/Guardian Comments: _____

C. Leader Comments: _____

This project has been completed satisfactorily.

Member _____ Leader _____

Date _____ Leader _____

CUT OUT THE CARDS BELOW AND PLAY "WHAT PEST AM I?"

<p>I crawl; "camp out" in crabapple trees and love to eat leaves. What pest am I?</p> <p>Answer: Tent caterpillar</p>	<p>My friends and I love to eat pine needles. We can strip branches quickly. What pest am I?</p> <p>Answer: Pine sawfly caterpillar</p>
<p>I cover lilac leaves with what looks like powder. What pest am I?</p> <p>Answer: Powdery mildew</p>	<p>I have a hard shell-like covering like an oyster's. I damage branches by sucking the sap out. What pest am I?</p> <p>Answer: Oystershell scale</p>
<p>I tunnel inside the leaves of birch trees and make them turn brown. What pest am I?</p> <p>Answer: Birch leaf miner</p>	<p>I look much like a little slug and enjoy eating flowering cherry leaves. What pest am I?</p> <p>Answer: Pearslug</p>
<p>I feed on silver maple leaves and cause warts to form. I am usually harmless though. What pest am I?</p> <p>Answer: Maple bladder gall mite</p>	<p>I love to tunnel inside lilac trunks, but can cause them to break. Look for sawdust on lilac trunks to see where I enter. What pest am I?</p> <p>Answer: Lilac borer</p>
<p>I suck the sap out of leaves, making them curl. I secrete a sticky substance called "honeydew". What pest am I?</p> <p>Answer: Aphid</p>	<p>I cause ugly brown marks on apple leaves and fruit. What pest am I?</p> <p>Answer: Apple scab</p>
<p>I hide by day and feed at night, leaving a trail behind me. What pest am I?</p> <p>Answer: Snail or slug</p>	<p>Black lumps appear on cherry tree branches because of me. What pest am I?</p> <p>Answer: Black knot</p>

[illegible]

Tent caterpillar

Apple scab

Black knot

Snail or slug

Maple bladder gall mite

Birch leaf miner

Aphid

Lilac borer

Pine sawfly caterpillar

Powdery mildew

Oystershell scale

Pearslug

PROJECT BASEBALL (Cut along line.)

<p>What are three functions of plant roots?</p> <p>Answer: absorb water, absorb nutrients, anchor the plant (help it stand up)</p>	<p>Name four features of plants that make them attractive.</p> <p>Answer: <u>Four</u> of: flowers, fruit, leaves, bark, shape or form.</p>
<p>Give one reason for planting a vine.</p> <p>Answer: To cover a wall or fence, for a cooling effect, or on a slope as ground cover.</p>	<p>Name two reasons for landscaping.</p> <p>Answer: 1.aesthetic (attractive) 2.practical</p>
<p>Why is it important to measure before sketching a plan?</p> <p>Answer: So you can choose the right size and number of plants.</p>	<p>What are three soft surface landscape materials?</p> <p>Answer: <u>Three</u> of: trees, shrubs, vines, ground covers, grass or flowers.</p>
<p>Why is it a good idea to sketch landscape problems on paper?</p> <p>Answer: It is easier to see and understand them.</p>	<p>Should you use formal or informal plants on rough lawn around the back yard?</p> <p>Answer: Informal.</p>
<p>Why might you install a fence instead of a hedge?</p> <p>Answer: For instant effect.</p>	<p>How could you correct the problem of strong west winds?</p> <p>Answer: Windbreak.</p>
<p>Could road salt damage a plant?</p> <p>Answer: Yes.</p>	<p>Why do you need to stake a tree when you plant it?</p> <p>Answer: To anchor it from the wind until the roots grow and can do that job again.</p>

HOME RUN	TRIPLE
DOUBLE	SINGLE
TRIPLE	DOUBLE
SINGLE	SINGLE
SINGLE	SINGLE
DOUBLE	SINGLE

PROJECT BASEBALL (Cut along line)

<p>If a plant is hardy to zone 2a, will it grow well in zone 5?</p> <p>Answer: Yes.</p>	<p>How can you protect a newly-transplanted annual or perennial?</p> <p>Answer: With an inverted pot or other shading material.</p>
<p>What do the three numbers on a fertilizer bag stand for? Name in order.</p> <p>Answer: Nitrogen (N) Phosphate (P) Potash (K)</p>	<p>If you are buying a plant that is B & B, what does that mean?</p> <p>Answer: Balled and burlaped.</p>
<p>What would you do to improve a plant that has dead and diseased wood in it?</p> <p>Answer: Prune that wood out.</p>	<p>Name the three plant pests.</p> <p>Answer: Insects, disease, rodents.</p>
<p>Should you dig up and move a plant in the summer?</p> <p>Answer: No.</p>	<p>What harm or damage can be caused by running over a stone with a lawn mower? (Name 3 things.)</p> <p>Answer: 1. It can hurt a bystander. 2. It can damage a building, car, etc. 3. It can damage the mower blade.</p>
<p>What can you do with the leaves from bulbs, annuals and perennials after they have died down?</p> <p>Answer: Cut them off and add them to the compost.</p>	<p>Should you water an evergreen tree after it is planted?</p> <p>Answer: Yes.</p>
<p>Do some plants prefer sun and others prefer shade?</p> <p>Answer: Yes.</p>	<p>How might you keep moisture in the soil around shrubs once they are planted?</p> <p>Answer: Use a mulch.</p>

SINGLE	SINGLE
SINGLE	TRIPLE
DOUBLE	SINGLE
HOME RUN	SINGLE
SINGLE	SINGLE
SINGLE	SINGLE

PROJECT BASEBALL (Cut along line)

<p>What is a woody plant?</p> <p>Answer: A perennial that does not die back to the ground because the stems are woody.</p>	<p>Name two ways of attracting birds to your yard.</p> <p>Answer: 1. Plant plants with attractive fruit or 2) plants that provide cover.</p>
<p>How could you brighten up a deck or patio?</p> <p>Answer: Use annuals in planters.</p>	<p>What is a retaining wall used for?</p> <p>Answer: Holding a slope or bank.</p>
<p>WALK</p>	<p>HIT BY PITCH</p>
<p>WALK</p>	<p>HIT BY PITCH</p>
<p>What is a deciduous plant?</p> <p>Answer: One that loses all its leaves in fall.</p>	<p>Name two materials you might use in the construction of a sitting area.</p> <p>Answer: <u>Two</u> of: wood, brick, stone, concrete.</p>

DOUBLE	DOUBLE
SINGLE	SINGLE
SINGLE	SINGLE
SINGLE	SINGLE
DOUBLE	SINGLE



LEARN TO DO BY DOING

Let's Landscape



NAME _____

AGE _____

CLUB _____

NUMBER OF CLUBS _____



Ontario
4-H Council



Ontario

Ministry of Agriculture,
Food and Rural Affairs

4-H 1500 98 ME

The Ontario 4-H Program provides opportunities for
the personal development of youth.

THE 4-H PLEDGE

"I pledge:

My Head to clearer thinking

My Heart to greater loyalty

My Hands to larger service

My Health to better living

For my club, my community and my country."

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the Ontario Ministry of Agriculture, Food and Rural Affairs.

LANDSCM



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JEUNESSE, J'ECOUTE
1-800-668-6868

<http://kidshelp.sympatico.ca>

ISBN 0-7778-6619-6

INTRODUCTION

Landscaping was done by the Egyptians as early as 1800 B.C. At that time and for many, many years, only wealthy estates had formal gardens. Their fancy hedges, rose gardens, fountains and terraces required a lot of work to keep them beautiful. Now we have more time and interest in landscaping large and small spaces.

OBJECTIVES

As a member of this project you will:

1. Be introduced to the plant's role in the landscape.
2. Develop basic design skills.
3. Learn to identify areas in the landscape that need improvement.
4. Become familiar with a range of woody plants and some herbaceous plants.
5. Learn how to care for plants.
6. Understand how to use a nursery catalogue.
7. Develop both leadership and co-operation skills through participation in club activities.
8. Have fun!

GENERAL REQUIREMENTS

A member will complete a project satisfactorily by:

1. participating in at least 2/3 of his/her own club meeting time;
2. completing the project requirements to the satisfaction of the club leader(s);
3. taking part in an achievement program.

SPECIAL ACTIVITIES (optional)

Individual clubs will decide if junior and/or senior members will be required to complete a special activity. If you will be doing a special activity here are some suggestions to get you thinking. If you have another idea that's great - just get it approved by your leader(s). Whatever the choice; display, present or share in some way the results of your activity. This could be done at a club meeting, the Achievement Program or another 4-H event.

SENIOR ACTIVITY IDEAS (Members 15 years and over as of January 1)

Suggestions for activities for senior members are listed here. These activities offer senior members (15 years and over) a chance to look more closely at an area of interest to them. **The emphasis is not on the report or on the final results, but on the activity and learning experience itself.** Members may pursue an activity idea of their own, and can work on the projects in pairs or small groups, if they wish.

- a) Build a small design in your yard or church grounds, etc., such as a rock garden; a foundation planting; a bed planting, incorporating a tree or large rock perhaps; a planting around a deck, patio or water feature; or any other reasonable project, on which your leaders agree. Take photos and make a report on materials, steps taken and cost.
- b) Build a small scale model of a landscape design using actual small plant material to represent trees, shrubs, etc. This project should be no larger than a card table top. Take photographs of it, and incorporate them into a display.
- c) Draw a detailed design for a yard. Include trees and shrub plantings, flower beds and hard surface

material. Draw to scale.

d) Draw to scale a detailed design of:

1. A hard surface sitting area complete with plant material

OR

2. A water feature with plant material.

e) Do a photo essay. Take photos of a landscape project step by step from start to finish. This could be any landscape construction going on in your community. Make a brief report to accompany the project, including your evaluation of the project and how you might improve it.

f) Make a collection of woody and/or herbaceous plant material (15 samples). Press specimens and then mount on index cards with clear mactac. Write a description of the plant on the reverse side to accompany the plant name. Include in the description the maximum height and spread, colour of foliage and flowers, the type of soil and light conditions the plant requires, and any other information which will be useful in identifying and selecting plants for the landscape.

g) Help with the lawn, garden or pruning for a senior citizen.

h) Help a horticultural society with one of its community projects.

i) Do an essay on a flower or tree's life from seed to its final site in the landscape.

j) Spend a day with a local nursery person or landscape contractor as a volunteer.

MEETING SCHEDULE

	DATE	TIME	PLACE
MEETING ONE			
MEETING TWO			
MEETING THREE			
MEETING FOUR			
MEETING FIVE			
MEETING SIX			
ACHIEVEMENT PROGRAM			

FEEDBACK

The 4-H Resource Development Subcommittee of the Ontario 4-H Council reviews and evaluates 4-H resources. Comments and suggestions about 4-H manuals and guides are always welcome. They may be sent to the following address:

4-H Resource Development Subcommittee
Ontario 4-H Council
R.R. #1 Thornloe, Ontario P0J 1S0
1-800-937-5161.
E-mail: lduke@ntl.sympatico.ca
<http://www.4-Hontario.ca>

GLOSSARY OF LANDSCAPING TERMS

Note: Words in the manual marked with a * are listed below.

AMENDMENT	Refers to material added to the soil to make it better. eg. contain more nutrients, improve ability to hold water, etc.
ANNUAL	A plant which lives for only one year.
BIENNIAL	A plant which produces leaves the first year, flowers and fruits the <u>second</u> year, and then dies.
COMMERCIAL FERTILIZER	A man-made fertilizer containing necessary nutrients for plants.
DECIDUOUS PLANTS	Ones which lose all their leaves in the fall.
DEFOLIATE	Refers to a plant's loss of entire leaves, e.g. insects eat the leaves and may <u>defoliate</u> a tree.
GROUND COVER	Low, spreading plant material that densely covers the ground.
HARDINESS	Refers to a plant's ability to survive winter temperatures, rainfall availability and maximum summer temperature in a geographic area.
HERBACEOUS PLANTS ...	Ones which have fleshy stems and die back to the ground each winter.
INFORMAL PLANTS	Ones which have a natural look in form and colour.
LARVA	The wingless (often caterpillar) stage of an insect's development.
MACRONUTRIENTS	Essential plant nutrients which are needed in large amounts e.g. nitrogen, phosphorus and potassium.
MICRONUTRIENTS	Essential plant nutrients which are needed in small amounts e.g. iron, magnesium.
MOTTLING	Refers to patchy yellowing of the leaves.
MULCH	Material placed around plants to prevent moisture loss, freezing of roots, and weed growth.
PERENNIAL	A plant that lives for more than two years.
SCREEN	Plant material, a fence or a wall, which hides the view.
SKELETONIZE	Refers to loss of the leaf tissue between the veins (i.e. the leaf skeleton) caused by insect feeding.
SPECIMEN	Refers to a plant with outstanding features, (e.g. blue colour, weeping form, etc.) that looks attractive when planted alone.
WINTERBURN	Refers to foliage which has turned brown by drying out because of winter sun or wind.
WOODY PLANTS	Perennials which have woody stems and <u>do not die</u> back to the ground each winter.

