

OPEN MIDDLE TASKS

Background:

Open middle tasks allow students to use a range of strategies to attempt to find a solution but do not have an open end, i.e. there is only one correct solution. The benefit of using these problems is the rich discussion students can have around the various strategies used (open middle) to find the solution (closed end).

Resource:

A huge collection of Open Middle problems can be found at the Open Middle website. Visit <https://www.openmiddle.com/>

Summary:

- Choose one of the many problems available through the website
- Display the problem for students
- Many of the Number problems will require students to place the numbers from 1 – 9 in boxes to make a given criteria true, for example, fill in the boxes to create the closest possible sum to 100

SUMS TO 100

Directions: Using the digits 1 to 9 at most one time each, fill in the boxes to create the closest possible sum to 100.

		+			+		
--	--	---	--	--	---	--	--

Figure: Sums to 100 submitted by Graham Fletcher (<https://www.openmiddle.com/sums-to-100/>)

- If students are having difficulty provide them with *Hint* suggested
- Once students have found a solution have them share the different methods and approaches used with the class

More Information:

The Open Middle website includes problems for students from K -12. Each set of problems have been sorted into different categories, including Number and Operations, Algebraic thinking, Geometry and Measurement. There is also a function for users to submit their own problems.

Further Reading:

Kaplinsky, R. (2016). The difference between open ended and open middled problems. Retrieved from <https://robertkaplinsky.com/the-difference-between-open-ended-and-open-middled-problems/>

Open Middle®: Challenging math problems worth solving. (2019, September). Retrieved from <https://www.openmiddle.com/>