Inquiry/driving Questions:

How much energy can we capture from a stream by creating a water wheel?

Predictions/hypothesis:

We will be able to capture enough energy to charge an
iPhone in 20 hours

Experimental design:

Blueprint drawing and circuit
First we glue spoons to a hand generator and attach it to a stand
Next we attached 1 LED lights to the circuit
Then we will test 2 LED lights
We are going to connect an volt meter to the circuit without LED lights to get the most energy
We will then multiply the volts and amps together to get the watts

We will use this equation and the output to find the energy and create the graph $P_{(w)} = \dfrac{E(J)}{T(s)}$

We will write down our observations

Observations:

We were able to light up maximum 3 LED lights
We measured:
2.5 volts
× 3.6 amps
9 watts

Conclusion: (confirm or deny your predictions with supporting evidence, explain possible errors, ask more questions)

Water Wheel

$E = mt$

$E = 9 + (1 min)$

$E = 9 \times 60$

Time	Watts
1	540
2	1,080
3	1,620
4	2,160

Solar panel

$5.825 \times .1165$

$= .678 \, watts$

$E = .678 \times 60$

time	watts
1	40.68
2	81.36
3	122.04
4	162.72