Lab: Double-Slit Interference, Part One

When a beam of light passes through two thin slits, something funny happens. The light creates a pattern on the other side that looks like this:

This is what we call an "interference pattern". This week you will be investigating this phenomenon.

Questions:

What things might affect the spacing between the bright spots? After you've brainstormed some ideas, call your TA over to help you narrow it down to two factors for you to investigate experimentally.

What is the relationship between the spacing of the bright spots and the two factors? Design an experiment that will explore these relationships.

Timetable

I. Brainstorming:	**15 min**	**Whole class**
II. Taking Data:	**30 min**	**Groups of 4**
III. Class Discussion:	**10 min**	**Whole Class**
IV. Taking Data-:	**30 min**	**Groups of 4**
V. Writing the Lab Report:	**25 min**	**Groups of 4**