A Look At Landscaping

ROLL CALL

At your host's home go outside and look at some woody plants. Describe the features of one plant that appeals to you.

Be willing to let your name stand for an executive position. It is a rewarding and fun experience. Following your club's elections, complete this club executive chart.

CLUB EXECUTIVE:

	<u>Name</u>	<u>Phone</u>
PRESIDENT	_____	_____
VICE-PRESIDENT	_____	_____
SECRETARY	_____	_____
TREASURER	_____	_____
PRESS REPORTER	_____	_____
OTHER	_____	_____

CLUB MEMBERSHIP:

Members, Phone

Members, Phone

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Leaders, Phone

Leaders, Phone

_____	_____
_____	_____

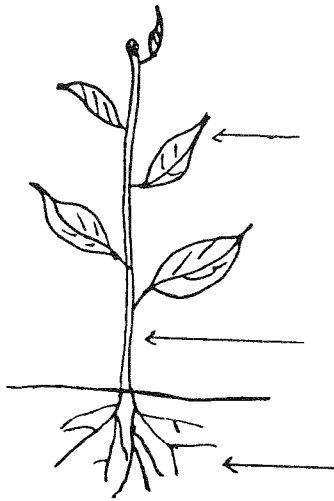


OMAFRA Contact, Phone

4-H Association Contact, Phone

LET'S LOOK AT PLANTS

***HERBACEOUS PLANT**
(her-bay'-shus)

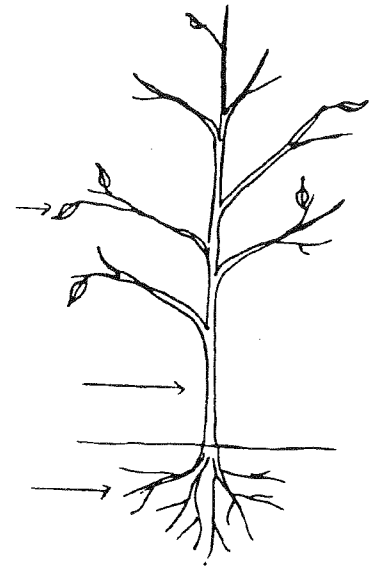


LEAVES
produce food for the plants

STEM/TRUNK
support the plant, conduct water
and nutrients from leaves to
roots and roots to leaves

ROOTS
take up water and nutrients from
the soil and anchor plants to the
ground

***WOODY PLANT**



An herbaceous plant has a fleshy stem and dies back to the ground each winter. It may live for one year (*annual), two years (*biennial) or more than two years (*perennial). In contrast, a woody plant is a perennial plant that does not die back to the ground each year. It has woody stems. Woody plants can be shrubs, trees, and some vines and *ground covers. They can be *deciduous or evergreen.

WHY LANDSCAPE?

1. To beautify an area with colourful plants, and give a pleasing look.
2. For practical reasons, such as to add a better walking route, sitting area, retaining wall to hold a bank, shade, a windbreak or a screen for privacy.
3. To add value to your home.
4. For a hobby, which is also a good way to get fresh air and exercise, and to relax. ~

KINDS OF LANDSCAPING

- A. Hard surface materials are used to make patios, decks, walks, planters, benches, fountains and lights. Some examples are:
- | | |
|----------|-------|
| brick | steel |
| stone | wood |
| concrete | |
- B. Soft surface materials are plants which "soften" the look of the landscape. Some examples are:
- | | |
|--------|---------------|
| trees | ground covers |
| shrubs | flowers |
| vines | grass |

DECISION MAKING

To begin a project you must decide what materials you wish to use. To make these decisions it is best to make a plan.

Research your plan by reading about, observing and asking qualified people about materials before choosing them. Hard surface materials should be selected for:

1. How suitable and durable they are for the purpose
2. How they look
3. How much they cost

To decide which plants to choose you should consider these points:

1. Types of plants - such as trees, shrubs, vines or ground covers.
2. Features of plants - such as size (both now and as they grow), leaf colour, bark and fruit.
3. Environmental aspects - such as hardiness, soil conditions or light.
4. Maintenance of plant material. Some plants need more care than others. The design in which you install the plants may make the work to maintain them too difficult.
5. Cost. The size or kind of plant you choose may depend on the cost.

BEFORE THE NEXT MEETING

1. Look over your yard (or a friend's) with a critical eye. Note two ways you could improve the landscape.
2. Bring a magazine picture showing one way to beautify the landscape.
3. Seniors: bring a pencil and some plain paper to the next meeting for sketching a foundation.

Design With A Purpose

ROLL CALL

Share your ideas about adding beauty to a landscape.

TYPES OF PLANTS

TYPES OF PLANTS

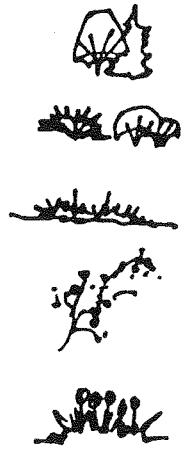
- **Trees** may be deciduous or evergreen.
- **Shrubs** may be deciduous or evergreen.
- **Ground covers** may be herbaceous or woody, deciduous or evergreen.
- **Vines** usually are deciduous but some are evergreen.
- **Flowers** may be annuals, biennials, perennials or bulbs.

SOME OF THEIR USES

- Shade, windbreaks or *specimens.
- Foundation plantings (ie. plantings along the walls of buildings), *screens, beds and specimens.
- Use instead of grass under plants or on areas that are difficult to mow, like hills, as they do not require mowing. Many have attractive flowers or foliage.
- Use to cover walls or fences to add height, colour or a cooling effect.
- Add colour to beds, rock gardens, on fences or decks.



Remember to refer to the glossary on page 4 when unsure of the meaning of a word marked *.



FEATURES OF PLANTS

What are some obvious features of plants?

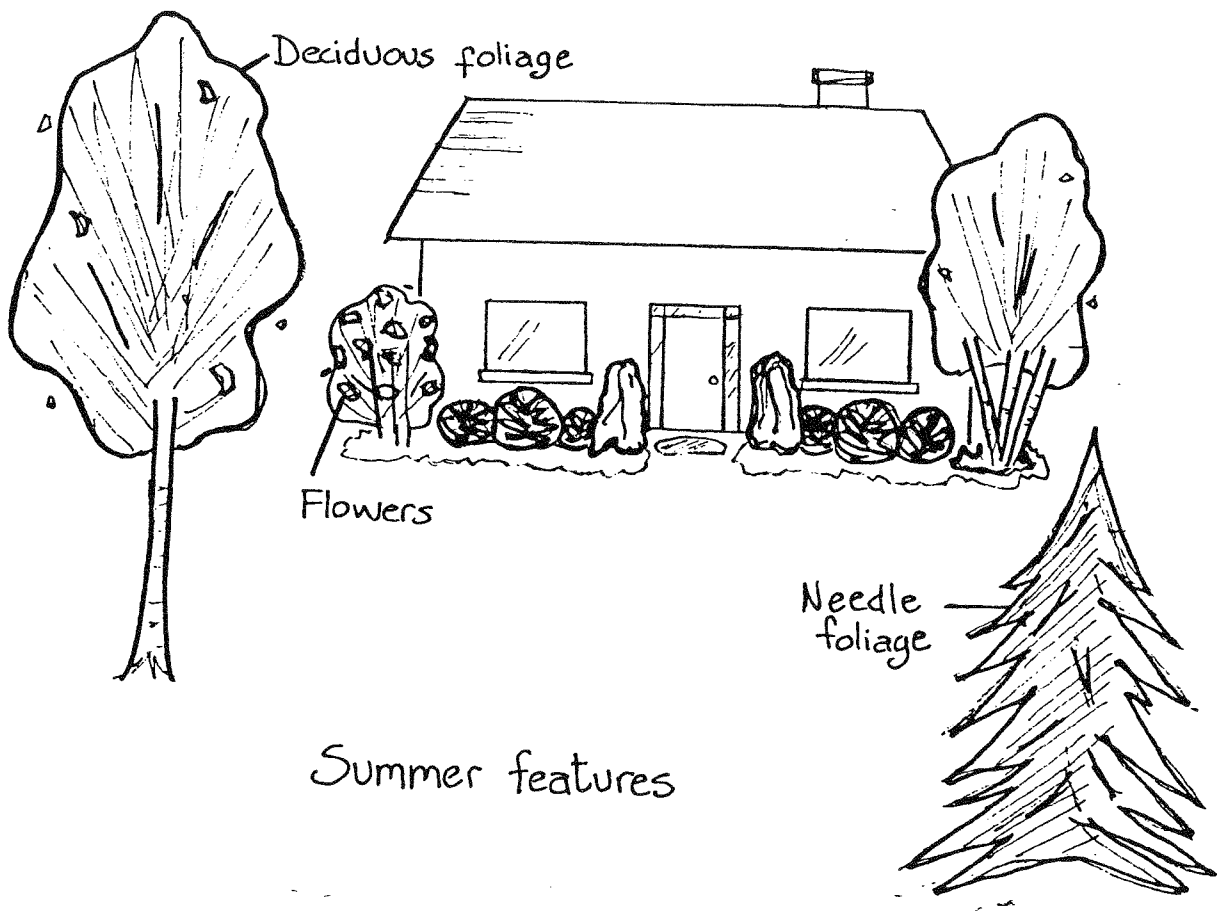
Plants are usually selected for their most obvious features. You must pay attention to the less obvious ones too.

Flowers often give a plant its scent. Many plants are chosen because of the size, shape, colour or abundance of flowers.

The **fruit** adds colour and often attracts birds. Some flowering crabapples and *Euonymus europaeus*, European euonymus, have interesting winter fruit.

An evergreen may have broadleaves or needles for its **foliage** (or **leaves**).

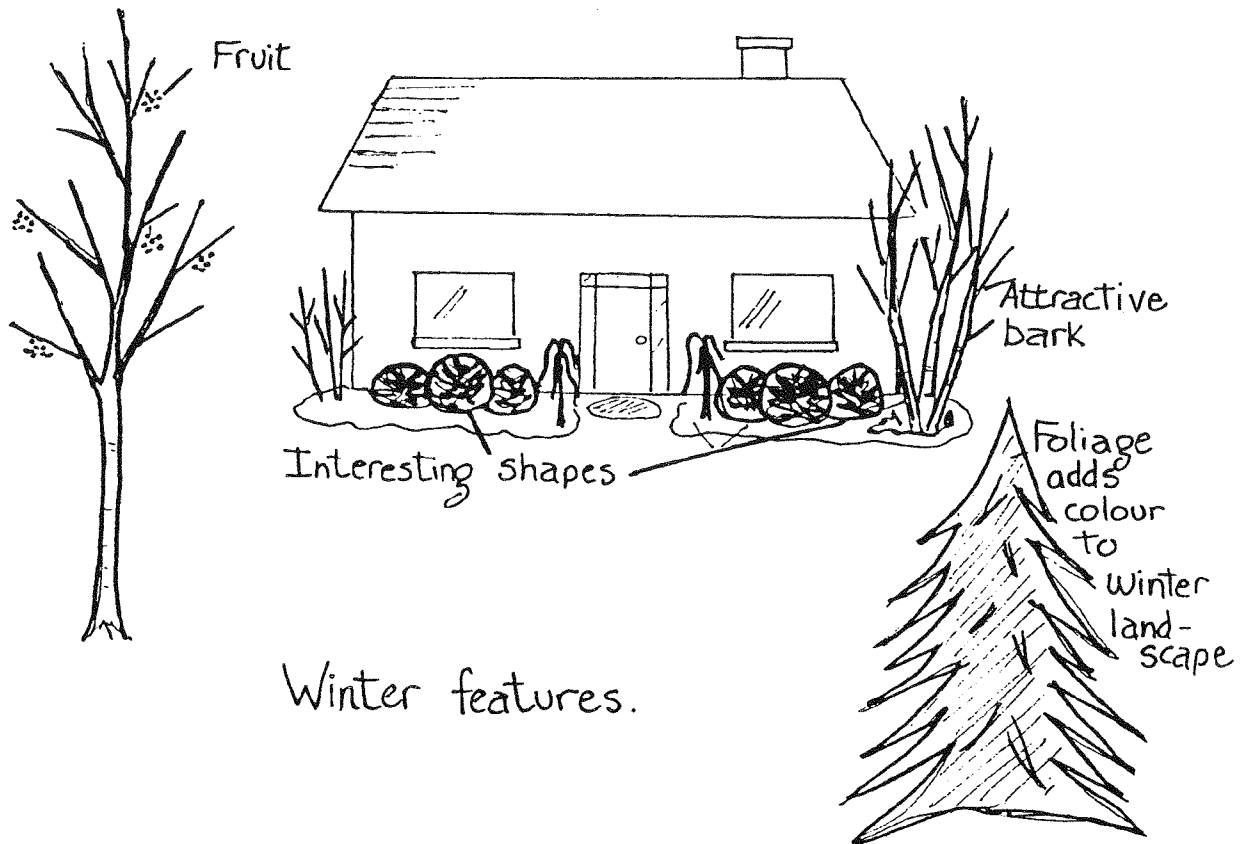
The **foliage** of any plant may be of interesting colour, texture or shape.



