

1. Plant Growth

1. **Seed Germination:** Test seed sprouting times.
2. **Soil Types:** Compare growth in different soils.
3. **Light Effects:** See how light affects plants.
4. **Watering Methods:** Try different watering techniques.
5. **Fertilizers:** Test various fertilizers.
6. **Temperature Effects:** Study how temperature changes plant growth.
7. **Hydroponics:** Grow plants without soil.
8. **Companion Plants:** See how some plants help others.
9. **Container vs. Ground:** Compare growth in pots vs. the ground.
10. **Seed Soaking:** Check if soaking seeds speeds up germination.

2. Soil and Compost

11. **Composting:** Make and use compost.
12. **Soil pH:** Test and adjust soil acidity.
13. **Earthworms:** Study how worms help soil.
14. **Soil Erosion:** Learn ways to prevent soil loss.
15. **Soil Moisture:** Measure water retention in different soils.
16. **Homemade Fertilizers:** Create your own fertilizers.
17. **Mulching:** Test how mulching affects plants.
18. **Soil Aeration:** See how aerating soil helps plants.
19. **Organic Matter:** Add compost and observe effects.
20. **Soil Structure:** Study different soil types.

3. Pest Control

21. **Natural Pesticides:** Make natural pest repellents.
22. **Beneficial Insects:** Use helpful insects to control pests.
23. **Trap Crops:** Grow plants that attract pests away.
24. **Homemade Sprays:** Create sprays to repel insects.
25. **Physical Barriers:** Protect plants with barriers.
26. **Neem Oil:** Test neem oil for pest control.
27. **Companion Planting:** Grow plants that deter pests.
28. **Bird Feeders:** Attract birds to eat pests.
29. **Planting Timings:** Study how planting times affect pests.
30. **Disease Resistance:** Test plants for disease resistance.

4. Sustainable Practices

31. **Water Conservation:** Use methods to save water.
32. **Rainwater Collection:** Collect rainwater for plants.

33. **Renewable Energy:** Use solar or wind power in gardening.
34. **Vertical Farming:** Grow plants vertically.
35. **Greenhouse Effects:** Study how greenhouses help plants.
36. **Zero Waste Gardening:** Practice gardening with no waste.
37. **Pollinator Gardens:** Attract bees and butterflies.
38. **Crop Rotation:** Rotate crops to keep soil healthy.
39. **Urban Farming:** Start a garden in a city.
40. **Eco-Friendly Packaging:** Use biodegradable packaging.

5. Animal Agriculture

41. **Chicken Coops:** Build different chicken coops.
42. **Manure Composting:** Compost animal waste.
43. **Beekeeping:** Manage a small beekeeping project.
44. **Fish Farming:** Raise fish in tanks.
45. **Aquaponics:** Combine fish and plant farming.
46. **Animal Feed:** Compare different feeds for animals.
47. **Milk Production:** Study how milk is produced.
48. **Egg Incubation:** Hatch eggs and raise chicks.
49. **Animal Behavior:** Observe animal habits.
50. **Worm Farming:** Raise worms for composting or bait.

6. Crop Production

51. **Corn Growth:** Grow and compare corn.
52. **Tomato Varieties:** Test different tomato types.
53. **Herb Gardens:** Grow and use herbs.
54. **Grain Milling:** Make flour from grains.
55. **Root Vegetables:** Grow and harvest root vegetables.
56. **Beans:** Study different bean varieties.
57. **Vine Crops:** Grow crops like cucumbers.
58. **Berry Bushes:** Grow and compare berry bushes.
59. **Green Beans:** Experiment with bean plant spacing.
60. **Squash:** Grow different types of squash.

7. Technology in Agriculture

61. **Soil Sensors:** Monitor soil conditions with sensors.
62. **Drones:** Use drones to check crops.
63. **Automated Irrigation:** Set up automatic watering.
64. **Greenhouse Tech:** Control greenhouse environments.
65. **Crop Apps:** Use apps to manage crops.
66. **Data Logging:** Record plant growth data.
67. **Precision Farming:** Use tools for precise farming.

- 68. **Weather Stations:** Track local weather conditions.
- 69. **Plant Cameras:** Use cameras to monitor plants.
- 70. **Agro-Tech Gadgets:** Explore new farming gadgets.

