| Programming Energy | Grade 1<br>Energy in Our Lives |
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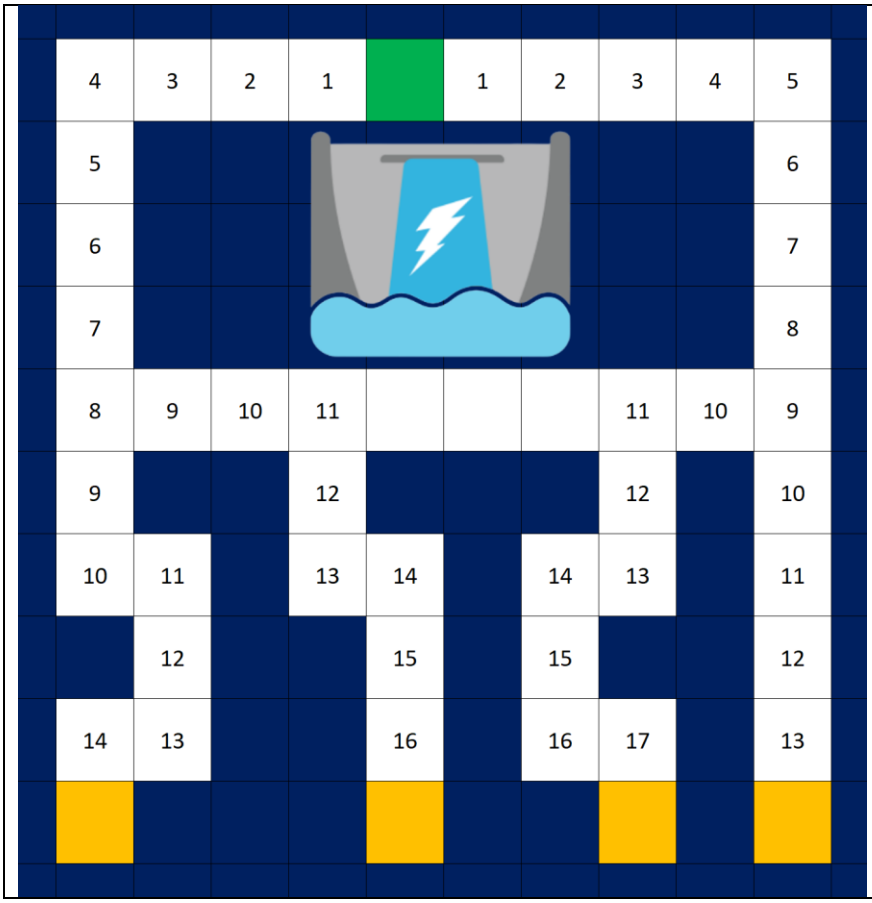
# Handout Solutions

**Hydroelectric Energy**

Hydroelectric energy uses moving water to generate electricity. Water flowing downhill can be used to turn turbines which is converted into electricity.

**Challenge**

Choose the most efficient route to get from the start to the end of the map.
The most efficient route is the one with the fewest number of steps. Our energy supply is limited, we don't want to use more than we need.




1. What route did you take?

Route: B & F

2. How many steps did you take?

Steps: 13

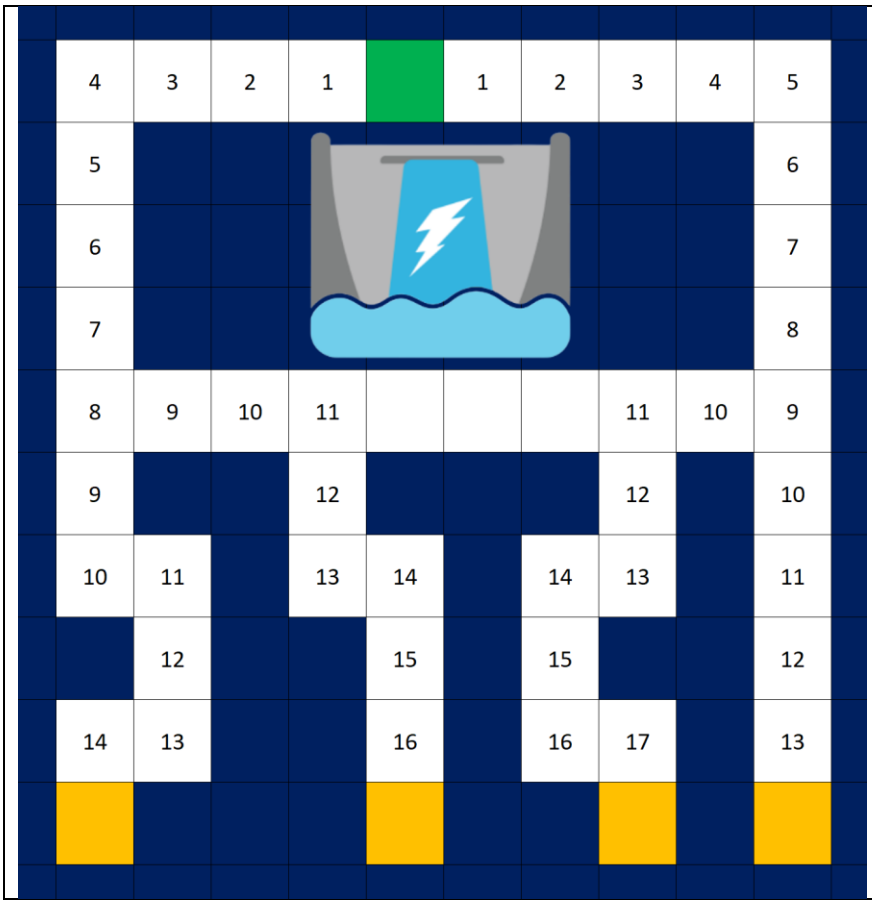
3. How many steps was the longest route?

Steps: 17

**Extension**

Break the route you took into smaller steps.
For example, to start route A, the first step is:

4 steps ⬅




Route breakdown:

5 steps right

8 steps down