Deciduous plants spend about half of the year without leaves. Their **bark** is very important for adding colour and texture to the landscape. Think of birch trees in winter.

Trees and shrubs are sometimes weeping, rounded or multi-stem. These **shapes** add interest and make a plant a good specimen. Because of the forms of some shrubs, they are good for wildlife habitats or for preventing soil erosion on banks.

Plant sizes vary greatly from low growing ground covers to tall trees. **Remember that plants GROW.** Find out (from nursery catalogues or libraries) what the fully-grown sizes of plants will be before planting them as "babies".



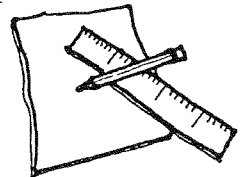
THE PLANNING PROCESS - FOR SENIOR MEMBERS

From the first meeting on landscaping, you are aware of some problems that can occur in the landscape. Let's have a look at how to put such problems on paper in order to solve them.

Tools you would need:

pencil
eraser
clipboard
measuring tape

metric ruler
metric graph paper
tracing paper

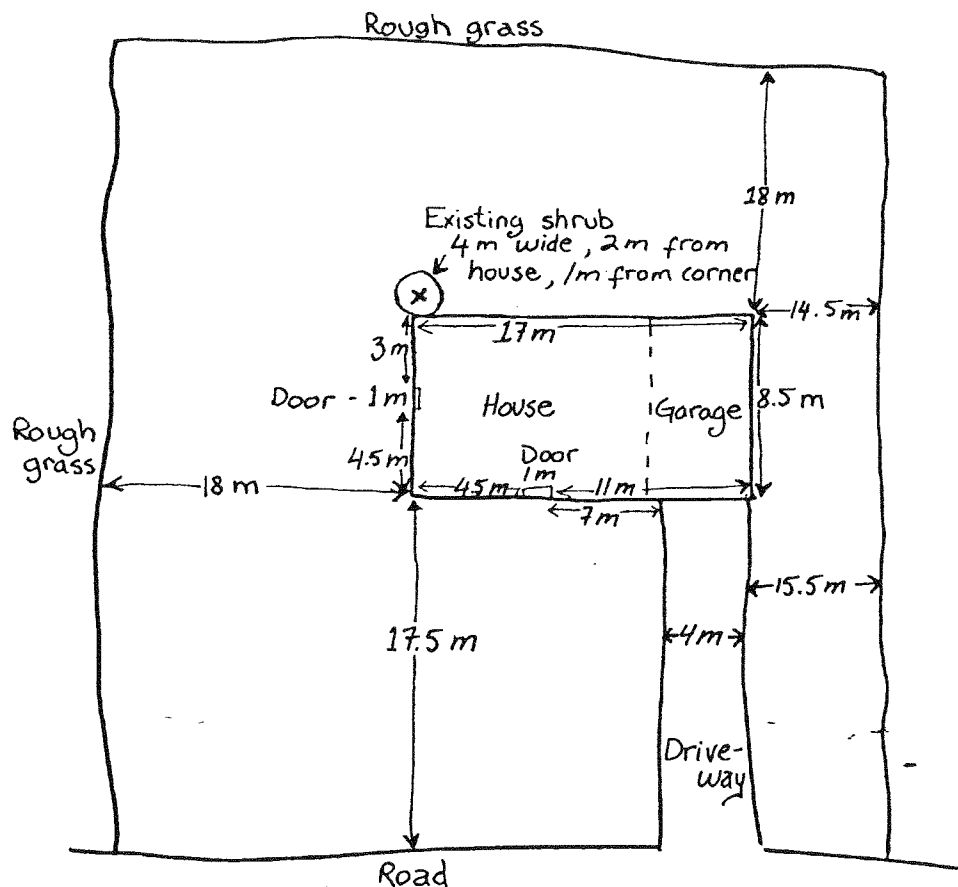


I. MAKE A ROUGH SKETCH

Imagine that you are going to make a rough sketch, as in the following diagram. You would need a pencil, eraser, plain paper, clipboard and measuring tape. Roughly sketch the house (and any other buildings that will be landscaped), the driveway and road. Next you would use your measuring tape to measure the important distances. Someone should help you by holding one end of the measuring tape. In this case they are:

- i) From the house to the lawn boundaries, i.e. the road and rough grass.
- ii) From the driveway to the boundaries.
- iii) The perimeter of house and garage. Note where doors are located. (It should be noted where the windows are, too. They are not shown here because the sketch of the house is too small).
- iv) Any existing trees and other stationary objects, e.g. large play equipment or clothesline pole.
Note: measure to centre of trees.

ROUGH SKETCH

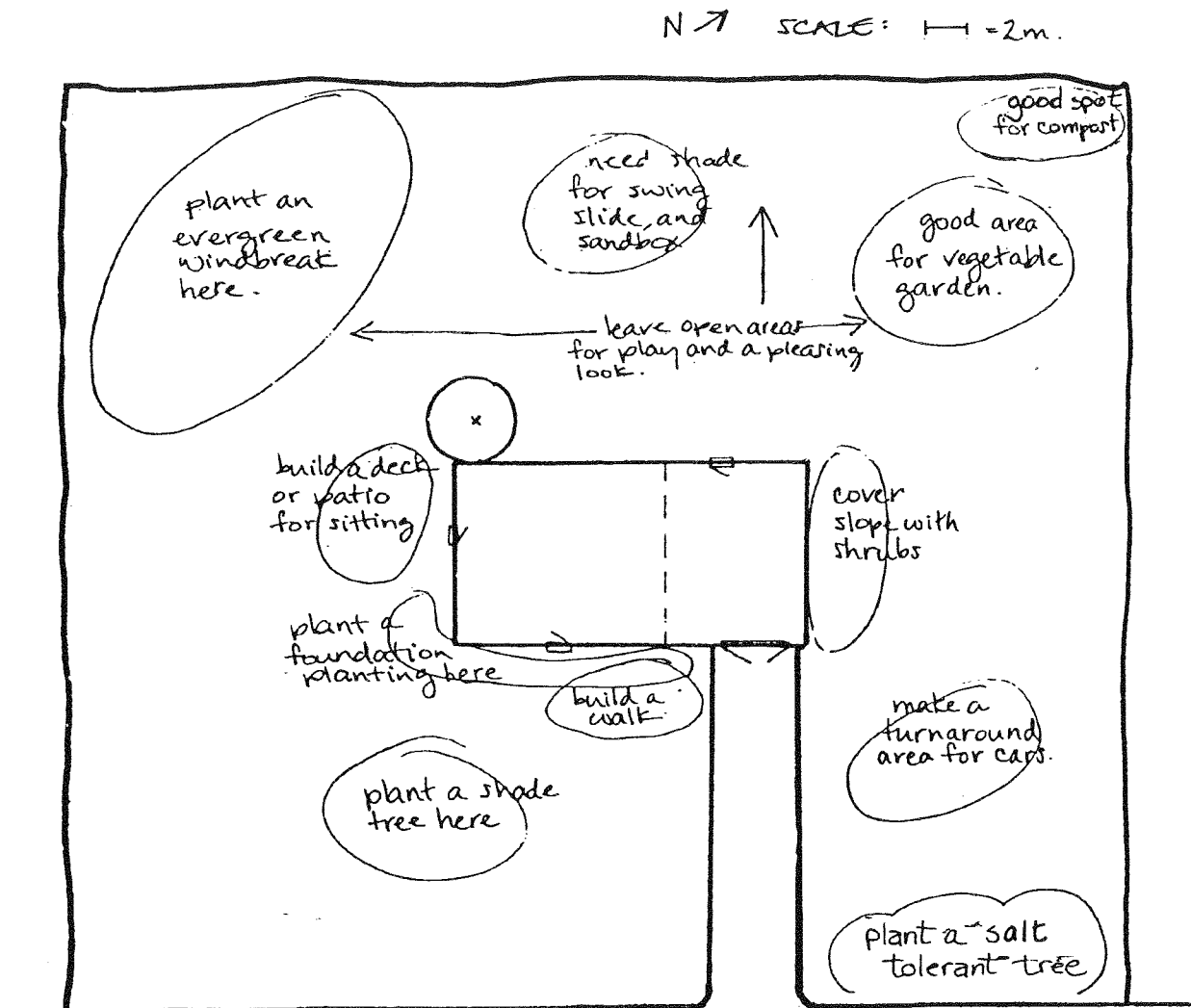


2. ADD NOTES

Now on the same diagram, think about other important information:

- i) Problem areas and good areas, i.e. things and/or views to keep.
- ii) Other things you might want to add or change. For example, in this diagram it is noted that a vegetable garden is going to be added. Where would you put it?
- iii) Which way is north, so you will know where the sunny and shady areas are.

By this time, you would have a very messy looking sketch, something like this one:



3. SKETCH TO SCALE

Now you would transfer the rough notes to a scale diagram (i.e. the house, driveway, boundaries and other existing features are sketched in correct proportion (or size) to each other.) It is easiest to do this on graph paper.

4. POSSIBLE SOLUTIONS

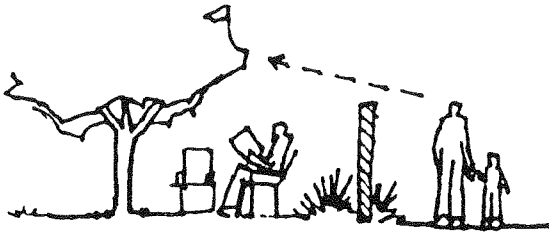
Sketch possible solutions by roughly outlining the areas to be landscaped. You could do this by laying tracing paper over the scaled plan, (this is called an overlay), so that your plan isn't spoiled. Your first solution may not be the best one. Note the scale you have used on the sketch.

5. DETAILED SOLUTIONS (SPECIFIC MATERIAL)

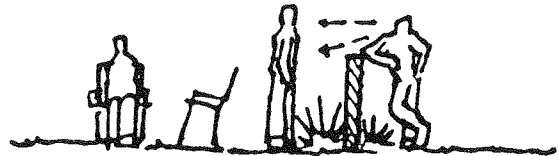
Before sketching detailed solutions, consider the effect of using different sizes of landscaping materials. For example, plants of different heights are viewed one way when people are standing and another way when they are sitting. Low plants cover the ground and help to keep people on the path. Trees that are at eye level or above block out the view.

A 2 m fence will give privacy as shown in diagram A. People walking along cannot see over it. A 1.2 m fence, as shown in diagram B, allows people walking by to see over it. It is not for privacy but for separating spaces, e.g. yards.

