

Build Your Own Basin (BYOB)

A Recharge the Rain Project
Plant the Water



**ARIZONA
PROJECT WET**



Basics

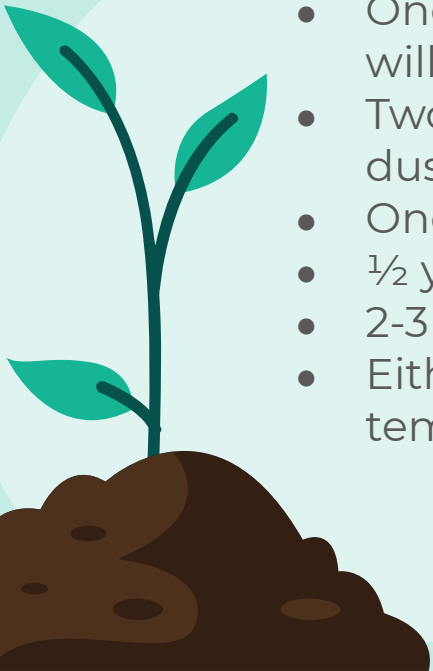
- ❖ Teachers engage students in the engineering design of rain basins using [AquaSTEM curriculum](#). ([Microsoft Version](#))
- ❖ Students design rain basins to be built at their learning sites.*
- ❖ Teacher AND Recharge the Rain approved designs will receive a BYOB kit.
- ❖ Families build and maintain the basins.
- ❖ Students monitor their learning sites (with and without basins) and report their observations.

*Learning sites are wherever the student is currently doing the bulk of their schoolwork during COVID-19 restrictions.



BYOB Kit

The BYOB kit will be made available by WMG at no cost to families. It will contain*

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- One 5-gal tree (mesquite, palo verde, ironwood or desert willow)
 - Two shrubs 1-5 gals (jojoba, Mexican bird of paradise, fairy duster, milkweed)
 - One 1-gal desert grass
 - $\frac{1}{2}$ yd³ of mulch
 - 2-3 wildflower seed balls
 - Either an IR thermometer or rain gauge for monitoring surface temperatures or rain

* Species may vary depending on availability



Teacher Requirements

- Facilitate students' engineering design of rain basins using AquaSTEM lessons
- Instruct students to turn in their designs using the BYOB Template Design Report
- Recommend student families to receive a BYOB kit
 - Evaluate feasibility of installation based upon this criteria
 - Have students turn in their designs and Family Agreements



Requirements – All Students

Design

- Design a rain basin for your location.
- Perform a Water Budget using linked worksheet or Excel worksheet.
- Submit BYOB Design to teacher.



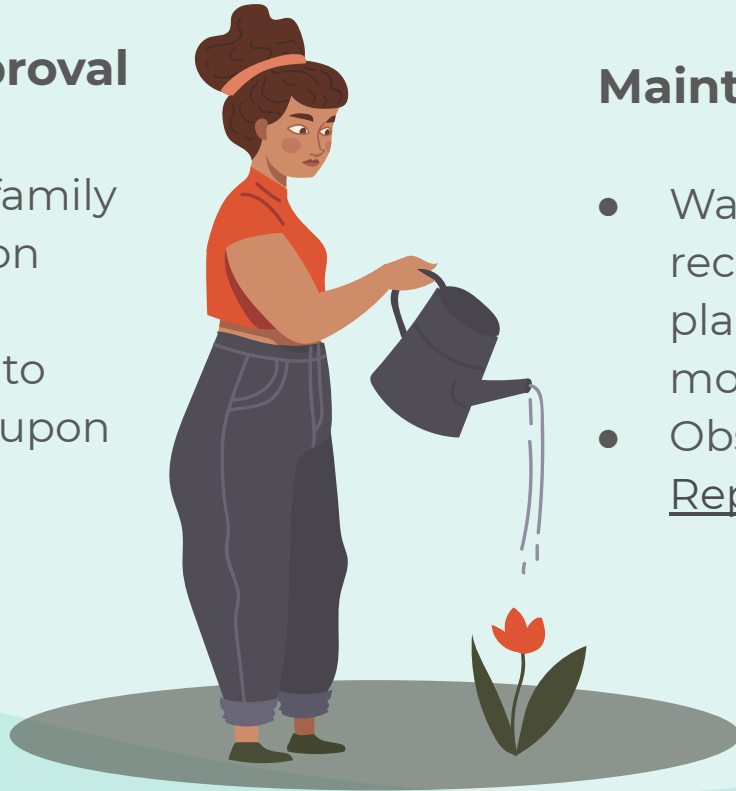
Monitoring

- Observe and Report on your site
- Monitor Heat at your site
- Monitor and report rainfall

Student Requirements – Building Basins

BYOB Design Approval

- Share design with family
- Obtain signatures on Family Agreement
- Submit paperwork to Recharge the Rain upon teacher approval



Maintaining Garden

- Water plants according to recommendations until plants are established (~18 months)
- Observe, Monitor and Report on your garden

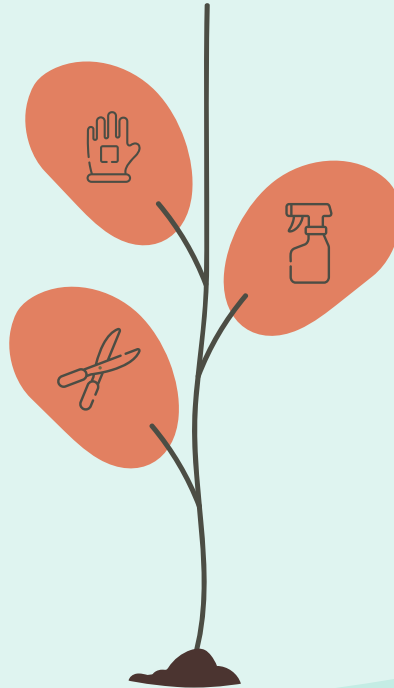




Family Requirements

Basin Installation & Maintenance

- Dig and plant basin within 2 weeks of plant delivery
- Water plants during establishment period
 - 2-3 times/week
 - ~ 18 months
- Videos
 - [Building Basin Overview](#)
 - [How to Build your Basin](#)



Basin Monitoring

- Assist student in monitoring basin and reporting back
 - Photos (pre and post installation)
 - Plant growth, wildlife observations, rain basin performance, rainfall, heat



Workflow

Teachers facilitate rain basin design

Students turn in rain basin designs

BYOB Kits approved, delivered, installed

Student monitoring of basins & non-basin sites



Questions?

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