

Activity

5

v15.2

Objective

I can **record** an **Algorithm**.


I can describe a **route** through a marble run.

Equipment

4 x  / team

1 x  / team

1 x  / team

1 x  / student

Class Introduction

- **We're going to make some algorithms for each other, and test them**
 - **Build something**
 - **Ask the teacher to photograph it**
 - **Record the thing you built**
 - **Swap your whiteboards with another team**
 - **Try to build the thing they built using their description**

Class Activity

- Students:
 - Build a structure
 - **Teacher takes photo of each team's structure**
 - Swap whiteboards with a different team
 - Build the other team's structure
 - **Compare the photo of each structure to the re-built one**
- Teacher help

- **Where should they put the marbles?**
- **Does your diagram show what will happen - the algorithm?**
- **Where will the marbles come out?**
- **Are there labels you can draw to help people build your structure?**
- **How can someone check they've built it correctly?**

Class Plenary

- **What's an Algorithm?**
 - Multiple steps that fit together to make something
- Each team of students:
 - Describe their original diagram
 - Show how the diagram matches the structure that the other team built (or doesn't)
 - **What changes could you make to the diagram to make it easier to build from?**
- **When we record the structure, it helps to show the ROUTE that the marbles take.**
 - What's a **route**?
 - **A path that a marble follows**
 - **It has a start and a finish**
 - **Marbles on a route always go the same way, and finish at the same place**

Progression

c.f. Progression Matrix for Activity 5.