8. Environmental Impact

- 71. **Carbon Footprint:** Measure farming's carbon footprint.
- 72. **Pollution Effects:** Study pollution's effect on plants.
- 73. **Waste Management:** Manage farming waste.
- 74. **Soil Conservation:** Explore soil conservation methods.
- 75. **Biodiversity:** Study plant and animal diversity.
- 76. **Water Quality:** Check how farming affects water quality.
- 77. **Green Practices:** Adopt eco-friendly farming practices.
- 78. **Climate Change:** Study climate change impacts on crops.
- 79. **Land Use:** Compare different land use methods.
- 80. **Ecosystem Services:** Study agriculture's effect on ecosystems.

9. Agriculture Economics

- 81. **Cost Analysis:** Compare costs of farming methods.
- 82. **Market Research:** Study demand for farm products.
- 83. **Profitability:** Evaluate farming project profitability.
- 84. **Crop Rotation:** Analyze economic benefits of crop rotation.
- 85. **Organic vs. Conventional:** Compare organic and conventional farming costs.
- 86. **Community Gardens:** Study community garden economics.
- 87. **Value-Added Products:** Create and sell products from farm produce.
- 88. **Farm Software:** Test farm management software.
- 89. **Supply Chain:** Explore farm product supply chains.
- 90. **Sustainable Investment:** Evaluate investment in sustainable practices.

10. Miscellaneous

- 91. **Flower Gardens:** Grow and care for flowers.
- 92. **Plant Science:** Conduct simple plant biology experiments.
- 93. **Seed Saving:** Save and store seeds.
- 94. **Indoor Gardens:** Grow plants indoors.
- 95. **Vertical Gardens:** Use vertical space for plants.
- 96. **Seasonal Crops:** Grow crops for each season.
- 97. **DIY Greenhouses:** Build a small greenhouse.
- 98. **Pollinator Habitats:** Create habitats for pollinators.
- 99. **Urban Gardens:** Start a garden in an urban area.
- 100. **Local Food Systems:** Study benefits of local food systems.

11. Aquaculture

101. **Fish Tanks:** Maintain ecosystems in fish tanks.
102. **Aquatic Plants:** Grow plants that live in water.
103. **Pond Management:** Manage a small pond.
104. **Water Quality:** Test and maintain pond water quality.
105. **Algae Farming:** Grow algae and explore its uses.
106. **Fish Species:** Study different fish species.
107. **Shrimp Farming:** Raise shrimp in a controlled environment.
108. **Aquaponics:** Combine fish and plant farming.
109. **Water Filtration:** Develop water filtration systems.
110. **Fish Nutrition:** Compare fish feeds.

12. Agroforestry

111. **Tree Planting:** Plant and study different trees.
112. **Forest Gardens:** Create a forest garden.
113. **Shade Crops:** Grow crops in tree shade.
114. **Nutrient Cycling:** Study how trees recycle nutrients.
115. **Agroforestry Benefits:** Learn benefits of trees in farming.
116. **Tree-Crop Interactions:** Study how trees and crops interact.
117. **Ecosystem Restoration:** Use agroforestry to restore ecosystems.
118. **Wildlife Habitat:** Create habitats for wildlife.
119. **Soil Improvement:** See how trees improve soil.
120. **Agroforestry Design:** Plan and implement an agroforestry project.

13. Urban Agriculture

121. **Rooftop Gardens:** Start a rooftop garden.
122. **Community Composting:** Set up a compost system for the community.
123. **Small Space Gardening:** Grow plants in small urban spaces.
124. **Urban Beekeeping:** Keep bees in an urban setting.
125. **Hydroponics:** Use hydroponics for urban gardening.
126. **Container Gardening:** Grow plants in containers.
127. **Vertical Farming:** Implement vertical farming in cities.
128. **Green Walls:** Install living walls with plants.
129. **Urban Soil Health:** Improve soil quality in cities.
130. **Urban Food Security:** Study how urban agriculture affects food security.

14. Educational Projects

131. **Agricultural History:** Research farming history.
132. **Plant Identification:** Create a plant identification guide.
133. **Farm to Table:** Track food from farm to table.
134. **Agricultural Innovations:** Study new farming technologies.
135. **Crop Diversity:** Document different crops.

