Languages

Headband lesson – One player wears the micro:bit on their head which is displaying a words randomly displayed from a vocabulary list. The other player must give clues, but not say the word, so the first player can guess the word. What a fun way to review vocabulary for any subject. Link

Consonant or Vowel – The microbit displays a letter and the player decides if the letter shown is a vowel or consonant and presses the appropriate button. An appropriate image is displayed depending on where the correct button is pushed. link

Harry Potter Sorting Hat – Students shake the micro:bit, and a message appears telling them which house they belong in. Link

Alice in Wonderland – Three mini coding project inspired by the story. Link

- Animation for the Mad Hatter's hat
- Ace of Hearts playing card where the heart is always upright
- Lock and Key – the micro:bit reacts to the door being unlocked

Doctor Who Mission Sonic – Read a tutorial on how to create your sonic screwdriver to defeat the Daleks. Link

Animated Book – Use the micro:bit and circuits to give pages of a book different displays. The example is a story about the water cycle. Link

Mathematics

Salute – A simple math game where 2 players have a micro:bit on their heads showing a randomly generated number. A third player gives a sum or product of the two cards and then announces the result. By looking at the number on the other player's micro:bit, each player tries to determine what number is on their micro:bit. A fun way to practice basic facts and could be remixed to practice integer operations as well! Link

Temperature – Use the micro-bit to determine the temperature. Temperature could also be part of science, but as a measure, it's also part of mathematics. Link

Take the temperature data further by following the ideas in Temperature, with suggestions on collecting and analyzing the temperature data. Link

Coordinate Grid and LEDs – use the 5x5 LED array to learn how to use x/y positioning. Link

Bar Graph – Create a bar graph of the data from the sensors on the micro:bit. Link

Collect Data – Make the micro:bit into a data tracker. Link

Social Studies/History/Geography

Compass – Using one of the built in sensors, create a compass which displays the direction the micro:bit is facing. Link

Adapt the Doctor Who Finding the Tardis lesson to specifically locate something tied into the topic students are currently learning. Link

Telegraph – build a telegraph to communicate with your friends. Link

Science

Infection – use the micro:bit and it's broadcasting capabilities to simulate a disease outbreak. Link

Fireflies – Turn the micro:bit into a firefly and learn about how they synchronize their flashes. Link

Soil Moisture Tester – use electricity to measure the moisture level of soil. Link

Gravity, Motion and Waves – measure the force of motion with the micro:bit accelerometer. Link

Simple Circuit – Use the micro-bit and a simple circuit to light an LED. Link

Electricity – Battery Tester. Link

Rocket Acceleration – Build a rocket made from a pop bottle to measure changes in acceleration as it lifts off and falls back to the earth. Link

Music and the Arts

Happy Birthday Blocks Activity – code the song "Happy Birthday" on the micro:bit, then remix the code for other songs or create your own. Link

Make micro:bit into musical instruments

- Guitar Link
- Banana Keyboard Link
- Paper piano Link
- Beat box Link

To play your music check out Hack Your Headphones – Link

Health and Physical Education

ISTE2017 Visual Perception Experiment - use the micro:bit to measure visual perception by completing a circuit Link

ISTE2017 Reaction Time Experiment – use the micro:bit to measure reaction time by completing a circuit on a board. Link

Terry Fox Step Counter – turn the micro:bit into a step counter! Link

Pogo Game – use the micro:bit to track how high you can jump. Link

Fitness Trainer – Code the micro:bit to count jumping jacks or pushups and celebrate achievements. Link

Monitor Heart Rates – Design a personal heart monitoring system. Link

Stopwatch – Code the micro:bit to function as a stopwatch and time how fast you run. Link