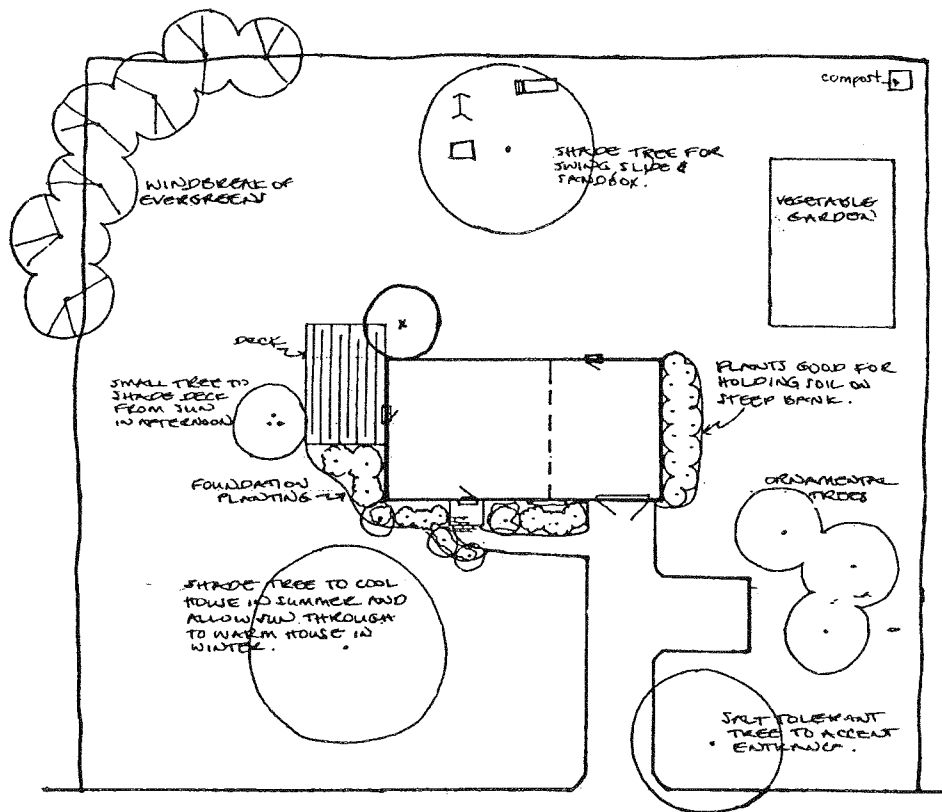
A.



B.



The next step is to select specific material for the best solutions. Again, it would be best if you used tracing paper as an overlay, so you can practice solutions without messing up your scaled sketch. Below is a sketch on graph paper with possible solutions.



THINGS TO KEEP IN MIND WHEN PLANNING ON PAPER

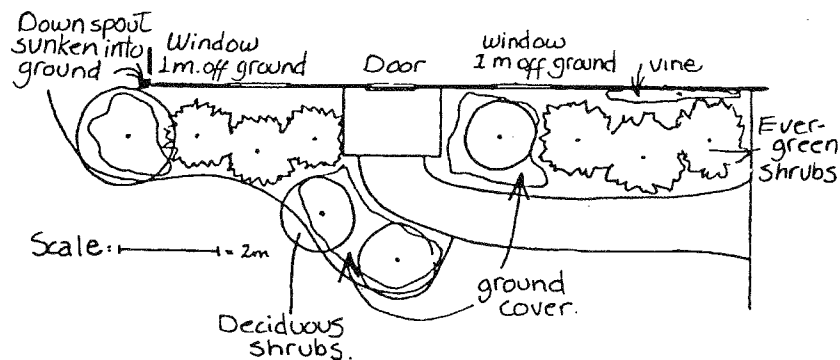
1. Consider the reasons for landscaping given on page 6 in the section "Why Landscape?". Include areas for a driveway and parking and for leisure time such as a patio, water feature, open play area, privacy or garden.
2. Decide what materials you want to use to get the right effect such as a) fence vs. hedge or b) deck vs. patio or c) brick vs. flagstone.
3. Examine the plan to see if it is workable. Ask yourself these questions:
 - a. Will it solve the problems?
 - b. Will it look attractive?
 - c. Will there be too much maintenance such as weeding, mowing, pruning and watering? Does the plan look jumbled, indicating improper spacing or that there is too much to mow around? Are the plants spaced properly?
 - d. Will the total cost make it worthwhile? Will it be too expensive to install all at once? If so, consider doing it over a few years.
 - e. Will you be able to handle the work yourself? Will you need heavy equipment to move large rocks or plants? Is this practical?

You may have to change your plan if it has some flaws such as these. Expect to sketch and resketch, and plan and plan again. That is how a good plan is made.

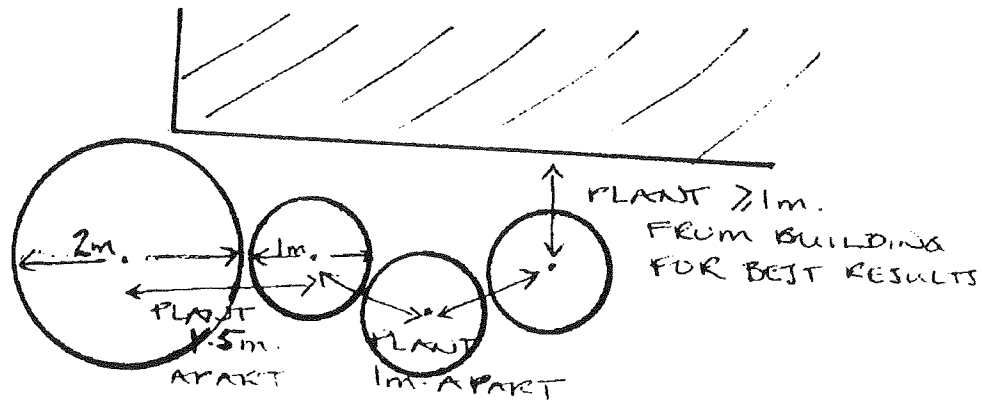
WHAT IS A FOUNDATION PLANTING?

A foundation planting refers to plants which are along the foundation of a house.

Let's take a look at sketching a foundation planting to scale. This diagram is a close-up of the same foundation planting shown in the detailed solutions diagram on page 15.

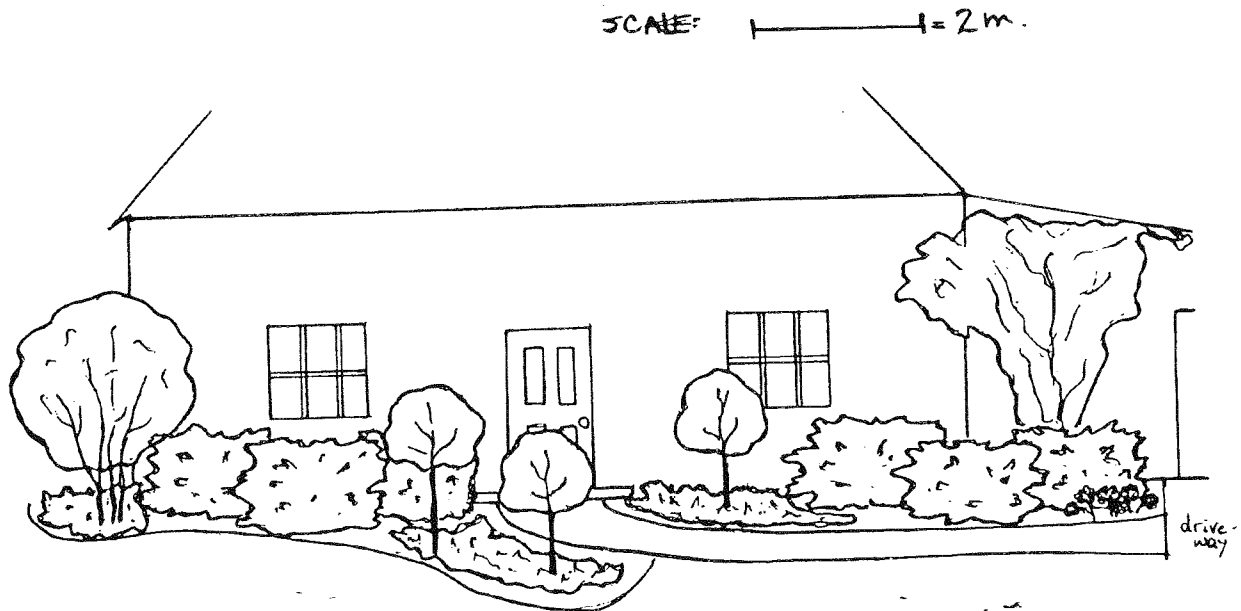


Notice that the plants are sketched so that they don't crowd each other, the house or the walk. To do this you must consider the full grown width of these plants and allow enough room for them. As an example, look at the next sketch.

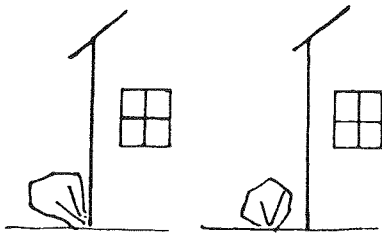


The next view gives you an idea of how the plants will look when they are fully grown.

Note that the two sides of the planting aren't the same, yet the planting looks balanced. This means that the height on one side is balanced by a similar height on the other side. A high plant on only one side would make the planting look lopsided. Try covering the highest plant on one side with your hand to understand this idea of balance better.

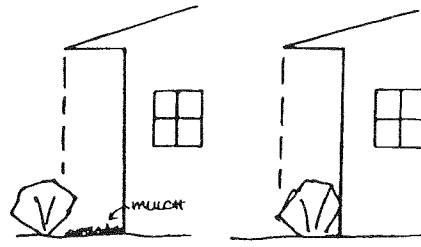


When planting near a building, allow enough room for the plants to grow properly. Look at the diagrams below to see what problems you might avoid.



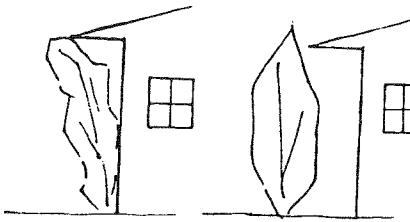
Plant is too crowded.

Good distance for plant at ≥ 1 m from wall.



Plant outside overhang - use
*mulch e.g. gravel.

Plant under overhang
- must be watered.



Leave plenty of headspace for evergreens by planting outside the overhang.

Allow plenty of headspace for deciduous trees, so they do not grow into the eaves.

MEASURING A FOUNDATION

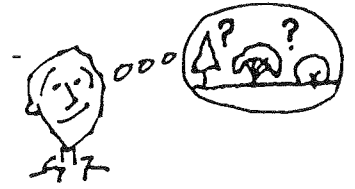
1. Take your measuring tapes and practice measuring out the foundation along one side of the host's house.
2. Measure locations of windows, door(s), walkways and steps. Remember to measure the heights of windows from the ground too.
3. If there is an overhang (as there is on many new houses) note its height from the ground and its width.
4. Sketch the information roughly on paper.
5. Note if there is heavy shade.
6. Note where the downspouts are located.

7. Note how high the foundation is.
8. Note which way is north.
9. Is there any other information that you should record?

BEFORE THE NEXT MEETING

1. At home, find a picture in a magazine or take a picture of your favourite home landscape design.

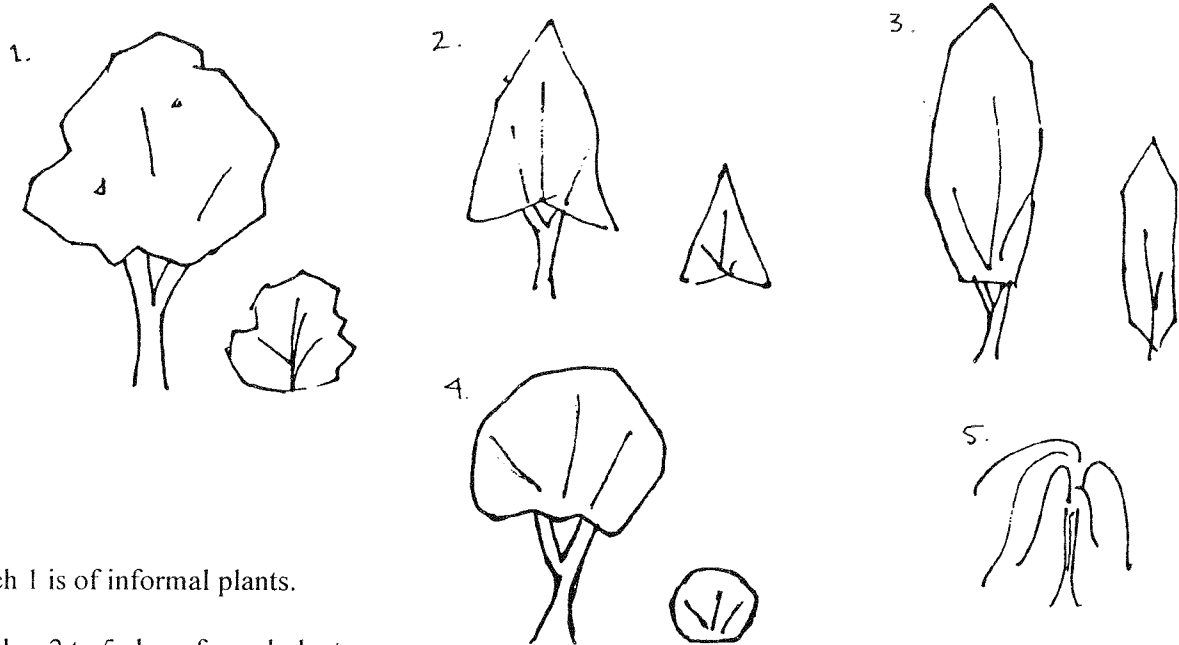
An Eye For Detail



ROLL CALL

Show a picture of the home landscape design that you found or photographed.