136. **Sustainable Farming:** Learn about sustainable practices.
137. **Farm Machinery:** Study different farm machines.
138. **Plant Anatomy:** Create models of plant parts.
139. **Soil Types:** Learn about various soil types.
140. **Global Farming:** Compare farming practices worldwide.

15. Food Production

141. **Jam Making:** Make homemade jam.
142. **Bread Making:** Bake bread from scratch.
143. **Cheese Making:** Try making basic cheese.
144. **Herb Infusions:** Make herb-infused oils and vinegars.
145. **Pickling Vegetables:** Pickle vegetables at home.
146. **Fermentation:** Ferment foods like sauerkraut.
147. **Germinated Seeds:** Grow and use sprouted seeds.
148. **Vegetable Juices:** Make vegetable juices.
149. **Edible Flowers:** Grow and use edible flowers.
150. **Fruit Preservation:** Preserve fruits for later use.

16. Community Projects

151. **Community Gardens:** Start a garden for the community.
152. **School Farm:** Develop a school farm project.
153. **Farmers' Market:** Organize a local market.
154. **Agricultural Workshops:** Host farming workshops.
155. **Food Drives:** Use garden produce for food drives.
156. **Plant Exchange:** Set up a plant exchange program.
157. **Educational Tours:** Offer farm tours.
158. **Youth Agriculture Clubs:** Start a club for young farmers.
159. **Garden Events:** Plan events showcasing garden produce.
160. **Harvest Festivals:** Organize a festival for the harvest.

17. Waste Reduction

161. **Organic Waste Composting:** Compost kitchen and garden waste.
162. **Recycled Planters:** Make planters from recycled materials.
163. **Upcycled Tools:** Repurpose old tools for gardening.
164. **Waste Reduction:** Reduce waste in farming.
165. **Zero Waste Gardening:** Practice no-waste gardening.
166. **Plastic Alternatives:** Use alternatives to plastic in gardening.
167. **Food Scrap Gardens:** Grow plants from food scraps.
168. **Recycled Soil Amendments:** Use recycled materials to improve soil.
169. **Waste Education:** Teach waste management practices.
170. **Composting Education:** Educate others on composting.

18. Science Experiments

171. **Plant Respiration:** Measure how plants breathe.
172. **Photosynthesis Rates:** Study light effects on photosynthesis.
173. **Soil Microbes:** Investigate soil microbes' role.
174. **Plant Transpiration:** Measure water loss in plants.
175. **Nutrient Absorption:** Test how plants take up nutrients.
176. **Growth Hormones:** Study plant hormones' effects.
177. **Seed Dispersal:** Observe how seeds spread.
178. **Pollination:** Study different pollination methods.
179. **Water Stress:** Test how plants cope with water shortages.
180. **Soil Temperature:** Explore temperature effects on soil.

19. Innovation and Inventions

181. **Automated Watering:** Design automatic watering systems.
182. **Greenhouse Control:** Create systems to control greenhouses.
183. **Crop Sensors:** Use sensors to monitor crops.
184. **Eco-Friendly Pests:** Innovate eco-friendly pest control.
185. **Sustainable Packaging:** Design eco-friendly packaging.
186. **Farm Robotics:** Use robots for farming tasks.
187. **Energy-Efficient Greenhouses:** Develop energy-saving greenhouses.
188. **Water Recycling:** Create water recycling systems.
189. **Smart Fertilizers:** Develop slow-release fertilizers.
190. **Plant Apps:** Design apps for plant care.

20. Seasonal Projects

191. **Spring Planting:** Plan and plant for spring.
192. **Summer Harvest:** Manage summer harvests.
193. **Fall Preparation:** Prepare for winter and next season.
194. **Winter Gardening:** Grow plants indoors or use winter techniques.
195. **Seasonal Pests:** Study pests that change with seasons.
196. **Holiday Plants:** Grow plants for holiday decorations.
197. **Winter Composting:** Compost waste in winter.
198. **Seasonal Crops:** Grow crops suited to each season.
199. **Temperature Effects:** Study how temperature changes affect plants.
200. **Seasonal Preservation:** Preserve seasonal produce.