

**Activity: Planting**   **Goal: Psychological/Emotional**   **Populations: Specialized Populations**

## TH Activity Plan – Forcing Paperwhites & Other Bulbs

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### Materials

Plastic or terracotta pots;  
assorted sizes

Paperwhite bulbs, amaryllis  
bulbs

Pre-cooled (tulip, hyacinth,  
daffodil) bulbs or access to  
cooling area (large refrigerator  
or outside space)

Potting soil, moss, small  
pebbles

Wooden stakes, string

Gloves, wipes

**ACTIVITY DESCRIPTION:** Participants will pot bulbs to force indoor blooms during winter months.

### THERAPEUTIC GOALS:

**Cognitive/Intellectual:** Learn unique growth & dormancy cycle of bulbs; practice spacing & aligning objects; follow directions & sequencing

**Physical:** Exercise fine motor skills; improve hand-eye coordination; improve spatial awareness

**Psychological/Emotional:** Explore rest/dormancy as necessity for growth/wellness; enhance self-esteem

**Sensory:** Experience tactile texture variations to boost learning & focus; use olfactory engagement to enhance mood & trigger memories

**Social:** Make social connections; practice communication skills; build empathy through active reminiscence

### STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather materials. Ensure bulbs have been pre-cooled if appropriate. Have a sample forced bulb in work area.
2. Facilitator begins session by displaying a forced bulb & encouraging participants to look at & smell this wintertime miracle.
3. Discuss method of forcing bulbs & which bulbs can be used for this.
4. Using a pot (any size or material), put 1-2" soil in bottom, then place bulbs tightly packed or single, with pointy end up (some may have roots showing), followed by more soil and possibly top dressing of moss or small pebbles.
5. One option is to plant bulbs in containers to force them using this method, then placing them outside covering with inches of leaves for the dormant state. They will emerge... facilitator needs to gauge the timelines (Wolk, 2012).
6. Discussions of plant care, need for dormancy to promote optimal growth, and metaphors for human growth, among other topics relevant to each population can explore and extend the activity & therapeutic benefits.

**APPLICATIONS FOR POPULATIONS:** This therapeutic horticulture activity has been particularly effective with young people in a school setting. This population deals with self-esteem and self-awareness issues, concerns

about doing things correctly, and completing tasks. Forcing blooms can foster feelings of success.

Forcing bulbs is appropriate for populations who can safely work with bulbs where ingesting them will not occur, and knowing that bulbs are toxic. This TH activity provides a platform to explore topics like growth, care and nurturing, self-esteem and pride from completed tasks in addition to the cognitive experience of expanding plant knowledge. Forcing bulbs into bloom can be a counterpoint to natural cycles of blooming, these as catalysts for discussions on plant/human requirements met in different ways, for example, the need for dormancy/rest, inputs of nutrients, and plant/parental care.

Sensory aspects of this hands-on activity, particularly the fragrance of the blooms, enhances mood dramatically for participants, staff and visitors! This also contributes to feelings of success, pride and social aspects of sharing experiences with others.

**SAFETY CONSIDERATIONS: Facilitator is responsible for knowing poisonous and toxic plants and plant parts.** Bulbs are toxic if ingested. Most bulbs have been pre-treated with fungicide and should not be licked and may cause skin sensitivity for some; use of gloves can be a safety adaptation. This activity may not be appropriate for some populations. Not suitable for populations that may be tempted to put items in mouths (bulbs, pebbles, soil).

**NOTES OR OTHER CONSIDERATIONS:** Facilitator must be knowledgeable about bulb requirements for forcing blooms. Certain bulbs have cooling requirements and will not bloom if this dormancy stage does not occur (tulip, hyacinth, daffodil). Do not put bulbs in fridges with apples (or lunches); this will cause emission of ethylene gas which will damage bulb growth. Bulbs can be purchased where the cooling period has been done by the vendor.

Forcing bulbs, specifically paperwhites, can also be done without soil. Follow instructions above but use non-draining pots, vases or containers and replace soil base with pebbles or glass beads. Once planted, fill container with water up to base of bulb. If a clear container is used, root growth will be visible!

Using a reputable bulb vendor is recommended because of their specialized horticulture experience. [Holland Bulb Farms recommends bulbs for indoor forcing](#): Gipsy Princess Hyacinth, Apricot Single Early Tulip, Fringed Elegance Tulip, Grape Ice Muscari, Inbal Paperwhites, Jetfire Daffodils, Monarch Orange Crocus, and Early Royal Dwarf Iris Mixture.

#### **REFERENCES/ RESOURCES:**

Curley, J. (2023). Forcing spring flowering bulbs. *Smithsonian Garden*.

<https://gardens.si.edu/learn/blog/forcing-spring-flowering-bulbs/>

Trinklein, D. (2024). Forcing bulbs for indoor bloom. *University of Missouri Extension*.

<https://extension.missouri.edu/publications/g6550>

Wolk, A. (2012). *Bulb forcing for beginnings and the seriously smitten*. AAB Book Publishing Company LLC.

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TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2023.