To create the most effective look in the landscape, the plants should only be as formal as the house and surroundings. A formal plant is one which has a very groomed appearance (this can be natural or clipped), or has leaves with different colours ie red, purple, yellow, white or light green. Below, are samples of formal and informal shapes.



Sketch 1 is of informal plants.

Sketches 2 to 5 show formal plants:

2. Pyramid shape ie Little leaf linden, *Tilia cordata* selections
3. Column shape ie Pyramidal English oak, *Quercus robur* 'Festigiata'
4. Globe shape ie Globe Norway maple, *Acer platanoides* 'GLOBOSUM'
5. Weeping ie. Red Jade crabapple, *Malus* 'Red Jade'

Remember to refer to the glossary on page 4 when unsure of the meaning of a word marked *.

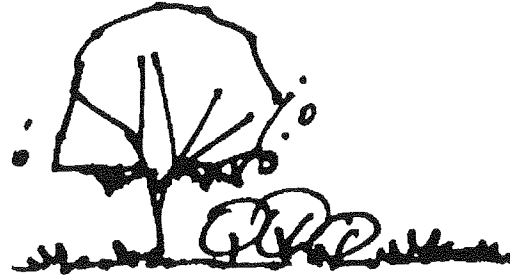
WHAT'S IN A NAME?

Not all plants can be selected by their names, but some names give a good clue about how formal they are. Some examples of formal plants are:

Golden Globe Cedar
Crimson King Maple
Weeping Peashrub

Some examples of informal shrubs/trees are:

Common Lilac Forsythia
White Ash Ninebark
Sugar Maple Mock Orange

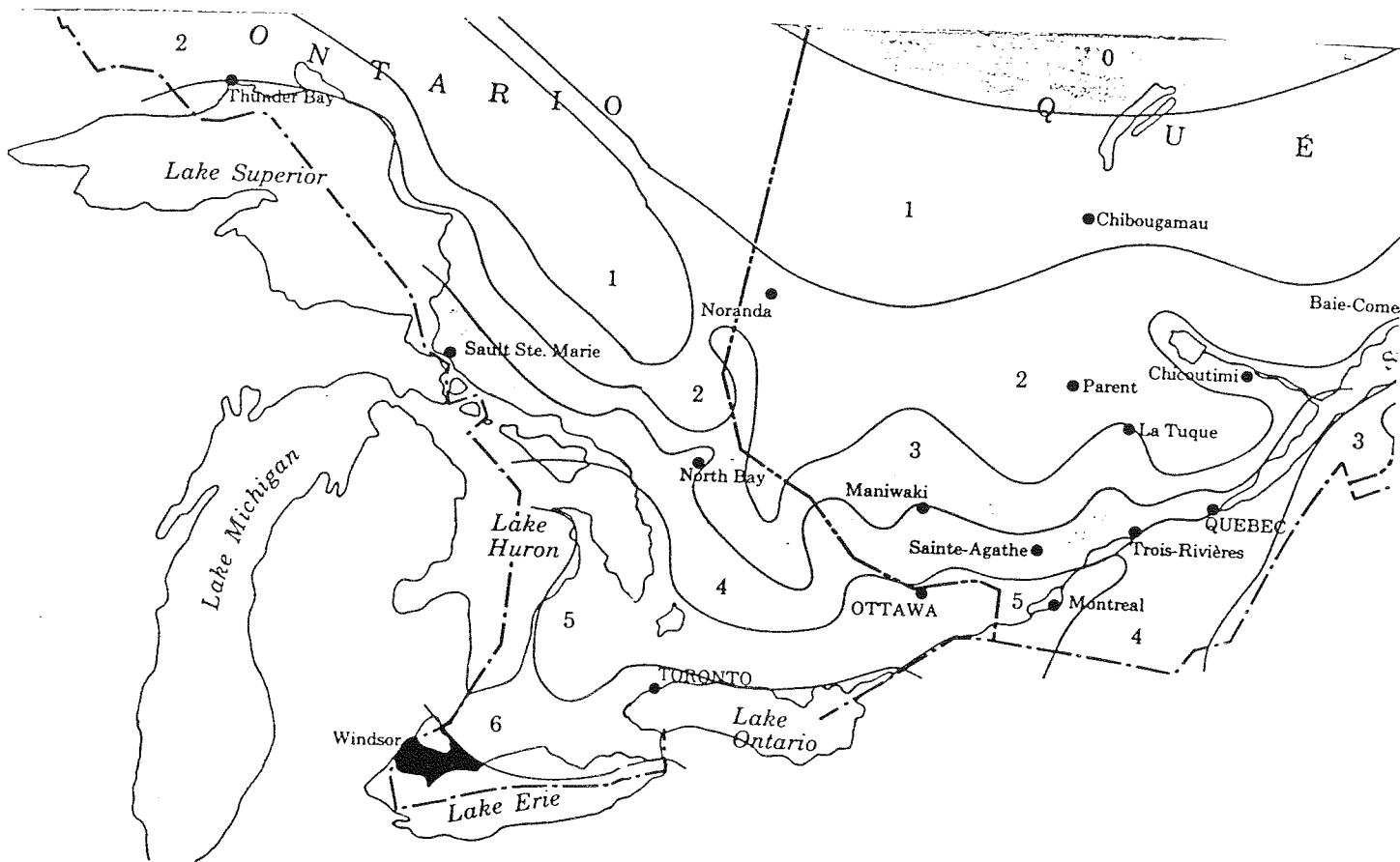


ENVIRONMENTAL ASPECTS

We can adapt to changes in the environment by taking shelter from unpleasant weather, but a plant can't do this on its own. Therefore, plants must also be chosen with these things in mind:

1. ***Hardiness.** A hardy plant is one which can survive the winter's temperatures, rainfall availability and maximum summer temperatures in a given geographic area. Have a look at the partial Canadian hardiness zone map on page ___ and find where you are located. Check your zone. If you are in hardiness zone 4a, for example, make sure you buy a plant that is hardy in zones 4a or lower, i.e. 0a, 0b, 1a, 1b, 2a, 2b, 3a, 3b or 4a. Note that "a" is colder than "b".
2. **Exposure.** Some plants cannot thrive if there is too much wind, sun or shade. Choose plants that can withstand the growing conditions in your area.
3. **Soil.** Some plants prefer moist soils while others prefer dry soils. Some can tolerate poor soils better than others. Choose plants to suit the soil conditions.
4. **Snow accumulation.** When planting, consider if snow will drift heavily and break young woody plants. Perennials, biennials and bulbs however, die down to the ground in the winter. A blanket of snow is good protection for them against cold temperatures.

PARTIAL CANADIAN PLANT HARDINESS ZONE MAP



TIPS FOR CHOOSING PLANTS

DO

- ✓ - Use formal plants on the groomed area surrounding the house.
- ✓ - Use informal plants on ungroomed areas.
- ✓ - Be aware when buying clipped shrubs that these shrubs must always be trimmed to keep their tight shapes.
- ✓ - If possible, use the Latin name when asking for a plant at a nursery. A nursery is a place where plants are grown and cared for. The English or common name is sometimes used for more than one kind of plant and you may not get the one you wanted.
- ✓ - When in doubt, ask the nursery person for advice.

DON'T

- X - Buy plants because they look "cute". They do grow and will no longer look "cute" when they are hanging over your front door. Spruce is a good example.
- X - Plant a tree that is going to look too big or too small beside the building when it is mature, or that could grow into a septic tank or weeping bed.
- X - Choose plants with foliage or flowers that will clash with buildings, e.g. pink flowers don't look good with orange brick.
- X - Overuse specimen plants. They fail to stand out when too many are used together.

HOW TO USE YOUR NURSERY CATALOGUE

The description of the plant in the nursery catalogue is a guideline of what to expect from your plant. Below are two examples of plants as they may appear in a catalogue.

1. Golden ninebark <i>Physocarpus opulifolius</i> "Aureus" 2.1m/zones 2b - 9 Attractive foliage. Frosty pink flowers in June. 80 cm BR.....price 80 cm 3 gallon/FPot....price	- English or common name - Latin name - expected potential height and hardiness - brief description - purchased size and forms BR = bare root (no soil) FPot = fiber pot 3 gallon size
2. Canadian hemlock <i>Tsuga canadensis</i> /10m/zones 4 - 9 Slow growing native evergreen. Soft foliage. Good for sun or shade. 50 cm 2 gallon.....price 80 cm B & B.....price 125 cm B & B.....price	- brief description containing planting tip - purchased sizes available B & B = balled and burlaped (burlap bag holds soil around the roots)

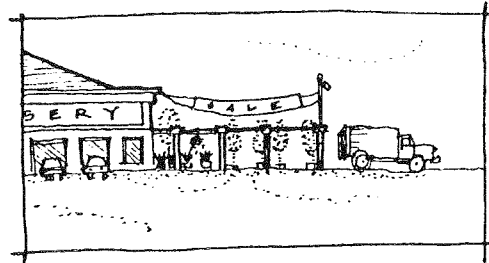
Sometimes there will be a picture of the plant in the catalogue. It will probably look as it would growing in an ideal situation and when it is mature.

NURSERY/GARDEN CENTRE FIELD TRIP

A nursery is where plants are produced/grown. A garden centre is where plants are retailed or sold. Some garden centres are nurseries - they sell the plants they produce themselves. But - not all nurseries are garden centres - they sell the directly to garden centres. Generally the public can NOT go there to buy plants. This trip's purpose is to familiarize yourself with the way a nursery/garden centre is set up and to learn how to choose plants. Try to find an example of each from the list below.

AT THE NURSERY/GARDEN CENTRE

- 1 kind of evergreen shrub
- 1 kind of evergreen tree
- 1 kind of deciduous tree
- 1 kind of deciduous shrub
- 1 kind of annual
- 1 kind of perennial
- 1 ground cover
- 1 kind of mulch
- 1 kind of fertilizer
- 2 kinds of containers for plants
- 1 gardening tool



BEFORE THE NEXT MEETING

1. What was the highlight of your trip to the nursery/garden centre?

Would you enjoy working at a nursery/garden centre? Why or why not?

2. Dig a sample of soil from your yard. Place it in a jar and bring it to the next meeting for some soil experiments.

Let's Plant A Tree



ROLL CALL

From your trip to the nursery/garden centre, name one thing you learned about plants that would help you at planting time.

PLANTING TIME

From your visit to the nursery you will remember that you can buy plants "B.R." which means bare root (no soil), potted (in plastic or fiber pots) or "B & B" which means balled and burlaped (usually for larger trees). The largest size of trees available are "W.B.", which means they are in a wire basket with soil. They are much too heavy to handle alone.

Plants that are container grown (i.e. B & B or potted) may be planted whenever the ground can be dug. You may wish to transplant (or move) something in your yard. Keep in mind that plants should only be dug for moving at certain times of the year. Use the following chart as a guide for the best time to transplant.

DORMANT	<ul style="list-style-type: none">- May move deciduous plants- May move evergreen plants
BUD BREAK	<ul style="list-style-type: none">- May move evergreen plants
FULL LEAF	<ul style="list-style-type: none">- May plant containerized/B&B/WB plants only
AFTER LEAF DROP	<ul style="list-style-type: none">- May move evergreen plants- May move most varieties of deciduous plants

Remember to refer to the glossary on page 4 when unsure of the meaning of a word marked *.

It is safest to move plants in the spring since some plants do not thrive after being moved in the fall. They do not have time to adapt for winter.

