



Geodesic Greenhouse Dome



University of Idaho
Extension

Tool for Community Resilience & Stem Education

Introduction

- High-altitude presents challenges to food production & gardening
- Need for local self-reliance & growing season extension in the Wood River Valley
- UI Extension's education initiative to teach the dome's construction in addition to fostering community partnerships & enhancing education

Collaboration & Methodology

- Cross-state collaboration with University of Wyoming Extension
- \$3,000 UI Extension Innovative Projects grant
- Team of Blaine County Extension staff & Hailey Elementary School volunteers constructed this 16 ft diameter trail dome for the elementary school
- Hands-on training for the Extension Educator & community co-building

Pilot Build & Results

- Gas-vented, snow-shedding design
- Outdoor classroom space for students
- Integrate greenhouse curriculum (i.e. calculating volume for planter boxes & studying plant physiology)
- High visibility "showpiece"
- Generates ongoing use & interest with the community



Project Impact



Conclusion

- Viable solution to extend growing season for high-altitude areas
- Strengthens education
- Model for rural & cold climate areas



Sustainable Design
low-cost, replicable model



Education
K-5 STEM learning



Community
workshops & partnerships



Agricultural Literacy
youth engagement

