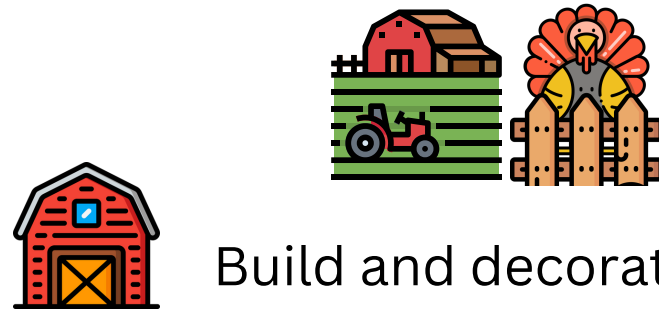
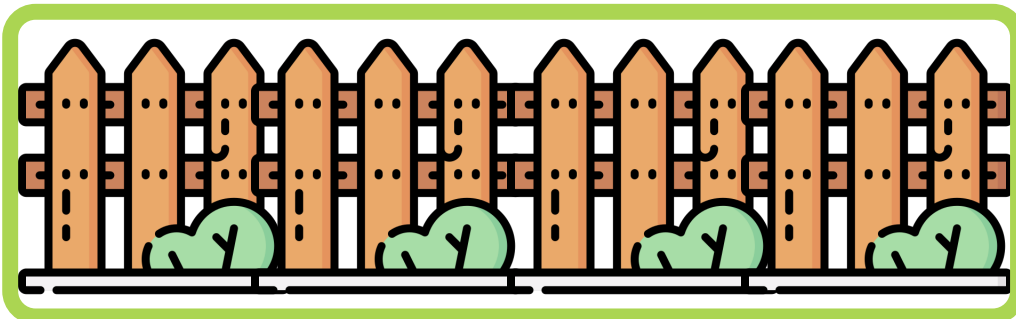
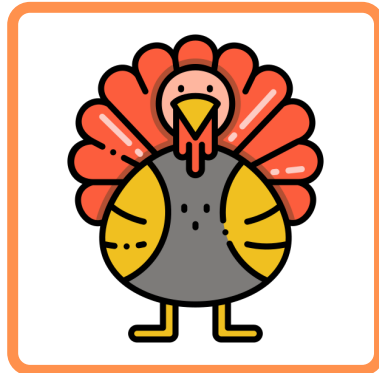
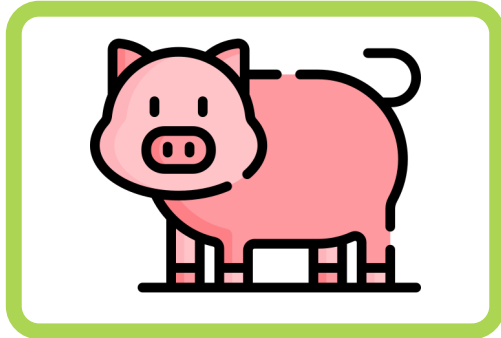
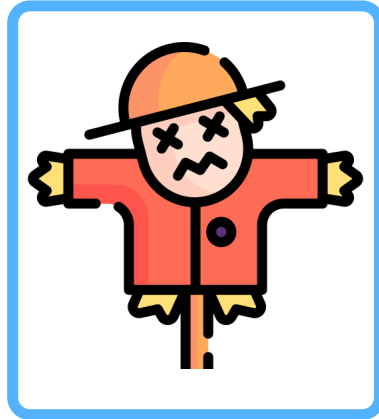
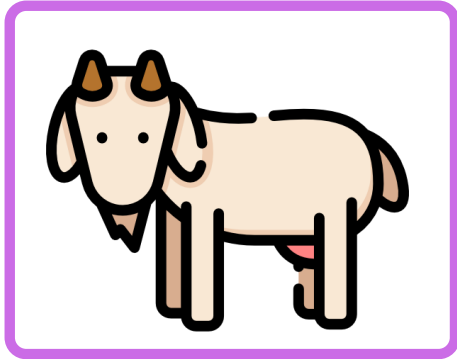
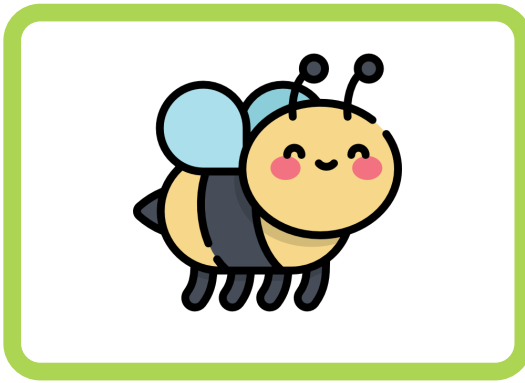
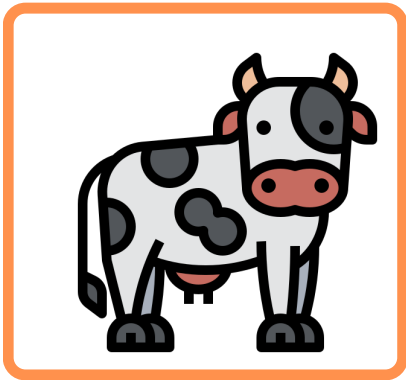
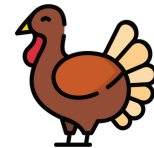


Sustainable Farm and Turkey Refuge



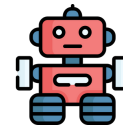
Build and decorate a farm



Cut out characters



Pumpkin packing optimization

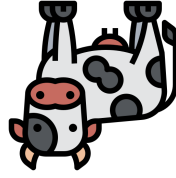


Assistive device for a farmer

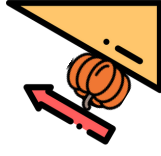


Farm animal feeding solutions

1. Feeding Frenzy at the Farm. The animals at Duxter's farm like human interaction. Design a catapult so visitors can feed the animals from a distance that is safe and non-threatening for both humans and animals. Design first.



2. A Slippery Slope. Optimize an inclined plane to help get pumpkins from the second floor storage room to the cart. Test several inclined planes with different slopes and textures to determine the best design to maximize speed and minimize fallout (when pumpkins fall off the side and get smashed). Draft, prototype, test, and optimize.



3. Pumpkin Packing Plant Upgrade. Help farmer Duxter make packing for the local market more efficient. Make some pumpkins and a cart. Design a 2-story barn with a pulley and lever system that will pick up the pumpkins in the barn and move them into the cart for transport. Draft before you build!



4. Help a farmer in need. Farmer Duxter slipped in the pig pen and sustained a leg injury. Design and build an assistive device that can help him navigate the farm. Include at least two machines (like a pulley, wheel and axle, wedge, inclined plane etc.) in your design.