Nursery grown plants are easier to move and are more likely to survive than are ones moved from the wild. This is because of variations in soil conditions, light, exposure, and other environmental conditions. Root growth of nursery grown plants is better too.

Rare plants should not be moved.

Plants from the wild should not be moved - unless the area is going to be developed and the plants destroyed. Always get permission from the owner.

PLANTS AND THEIR PACKAGING

It is important to install a plant properly. B.R., B & B and potted plants are each treated a little differently.

B.R.:

- Make sure the roots don't dry out.
- Roots can be "muddied" - dipped into a mud slurry.
- Trim off any broken roots.
- Do not bend the roots to fit the hole; make the hole large enough to fit the roots.
- Do not compact soil with your foot, light tamp down and let water settle the soil.

B & B:

- Leave the burlap on.
- When the ball is almost covered, untie the burlap, spread it out and cover with soil. Make sure that all ropes and strings are untied from around the trunk.
- Burlap decomposes in the soil in about two years.

Potted:

- A metal or plastic pot must be carefully removed before planting.
- Do not break the soil root mass.
- A fiber pot should be removed.



LANDSCAPING TOOLS

You can do most landscaping with just these basic tools.

shovel, spade or trowel - for digging

hose or watering can - for watering

rake - for clean-up

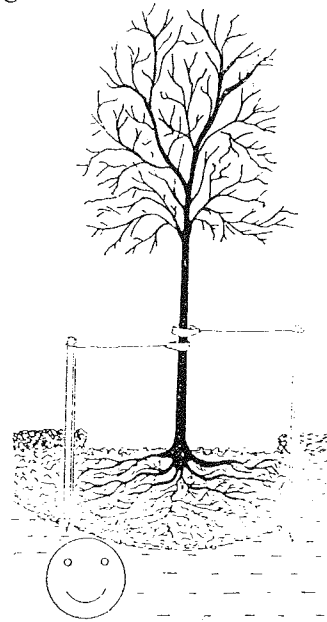
stakes, wire, old garden hose, hammer - for staking large trees



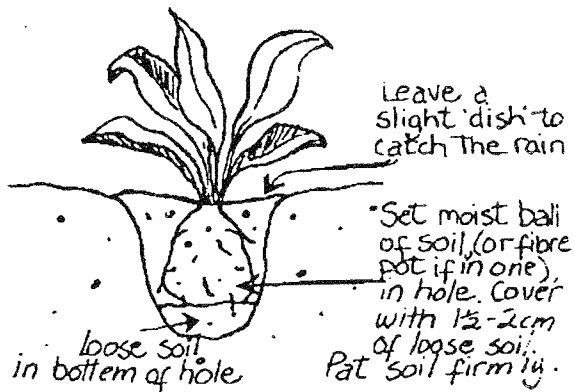
PLANTING DETAILS

When you dig a hole for a tree, keep in mind the size of the hole required and the type of soil in the hole. The actual hole should be 30cm wider around the perimeter of the root ball. Keep the root collar (the slight flare at the base of the plant) at soil level or slightly higher. Check on the location of all of your utility lines (i.e. telephone, gas, water, hydro) before you dig, so you don't do any damage.

A deciduous tree is shown in the following diagram, but the procedure is much the same for deciduous shrubs and evergreens.



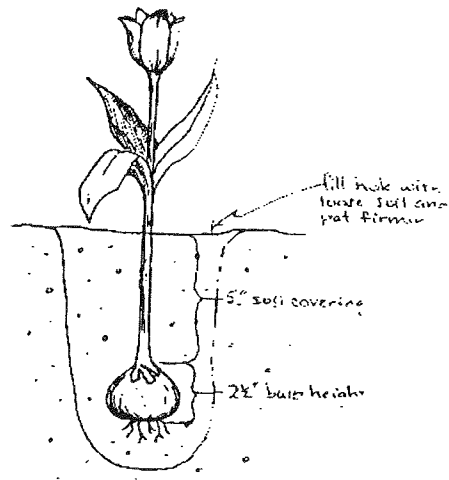
Transplanted annuals, biennials and perennials should be set in the soil as shown in this diagram.



Transplanting is best done in the evening or when it is overcast. The soil should be moist. For the next few days shade the plants with wood or cardboard on their south sides or cover with an inverted pot for a couple of days. Annuals must be covered overnight if there is a threat of frost.

Most bulbs grown in Ontario are hardy and should be planted in the fall. Tender ones (e.g. Gladiolus) should be planted in the spring. Dig and store them each fall.

Generally a bulb should be covered with soil equal to twice its height. i.e. a bulb 2.5 cm high should be covered with 5 cm of soil.



Roots are the silent partner of the beauty of a plant. Without them a plant couldn't stand up or absorb water and nutrients. Roots must be treated well.

WATERING

- Any new plant is very thirsty, so make sure that you give it a good drink right after planting.
- Pour on enough water to make a puddle around the tree, shrub or flower.
- Use watering to help settle the soil.
- Let the puddle soak in and then water again.
- For the rest of the season be sure to water your plants whenever there isn't enough rainfall, to keep them from drying out.
- Use mulch to help keep soil moist.
- OVERWATERING is the biggest KILLER of newly planted material.



STAKE A TREE

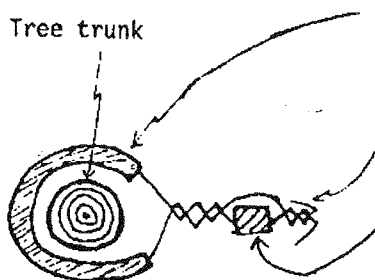
Trees need extra support when planted. (Shrubs, unless very large, do not get blown too much in the wind, so they don't need to be staked.) A single stake is fine for a small deciduous tree.

STAKING A SMALL DECIDUOUS TREE

Use old garden hose to protect the trunk from damage by the wire. The wire alone could cut into or scrape the trunk.

Use heavy wire. Pliers should be used to bend back the ends of the wire for safety.

Use a sledge hammer to drive the wooden or steel stake into the ground. Avoid putting the stake through the ball. Putting the wire through a hole in the stake keeps it from slipping. Remove the stake and all wires after one year.

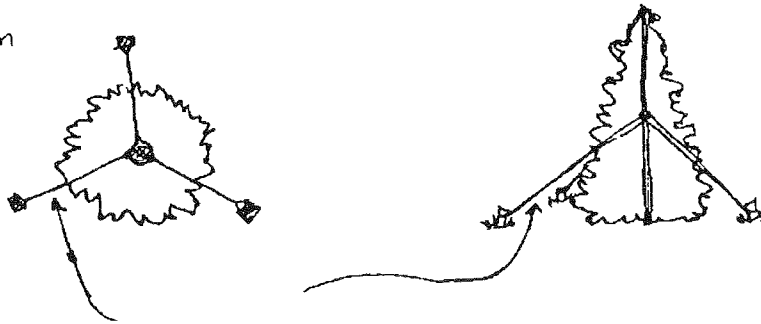


Cross-section view

STAKING AN EVERGREEN TREE

Evergreens and large trees should be staked with guy wires as shown below so branches and roots won't be damaged. Staking is done in the same manner as shown for a small deciduous tree.

Cross-section
view



Use guy wires (i.e. cables) to support an evergreen tree.
A large deciduous tree should be supported this way too.

SOILS

Can you determine your soil type?

Water-holding
Ability

most

CLAY TYPE

when wet, it is slippery and heavy
when dry, it is cracked and lumpy
when dug, water does not drain away quickly

}
} think of
} modelling
} clay



Clay loam
Silt
Silt loam
Loam
Sandy loam

}
} in-between soil types
}
}
}
}

SAND TYPE

when wet it will hold together
when dry it will fall apart
water drains away quickly

}
} think of a beach
}

least

WHAT YOU SHOULD DO WITH PROBLEM SOIL

- If the soil in the hole is very poor (i.e. rocky or gravelly), you should remove it and replace it with a good loam topsoil. A little fertilizer, such as 7-7-7 may be mixed in as an *amendment.
- A heavy clay soil should be loosened with a fork at the bottom of the hole then water will drain better.
- A very sandy soil should have peat moss or compost added to it. Then it will hold more water. Materials such as peat moss and compost are amendments.
- Choose plants that do well in your soil type.

PREPARING PLANTS FOR THE WINTER

WOODY PLANT CARE



Newly planted evergreens should be wrapped with burlap for the first winter. This is especially important if they are exposed to south sun or north and west winds. It may be necessary to wrap the evergreens every year, so that they do not get *winterburn. This is a condition causing the needles to turn brown. Wrap with burlap just before the snow falls. Unwrap when the harsh winter is over.

Use wire mesh or standard tree guards from a nursery to protect young plants from mice especially. They find tender bark very tasty. Deer and rabbits love to "prune" plants by nibbling back the tender twigs and buds. Mesh should be 2-3" in the ground and not against the trunk.

Note: Burlap wrap and plastic or wire mesh tree guards are the best to use to protect young trees. Never use plastic wrap. Plants wrapped in plastic will "cook" in the sun. Plastic raises the temperature under it and does not allow any air in, so the needles may be scorched or the bark damaged by too much moisture.

PERENNIAL CARE

Snow covering a perennial bed for most of the winter protects the roots from being damaged by freezing and thawing. Evergreen branches placed over tender plants will help protect them if there isn't enough snow. Put the branches on after the ground freezes and remove them when your perennials start to grow. You could cut up your Christmas tree, in early January, for this purpose.

BEFORE THE NEXT MEETING

1. Plant any woody or herbaceous plant. What special care did it need in putting it into the ground?
What was the texture of the soil in the hole?

OR

2. Take a soil test and send it to a lab to be analyzed to find out what amendments it needs to grow the plants you want. Include the report from the lab with your club or in your members' manual.

Keep It Growing



ROLL CALL

What kind of plant did you plant and for what purpose?

OR

Show the report from the soil test that you took.

After you have gone to the work of installing (planting) your plants, you'll want to keep them looking healthy. Plants do not have the demands of a pet. They do, however, need continual care. You feed, groom and watch your pets' health and you must do the same for your plants' health if you expect them to grow well.

WHAT IS FERTILIZER?

Fertilizer is natural (organic) or synthetic (inorganic) materials, spread on or worked into the soil to make it more fertile (ie. to make plants grow better).

Four types of fertilizer are:

1. Manure
2. Compost
3. Bone meal
4. *Commercial fertilizer



Compost is made from fruit and vegetable scraps, plant trimmings, leaves and grass clippings. When these wastes are piled together they slowly break down into a soil-like material.

All purchased fertilizers have three important numbers on the bag. They stand for N (Nitrogen), P (Phosphate) and K (Potash). N, P and K are called *macronutrients and are essential to a plant's good health, as you can see in the box on page 36.

Remember to refer to the glossary on page 4 when unsure of the meaning of a word marked *.

Nitrogen N	Phosphorus P	Potassium K
for top growth	for root growth and flower development	for uptake of *micronutrients
if not enough, leaves will turn yellowish	if not enough, a newly transplanted plant will take longer to start growing	if not enough, a plant will show other signs of poor health, e.g. leaf *mottling

WHEN TO FERTILIZE PLANTS

- When planting. Trees and Shrubs - A small amount of a fertilizer such as 0 - 20 - 0 (0 Nitrogen - 20 Phosphate - 0 Potash) will help roots start to grow. Some bone meal could be used instead. These sources must be incorporated into the soil.

Flowers - Mixing well-rotted manure or compost or some bone meal into the soil, before planting, is helpful.

Nitrogen in low rates is beneficial. Nitrogen can burn the roots, so it should be used carefully. (Some fresh manures have a lot of N, so don't use them either. Well rotted manures are fine to use.)

- Established plants. Trees and Shrubs - Usually a small amount of lawn fertilizer in the spring (2 weeks before bud break) is fine. Do not fertilize from mid-July to mid-September. Something like 7 - 7 - 7 (7 Nitrogen - 7 Phosphate - 7 Potash) could be used. P and K need to be incorporated.

Flowers - A couple of weeks after they are moved, flowers should be fed with a fertilizer such as 5-10-5 or 8-16-8. These are ones which is highest in phosphorus. They will encourage flowering.

TIPS

- Always read the instructions before fertilizing and apply fertilizer according to directions.
- Do not overuse any fertilizer.
- Slow release commercial fertilizer has a better long term effect for the plant. It is coated with a substance that makes it slowly release its nutrients into the soil. This keeps Nitrogen from burning the roots.

