RAISED BEDS

Design/planning questions to consider:

- What size do I want the bed to be?
- What material should I use?
- Should I build the bed myself or use prefabricated pieces?
- How will I lay out the bed(s) in my site?

Size

Considerations: soil depth requirements for intended crops, safety of ground soil, who will be using the bed, budget, tools & labor

- ***Height*** (12" – 24" is standard, but some beds are higher or lower based on preference)
    - Lower (under 12")
        - If you have good (safe, not compacted) soil beneath the bed, the roots can grow down into it
        - Lower beds require fewer materials and thus are cheaper to construct
    - Higher (more than 24")
        - If the soil beneath the bed is unsafe/compacted, or if the bed will sit atop a hard surface (pavement, rooftop), you will need to make the bed tall enough to contain all roots
        - ADA accessible beds are generally 24" high
        - Consider cross supports for beds higher than 18" (the weight of such a volume of soil will put pressure on the boards, causing them to bow outward)
- ***Length & Width***
    - No wider than 4' (it is difficult for a gardener to reach more than 2' to the center of a bed)
        - Kids' beds recommendation: 3' wide
        - Wheel chair accessibility: 3' wide for adults, 2' wide for children
    - Standard dimensions: 4' x 8' (boards come in these sizes, so you won't have to cut them)
        - However, your raised bed can be whatever dimensions you would like (and you can fit it to a specific space if needed)

Materials

Considerations: budget, tools & labor, interest in organic certification, health implications

- *Cedar*
    - Naturally rot resistant (bed should last at least 10-15 years)
    - Expensive
    - Check to be sure your hardwood is sustainably harvested
    - Other rot resistant woods to consider: redwood, black locust, cypress
- *Untreated lumber*

    - Economical, but does not last as long as treated wood or hardwood (untreated lumber in contact with moist ground will likely begin to rot in several years)
- *Treated lumber*
    - *Alkaline Copper Quat (ACQ) Ground Contact* is FDA approved for food contact and growing. This treatment method contains copper (protects against insects) and fungicide (protects against soil fungus).
        - Note: Pressure-treated lumber is now safer than it used to be (until 2003 it was treated with a compound that leached arsenic into soil), but is generally not recommended for gardens used by small children (a sign that you may want to be careful about using it at all)
    - No pressure-treated lumber is allowed in soils used to grow certified organic food
- *Scrap lumber*
    - You can construct a bed out of scrap wood (e.g. pallets), but be aware that you will have to rebuild your bed every few years because moisture and soil contact will rot the wood
- *Concrete blocks*
    - Economical
    - Rot resistant- longest lasting option
    - Easy to assemble, requires minimal tools and experience
- *Repurposed containers*
    - Children's wading pool (drill holes in the bottom for drainage)
    - Look for containers that are at least 12" deep
- *Prefabricated raised bed kits*
    - Large hardware stores (Home Depot, Lowe's) sell ready-made beds that require minimal assembly on-site
    - Many of these options are made of composite wood (recycled plastic and wood), which is water-resistant and long-lasting, but more expensive
- *Fastenings & other materials*
    - For wood beds you'll need screws (3.5" for most designs) and/or corner brackets
    - For concrete block beds you'll need cement adhesive (such as "Liquid Nails" Heavy Duty Construction Adhesive)
    - If your garden has burrowing pests (e.g. moles), use a layer of hardware cloth (1/2" or 1/4" galvanized mesh). Lay the hardware cloth across the bottom of the completed bed and up at least 3" along its interior; staple in place.
    - You can add accessories to your bed:
        - Netting to keep out critters
        - Drip tape (self-watering system)
        - Benches along the edge to sit on while gardening
        - You can even build a raised bed on legs (see link below); attach wheels to the legs and your raised bed can be moved!

Construction Instructions

Find a basic design for 4' x 8' wood beds here:

http://thefoodproject.org/sites/default/files/DIY-bag-manual-2012_2.pdf

http://www.cacscw.org/downloads/Accessible%20Raised%20Beds.pdf

Find a design for wood beds on legs (adaptable for moveable beds) here:

http://www.instructables.com/id/Raised-Garden-Bed-on-legs/

Find a basic design for a concrete block bed here:

http://orange.ifas.ufl.edu/res_hort/pdffiles/Factsheets/011%20How%20to%20Build%20a%20Raised%20Bed%20Garden%20(Concrete%20Block).pdf

(*Note: You can use cement adhesive instead of rebar to hold the blocks together)

http://www.vegetablegardener.com/item/8578/concrete-raised-garden-beds-easy-to-build-and-fairly-cheap

Raised Bed Layout

- Place your bed where it will get at least 6 hours of sunlight per day
- If possible, the long side of the bed should face south (provides equal light exposure to all plants)
- If you place your bed on top of soft ground that you plan for your crop roots to permeate, break up the soil a bit with a shovel or pitchfork before placing the bed.
- If you place a shallow bed on top of a lawn, dig up sections of sod with a square nosed shovel and turn the sod piece over in place (so the roots are facing up) to help to prevent the grass from growing up through a shallow bed.