Gardening Essentials Cheatsheet

A comprehensive guide to gardening, covering planning, planting, maintenance, and troubleshooting to help you cultivate a thriving garden.

Planning Your Garden

Assessing Your Space

Sunlight:	Observe how much sun your garden receives (full sun, partial shade, full shade). • **Full sun:** 6+ hours of direct sunlight • **Partial shade:** 3-6 hours of direct sunlight • **Full shade:** Less than 3 hours of direct sunlight
Soil Type:	Determine your soil type (sandy, silty, clay, loamy). Loamy soil is ideal. You can improve soil with amendments.
Drainage:	Check how well your soil drains. Poor drainage can lead to root rot. Amend with compost or raised beds.
Space:	Consider the available space and choose plants that will fit comfortably at their mature size.
Hardiness Zone:	Identify your USDA hardiness zone to select plants that can survive your local climate.
Water Source:	Ensure you have a convenient water source nearby for irrigation.

Choosing the Right Plants

Climate Appropriateness:	Select plants suited to your local climate and hardiness zone.
Sunlight Requirements:	Match plants to the amount of sunlight available in your garden.
Soil Preferences:	Consider the soil pH and nutrient needs of your plants.
Mature Size:	Choose plants that will fit your space at their mature size to avoid overcrowding.
Water Needs:	Group plants with similar watering needs together to simplify irrigation.
Pollinators:	Select plants that attract pollinators to improve fruit and vegetable production.

Planting Techniques

Seed Starting

Timing:	Start seeds indoors 6-8 weeks before the last expected frost.
Materials:	Use seed starting trays, pots, or peat pellets with a sterile seed starting mix.
Planting Depth:	Follow seed packet instructions for planting depth. Generally, plant seeds twice as deep as their diameter.
Watering:	Keep the soil consistently moist but not waterlogged. Use a spray bottle to mist the soil.
Light:	Provide adequate light using grow lights or a sunny window. Rotate seedlings to prevent legginess.
Hardening Off:	Gradually acclimate seedlings to outdoor conditions before transplanting. Expose them to increasing amounts of sunlight and wind over 1-2 weeks.

Transplanting

Timing:	Transplant seedlings after the last expected frost when the soil has warmed up.
Preparation:	Prepare the planting hole by amending the soil with compost or other organic matter.
Planting Depth:	Plant seedlings at the same depth they were growing in their containers.
Spacing:	Follow spacing recommendations for each plant to allow for adequate growth.
Watering:	Water thoroughly after transplanting to help settle the soil around the roots.
Mulching:	Apply a layer of mulch around plants to retain moisture, suppress weeds, and regulate soil temperature.

Garden Maintenance

Watering

Frequency:	Water deeply but infrequently, allowing the soil to dry slightly between waterings. Check soil moisture regularly.
Timing:	Water in the morning to allow foliage to dry before nightfall, reducing the risk of fungal diseases.
Method:	Use a soaker hose or drip irrigation system to deliver water directly to the roots, minimizing water loss through evaporation.
Signs of Overwatering:	Yellowing leaves, wilting despite moist soil, root rot.
Signs of Underwatering:	Wilting, dry soil, stunted growth.

Fertilizing

Types of Fertilizer:	Choose a fertilizer appropriate for your plants. Options include granular, liquid, slow-release, and organic fertilizers.
Application:	Follow fertilizer instructions carefully. Over-fertilizing can damage plants.
Timing:	Fertilize during the growing season, typically in spring and summer. Avoid fertilizing during dormancy.
Organic Options:	Compost, aged manure, and bone meal are excellent organic fertilizer options.
Nutrient Deficiencies:	Look for signs of nutrient deficiencies, such as yellowing leaves (nitrogen), stunted growth (phosphorus), or leaf curling (potassium).

Weeding

Techniques:	Hand-pulling, hoeing, and mulching are effective weeding techniques.
Timing:	Weed regularly to prevent weeds from competing with your plants for nutrients and water.
Mulching:	Apply a thick layer of mulch to suppress weed growth and retain soil moisture.
Herbicides:	Use herbicides as a last resort, following label instructions carefully. Choose selective herbicides to avoid damaging desirable plants.

Pest and Disease Control

Identifying Pests

Aphids:	Small, soft-bodied insects that suck plant sap. Often found on new growth.
Spider Mites:	Tiny pests that create webs on plants and cause stippling on leaves.
Caterpillars:	Larvae of butterflies and moths that chew on leaves and stems.
Slugs and Snails:	Mollusks that feed on plant leaves and flowers, leaving slime trails.
Whiteflies:	Small, white, winged insects that suck plant sap.

Controlling Pests

Handpicking:	Remove pests by hand and dispose of them.
Insecticidal Soap:	Spray plants with insecticidal soap to kill soft-bodied pests.
Neem Oil:	Apply neem oil to control a wide range of pests and diseases.
Beneficial Insects:	Introduce beneficial insects like ladybugs and lacewings to control pest populations.
Traps:	Use traps to capture slugs, snails, and other pests.

Managing Diseases

Fungal Diseases:	Powdery mildew, black spot, and rust are common fungal diseases. Improve air circulation and use fungicides as needed.
Bacterial Diseases:	Bacterial leaf spot and blight can cause significant damage. Remove infected plant parts and use copper-based fungicides.
Viral Diseases:	Viral diseases are often spread by insects. Control insect pests to prevent the spread of viruses. Remove and destroy infected plants.
Prevention:	Choose disease-resistant varieties, provide adequate spacing, and avoid overhead watering to prevent diseases.