INSECTS AND DISEASE

SOME INSECTS AND DISEASES IN THE LANDSCAPE

Insect	Some Plants Attacked and Description
Aphid	Cherry, apple, birch, rose and many flowers. These tiny crawling insects may be green, red, brown or black. They cluster on new growth or the underside of leaves and secrete a sticky substance called "honeydew" that ants like to eat. Often the leaves are curled from the insect sucking the sap. May be seen in summer.
Birch leaf miner	Most birch trees. The *larvae make paths inside the leaves, causing a brown appearance. May be seen June through summer.
Black vine weevil	Yews, euonymus, rhododendron and Begonia. Beetle feeds on needle edges, by night only, in late June to September. The larvae feed on roots, causing plants to grow poorly and look dry. Look for crescent shaped "bites" in needles.
Lilac borer	Lilacs. In May larvae tunnel into trunks leaving a small hole and bits of sawdust. They weaken the tree and sometimes the tree will break in a windstorm.
Spruce budworm	Spruce and fir budworms eat needles and bore into the newly opening leaf buds. Stunted growth can occur. Seen in May.
Sawfly caterpillar	Mountain ash and pine. Masses of larvae *defoliate trees in June. These caterpillars blend in with the foliage but rear their heads and back ends when you come close.
Tent caterpillar	Cherry and crabapple. Larvae *defoliate trees. They are easily seen because of their "tents". May be seen in spring. Egg masses are hard, brown, foam-like collars on twigs that can be easily seen in early spring.
Cedar leaf miner	White cedar. Larvae feed on inside of tips of foliage causing them to turn brown. May see damage in summer. Adults are tiny gray moths which fly out of cedars when you brush against the trees in June or July.
Maple bladder gall mite	Red and silver maples. Mites feeding causes round wartlike bumps or galls to form on the upper surface of leaves.
Maple spindle gall mite	Sugar and silver maples. Many thin pointed galls, approximately 5 mm long, form on the upper surface of leaves. May see both of these in summer.
Pearslug	Ornamental cherries and almonds, hawthorn, pear and cotoneaster. Larva, a sawfly, looks like a small slug which is green at first and orange later. It *skeletonizes leaves. May be seen in summer.
Pine needle scale	Pine and spruce. It looks like white specks on the needles. Insects suck the sap. May be seen through scale summer.
Oystershell scale	Ash, dogwood, lilac, willow. Hard covered insects look like oystershells on the bark. They suck the sap. May be seen through summer.
Snails and slugs	Many shrubs and flowers, especially those with mulch or ground cover around them. They hide by day in dark, moist places and feed by night. Look for glistening slime trails.
Disease	Some Plants Attacked and Description
Black knot	Cherry, flowering almond. Black lumps appear on branches. May be seen any time of the year.
Canker	Poplars. This fungus disease causes the bark to die in spots on the trunk and branches. Branches die from the top down. Fungi will not affect a healthy tree.
Powdery mildew	Lilac, Zinnia, Philox. Disease causes a white dusty look on leaves and stems. It occurs in late summer when days are humid and nights cool. Not usually damaging.
Scab	Crabapple, Pansy. Brown scabs appear on leaves and fruit. The foliage can be badly damaged. May be seen in spring or summer.

NOTE: -Only ADULTS should try to control pests with chemicals.

-Always read the label and follow the exact instructions when applying chemicals. Wear protective clothing to prevent chemicals from coming in contact with the skin.

DANGER POISON WARNING POISON CAUTION POISON

OTHER AILMENTS

Besides pest problems, plants can become unhealthy from other things in the environment. The following things can cause root, leaf, stem or trunk injury to plants.

- air pollution or smog
- injury from sun or wind
- road salt damage
- poorly drained or compacted soils
- insecticide spray applied when the weather is too hot
- weed killer injury when the chemical is applied too close to trees, shrubs or flowers
- too much fertilizer
- mouse or rabbit damage may kill a tree

PRUNING WOODY PLANTS

PRUNING SAFETY

Pruning tools must be sharp. Dull ones may leave a rough cut, allowing insects and disease to damage the plants easily. This means that the tools are dangerous, so be cautious when handling them.

WHY PRUNE?

1. To remove dead and diseased wood.
2. To shape and to correct damage.
3. To control size.
4. To force new growth and increase flowering.
5. To increase the strength of a tree.

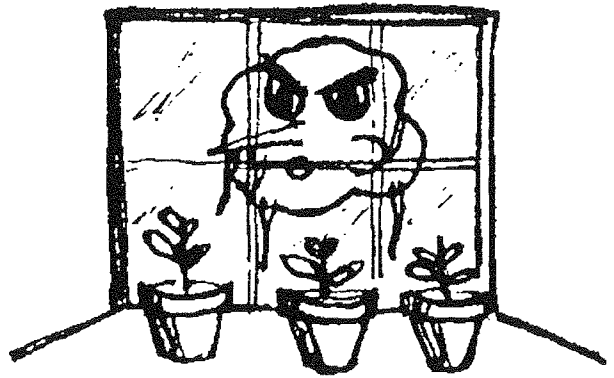


WHEN TO PRUNE

- It varies according to the type of plant and the reason for pruning.
- Repair work to remove diseased or damaged branches should be done immediately.
- Generally late winter or early spring is best for most deciduous plants.
- Some plants "bleed" when pruned in early spring. Maple, birch, walnut and grape are examples. "Bleed" means that the plants lose sap. Prune these plants in early summer instead.

GROOMING THE FLOWER BED

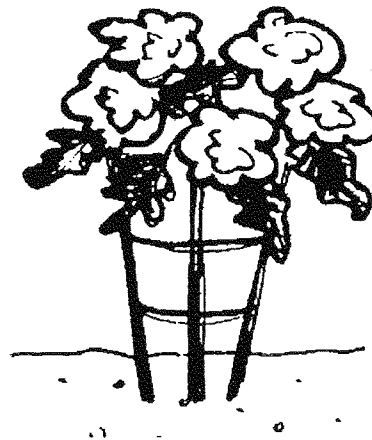
- Frost is an enemy of annuals. Plant annuals outside after danger of frost is past.



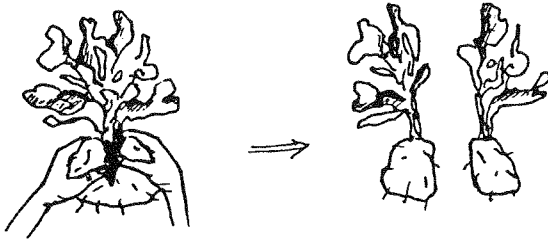
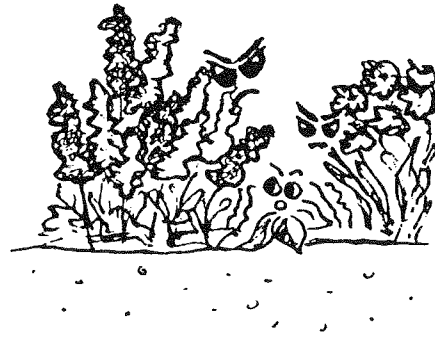
- Big weeds are tough to remove. Weed at least once a week to get them when they are small, or add mulch to stop weed growth.



- Tall plants or ones with heavy flowers need support to keep them upright.

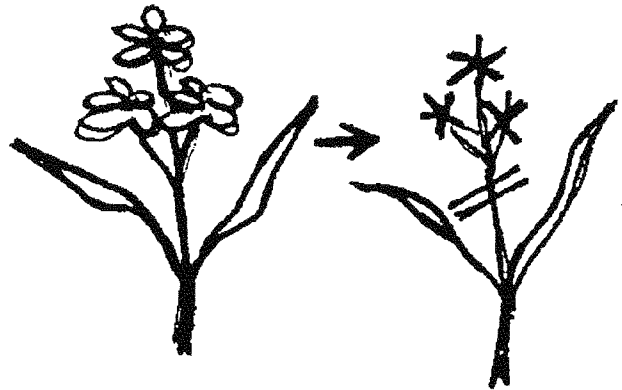


- Fast spreading plants should be kept from taking over. They can be divided every 2 or 3 years as shown.

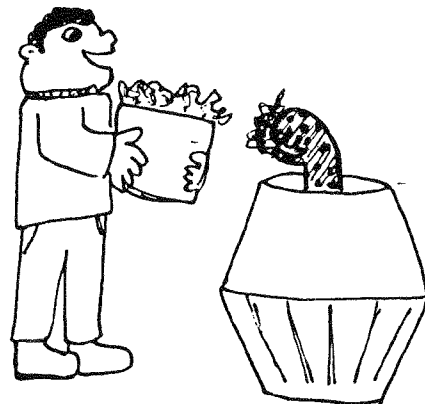


You can divide an established perennial to form two plants. Gently pull apart the moist soil ball as shown. Cut the crown with a sharp knife. Replant the new plants.

- Cut off faded flowers or leaves.



- In fall, put dead annuals in the compost pile. Cut off perennials in the spring. The many tops add to the winter landscape and help to collect the snow.



BEFORE THE NEXT MEETING

1. Play Detective! Take a walk around your yard or neighbourhood. Check for pests and damage on woody plants. Use the pest charts to help you.

OR

2. Senior Members: With parental consent, practice corrective pruning. What type of plant did you prune; what tools did you use. Why did you prune it?

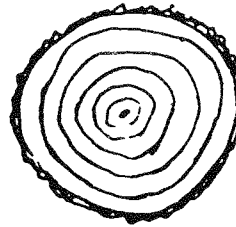
Junior Members: Do any necessary grooming of a flower bed, either your own, or one of a neighbour or friend.

3. Bring in a sample or a picture of a plant pest problem for Roll Call.

JUDGING ACTIVITY - OPTIONAL

Judge the following set of pruning tools according to their use in cutting off a branch this size:

The branch is above the head but within arms length.



TOOLS

1. Secateurs



2. Loppers



3. Pruning saw



4. Pole pruners





Finishing Touches

ROLL CALL

Show your sample or picture of a plant pest problem. Describe the insect or disease and the damage that has been caused.

FLOWERS

You can use a combination of annuals, biennials, perennials and bulbs in flower gardens. These will be abbreviated to A, Bi, P and Bu respectively below. Here is an example of each.

Annual (A)	Marigold
Biennial (Bi)	Honesty (Money plant)
Perennial (P)	Phlox
Bulb (Bu)	Daffodil

WHY USE FLOWERS? (Types to use are noted in short form).

- i) To fill in gaps for the first few years until the shrubs grow to their full size - A, Bu.
- ii) To accent the shrubs, lawn, deck, fence, etc., with some colour and different form - A, Bi, P and Bu.
- iii) For a longer flowering season in your yard - A, Bi, Bu and P.

Note: Annuals bloom for most of the summer so they give more constant colour than do biennials, perennials and bulbs. However, they live for only one season.

HOW TO USE FLOWERS EFFECTIVELY (Types to use are noted in short form)

- i) Use colours that compliment the existing plant material, house and hard surface material - A, Bi, P and Bu.
- ii) Mass under trees or in beds - A, Bi, P and Bu.
- iii) Use them to cover a fence, trellis or retaining wall - A.
- iv) Brighten up a deck or patio with planters - A.



Remember to refer to the glossary on page 4 when unsure of the meaning of a word marked *.

- v) Window boxes and hanging baskets add colour above the ground - A.
- vi) Use some in rock gardens - Bu and P.
- vii) Naturalize bulbs in grassy areas or ground covers - Bu.

To naturalize means to install plants at random (ie. not in a pattern) to make them look like nature planted them.

MULCH: THE BLANKET FOR THE BED

Most mulches add to the cost of landscaping, but they are useful when added to beds for these reasons:

1. To keep moisture in the soil.
2. To keep many weeds from growing.
3. To prevent roots from freezing and cooling effect in summer.
4. To add a neat appearance.

TYPES OF MULCHES

Organic

- bark chip
- cocoa bean

These three mulches break down gradually. It is best to add a little new mulch each year. The plants may need a little extra Nitrogen since N is used in the breakdown process. Remember to fertilize carefully.

Inorganic

- crushed stone or brick
- grass clippings

Note: Mulches of bark chips, cocoa beans and stones make the planting of annuals difficult.

EDGING: THE TRIM FOR THE BED

Edging the bed can be done with an edger or spade. However if you can afford it an edging material (i.e. a material that creates a solid edge along a planting bed) can be useful for these reasons:

1. It gets rid of the need for edging with a tool.
2. It prevents grass from growing into the bed.
3. It is neat in appearance.

