**Josh**

Robotic competitions

Balloon bridges - Engineering design process

AI in scratch

Photogates with balloon cars

WiiMote bowling

**Dustin**

Data loggers

Kinect in Scratch

Breaking point testing

Overall Design with Lego NXT

Using Konza Prairie data for data points

Barbie bungee jump with camera

**Joe**

WiiMotes with sensor bar – Simple Harmonic Motion (SHM), circular motion

Geocache revised

Vernier lab – Speed of sound, calculating amplitude of sound waves and beats

Scratch – Exploration (let students play around), invention, application

**Cheney**

Introduction to Scratch

Advanced Scratch application

Graphing with Kinect

Using Arduino in Scratch

Kinematics

Bejeweled game for combining elements

How to draw trees presentation

Cyber-Physical Systems

GK12 proximeter and heartbeat monitors

Kanza Praire data

Geocaching balloon bridges

**James**

Scratch tutorial

Kinect applications

NXT robots – programming in Enchanting, drawing geometric shapes

Geocaching

Pnut rockets

Birdhouse cameras

Speakers

**Zac**

Lasers prisms with sensors – Security maze design

Wind, soil, light sensors related to plant growth

Heartbeat monitors, etc. and exercise

AR Kinect sandbox

Lego NXT – drawing shapes, following paths, creating basic AI

Catapults, scratch, and sensors

School fun night, mini-golf course, Rube Goldberg machine – sensors, WiiMotes, RC cars, etc.

Scratch programming – atoms, music, ecosystems, and more

Wii balance board with head tracking in PhysicsCraft

Liquid hydrogen and super conductors

Non-Newtonian fluids (phases of matter)

**Andy**

Kinect math – graphs, prime numbers, etc.

Geocaching

Introduction to Scratch

Introduction Lego NXT Enchanting programming

Catapult

Arduino programming

**Nick**

AR Kinect sandbox

Oculus Rift – virtual primes

Scratch and Arduino programming

Squishy circuits

Electro biography – Reading brain waves – Simulate a polygraph machine

Virtual experiments in Scratch

Raspberry Pi and decomposition

Game development tutorials