BEST TYPES OF EDGING

These three types of edging make a smooth edge that is easier to trim along than is an edging of rough stones.

- A. **Brick** is ideal laid side by side. It makes a wide edge and can be curved.



Top view shown

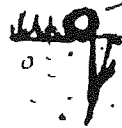
Fill gaps with sand

- B. **Black plastic** is good because it is rounded at the top, making a barrier. It curves easily and is less expensive than brick but not as attractive.

i) Top view



ii) Side view



Rounded top

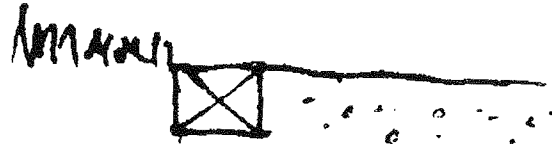
Spike secures edging in the ground.

- C. **Pressure treated wood** makes a wide border, but care must be taken to keep it from heaving from the frost. It may be set on top of the ground or sunken to ground level. It creates a straight line only.

i) Side view of wood laid on the ground



ii) End view of wood sunken to ground level



LAWNS

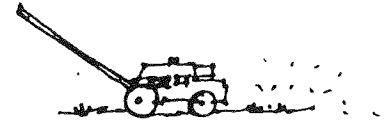
A lush, green lawn is the touch that gives the entire project that finished look. Grass is the only ground cover that can be walked and played on over and over, and it is the least expensive ground cover.

Imagine you are planting a lawn. This is what you would need to do from start to finish.

1. Remove any large stones
2. Rake to smooth the soil
3. Seed in spring or fall or put down sod in spring, summer or fall.
4. Water thoroughly, and keep watering if weather is dry
5. Mow the newly established lawn
6. Trim grass along walks, around trees, etc.



MOWING NOTES



- Grass will stay healthier if it is not cut shorter than 4 cm.
- Mow the grass when it is dry for a good clean cut.
- Keep the lawn mower blades sharp. Otherwise the grass blades will turn brown from bruising.
- Rake off excess grass clippings so that they don't smother the lawn underneath.
- Grass clippings are excellent clean compost material as long as herbicides haven't been used on the grass.
- When using a grass trimmer/weed whipper, be careful not to let the cord hit young tender bark. It can badly damage or even **girdle** and kill a tree. Wear eye protection and keep feet and legs covered.

A tree is girdled when a strip of bark is removed around the entire circumference of the trunk. The missing strip of bark might be very narrow, but it still cuts off the supply of water and nutrients from the roots, killing the tree.

- Power lawn mowers are very dangerous. Keep feet and hands away from moving blades. Treat them with respect, and use these safety tips.

SAFETY TIPS

- shut off the motor before leaving the mower unattended to take a phone call, get a drink, etc.
- wear safety footwear, preferably with steel toes
- keep hands and feet away from the moving blades
- remove sticks, stones, bones and other objects from the lawn before mowing. If run over, they may shoot out and harm you, or a bystander. They may also damage mower blades.
- make sure small children and pets are not on the lawn when mowing
- be careful not to run over electric-mower cords
- always shut off the mower and wait until the blades stop turning before cleaning the blades, unclogging the mower, or removing the grass catcher
- beware of hot mower parts
- turn off mower when refuelling
- turn off mower to adjust wheel height
- when using a push mower, cut across slopes. You might slip under the blades if you go up and down slopes.
- a riding mower is less likely to tip if you mow up and down slopes rather than across slopes. Avoid very steep slopes.

OTHER FINISHING TOUCHES

- Water features, such as a reflecting pool or fountain, add a pleasant look and sound to your yard.
- Lighting can be used to accent a walk, tree(s) or water feature.
- Lawn furniture, benches, etc. make nice resting spots for you to enjoy your landscape.
- Arbors and trellises can be attractive ways to add interest to your yard.
- Lawn ornaments may be added according to your taste, but be careful not to add too many because your lawn will become overdecorated and look cluttered.
- Bird houses, feeders and baths will encourage visits from a variety of birds.

BEFORE THE NEXT MEETING

1. Note a "finishing touch" you plan to add at your home.
2. Report any extra landscaping you completed during this project.

LANDSCAPING RELATED PUBLICATIONS

1. OMAFRA Publication #64
Insect and Disease Control in the Home Garden
2. OMAFRA Factsheet #93-101 (Agdex 281)
Flowering Annuals for the Home Garden
3. OMAFRA Publication #358
Herbaceous Perennials
4. OMAFRA Publication 89-115
Planting Trees in the Landscape



SHOWY FEATURES OF SOME TREES, SHRUBS, VINES AND GROUND COVERS

FLOWERS

FRAGRANT

- Buffalo currant (*Ribes odoratum*) - yellow flowers
- Flowering crabapple (*Malus*) - species have white, pink or red flowers
- Lilac (*Syringa*) - many colours
- Linden (*Tilia*) - flowers are not showy
- Mockorange (*Philadelphus*) - white flowers
- Rose (*Rosa*) - many colours
- Russian olive (*Elaeagnus*) - yellow flowers
- Viburnum (*Viburnum*) - several varieties, white or pink flowers

SHOWY

- Beautybush (*Kolkwitzia amabilis*) - pink flowers
- Buffalo currant (*Ribes odoratum*) - yellow flowers
- Clematis (*Clematis*) - red, pink, purple, blue and white vines
- False spiraea (*Sorbaria sorbifolia*) - cream-coloured flowers
- Flowering crabapple (*Malus*) - species have white, pink or red flowers
- Hawthorn (*Crataegus*) - pink, white or red flowers
- Horse chestnut (*Aesculus*) - white flowers
- Hydrangea (*Hydrangea*) - white, pink or blue flowered species
- Lilac (*Syringa*) - many colours
- Mockorange (*Philadelphus*) - white flowers
- Oregon holly grape (*Mahonia aquifolium*) - yellow flowers
- Rhododendron (*Rhododendron*) - many colours, needs acid soil
- Rose (*Rosa*) - many colours
- Trumpet vine (*Campsis*) - scarlet
- Viburnum (*Viburnum*) - several varieties, white or pink flowers

COLOURFUL FRUITS

RED OR ORANGE

- Amur maple (*Acer ginnala*)
- Apple (*Malus*) - many species
- Bittersweet (*Celastrus*)
- Buffaloberry (*Shepherdia canadensis*)
- Cherry (*Prunus*) - several species
- Cotoneaster (*Cotoneaster*)
- Euonymus (*Euonymus*) - several species
- Hawthorn (*Crataegus*)
- Honeysuckle (*Lonicera*) - several species
- Mountain ash (*Sorbus*) - some species
- Rose (*Rosa*) - many species
- Sea buckthorn (*Hippophae rhamnoides*)
- Sumac (*Rhus*) - some species
- Viburnum (*Viburnum*) - several species
- Yew (*Taxus*) - many species

BLACK, BLUE OR PURPLE

- Boston ivy (*Parthenocissus tricuspidata*)
- Chokeberry (*Aronia melanocarpa*)
- Chokecherry (*Prunus virginiana*)
- Common juniper (*Juniperus communis*)
- Corktree (*Phellodendron*) - some species
- Currant (*Ribes*) - some species
- Elderberry (*Sambucus*) - some species
- Hackberry (*Celtis occidentalis*)
- Holly (*Ilex*) - several species
- Jetbead (*Rhodotypos scandens*)
- Mulberry (*Morus alba*)
- Oregon holly grape (*Mahonia aquifolium*)
- Privet (*Ligustrum*) - some species
- Serviceberry (*Amelanchier*) - ~
- Viburnum (*Viburnum*) - several species

COLOURFUL FALL LEAF COLOUR

Purple Wintercreeper euonymus (*Euonymus fortunei* var. *coloratus*)
Horse chestnut (*Aesculus*)
Larch (*Larix*) - several species
Maple (*Acer*) - many species
Paper birch (*Betula papyrifera*)
Oak (*Quercus*) - many species
Poplar (*Populus*) - several species
Rugosa rose (*Rosa rugosa*)
Serviceberry (*Amelanchier*) - many species
Sumac (*Rhus*) - several species
Viburnum (*Viburnum*) - many species
Winged burning bush (*Euonymus alatus*)
Witch hazel (*Hamamelis*) - several species

FOR DRY OR SANDY SOILS

Amur maple (*Acer ginnala*)
Ash (*Fraxinus*) - some species
Beautybush (*Kolkwitzia amabilis*)
Broom (*Cytisus*) - many species
Buffaloberry (*Shepherdia*)
Common sea buckthorn (*Hippophae rhamnoides*)
Genista (*Genista*) - many species
Juniper (*Juniperus*) - some species
Pea shrub (*Caragana*) - many species
Pine (*Pinus*) - some species
Privet (*Ligustrum*) - many species
Rugosa rose (*Rosa rugosa*)
Russian olive (*Elaeagnus*)
St. John's wort (*Hypericum*) - many species
Sumac (*Rhus*) - some species

YELLOW OR WHITE

Dogwood (*Cornus*) - many species
Snowberry (*Symphoricarpos albus* var. *laevigatus*)
Yellow fruited viburnum (*Viburnum opulus* "Xanthocarpum")

COLOURFUL OR INTERESTING BARK

Broom (*Cytisus*) - green bark
Burr oak (*Quercus macrocarpa*) - corky bark
Cherry (*Prunus*) - several species have shiny and/or peeling bark
Dogwood (*Cornus*) - species may have red, yellow or gray bark
Hawthorn (*Crataegus*) - gray bark
Kerria (*Kerria japonica*) - green bark
Magnolia (*Magnolia*) - gray bark
Paper birch (*Betula papyrifera*) - white bark
Rose (*Rosa*) - many species have red bark
Serviceberry (*Amelanchier*) - gray bark
Willow (*Salix*) - many species have yellow bark
Winged burning bush (*Euonymus alatus*) - ridged bark

FOR MOIST SOILS

Ash (*Fraxinus*) - some species
Birch (*Betula*) - some species
Canadian hemlock (*Tsuga canadensis*)
Dogwood (*Cornus*) - some species
Larch (*Larix*)
Spruce (*Picea*) - several species
White cedar (*Thuja occidentalis*)
Willow (*Salix*) - many species
Viburnum (*Viburnum*) - many species

SHADE TOLERANT

Beech (*Fagus*) - many species
Bittersweet (*Celastrus*)
White Cedar (*Thuja*) - many species
Coralberry, Snowberry
(*Symphoricarpos*) - many species
Currant (*Ribes*) - many species
Dogwood (*Cornus*) - several species
Dutchman's pipe (*Aristolochia siphon*) -
a vine
English ivy (*Hedera helix*)
Euonymus (*Euonymus fortunei*) - many
selections
False spiraea (*Sorbaria sorbifolia*)
Hemlock (*Tsuga*) - some species
Hydrangea (*Hydrangea arborescens*) -
some selections
Oregon holly grape (*Mahonia
aquifolium*)
Rhododendron (*Rhododendron*) - many
selections
Trumpet vine (*Campsis radicans*)
Viburnum (*Viburnum*) - many species
Witch hazel (*Hamamelis*) - several
species
Yew (*Taxus*) - many species

SOMEWHAT SALT TOLERANT

Cotoneaster (*Cotoneaster*)
Holly (*Ilex*)
Russian olive (*Elaeagnus*)
Sea buckthorn (*Hippophae*)
Spruce (*Picea*)
Sumac (*Rhus*)
Viburnum (*Viburnum*)
White cedar (*Thuja occidentalis*)

FOOD AND SHELTER FOR WILDLIFE

American Bittersweet (*Celastrus*)
Apple (*Malus*)
Boston ivy (*Parthenocissus tricuspidata*)
Buffaloberry (*Shepherdia canadensis*)
Chokeberry (*Aronia melanocarpa*)
Chokecherry (*Prunus virginiana*)
Coralberry, Snowberry
(*Symphoricarpos*)
Currant (*Ribes*)
Dogwood (*Cornus*)
Elderberry (*Sambucus*)
Euonymus (*Euonymus*)
Hackberry (*Celtis occidentalis*)
Hawthorn (*Crataegus*)
Holly (*Ilex*)
Juniper (*Juniperus*)
Mountain ash (*Sorbus*)
Oregon holly grape (*Mahonia
aquifolium*)
Privet (*Ligustrum*)
Serviceberry (*Amelanchier*)
Sumac (*Rhus*)
Viburnum (*Viburnum*)
Yew (*Taxus*)