

Math PBL

Marble Maze



The Task:
To design and build the ultimate marble maze course



Requirements:

You will design an obstacle course/ maze to the size of an A3 Piece of paper or cardboard

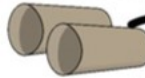
It can be made with cardboard and paper (any other materials need to be negotiated).

This is an ultimate maze that needs to include a range of obstacles for the marble. Think tunnels, ramps, loops and

It needs to include at least 4 different types of angles: right, acute, obtuse, full circle/revolution.

Included Concepts:

- Measurement
- Able to use a ruler measure accurately
- Understands angles and how to use them



Real World Mini Math Project



Steps to Take:

1. Sketch out a range of possible designs.
2. Label the materials and angles used
3. Test out your maze.
4. Modify as needed.
5. Record the each angle type and degrees used in your final design.
6. Share with the class



Assessment:

Concepts accurately covered	15
All sections completed to a high standard	15
On task work ethic	15
Clearly shows mathematical thinking/working out	15
Comment:	
	120



Students Will Love!

Detailed Student Outline with Concepts & Steps Covered



Marble Run

The Task:

To design and build the ultimate marble maze course

Included Concepts:

- Measurement
- Able to use a ruler measure accurately
- Understands angles and how to use them

Requirements:

Design an obstacle course/ maze to the piece of paper or cardboard with cardboard and paper (materials need to be negotiated). Create a maze that needs to include circles for the ramps, loops and 4 different types of turns (90 degrees, 180 degrees, full circle/

Real World Mini Math

Steps to Take:

1. Sketch out a range of possible designs.
2. Label the materials and angles used.
3. Test out your maze.
4. Modify as needed.
5. Record the each angle type and degrees used in your final design.
6. Share with the class

Assessment:

Can measure with a ruler	15
Can correctly label each angle type	15
Can accurately use a protractor to measure and record each angle	15
Can modify angles to help with time duration	15
Clearly shows mathematical thinking/ working out	15
Comment:	120



Easy to Use Worksheets Included



$1+2=3$ $9-4=5$ $10-6=4$ 8

Mathematical Thinking/ Working out Page

$10-7=3$ $8-6=2$

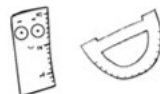
$9-2=7$ $9=2$

Marble Maze – Angles used



Angle Name/ Type	Degrees Measured

Marble Maze – Angles used



Angle Name/ Type	Degrees Measured

Digital & Printable Google Slides Option



Marble Maze Now available to use with Google Slides/ Classroom



This resource can now be printed as a PDF or used in Google slides, helping you be flexible with learning situations.

Tips for use:

- Click on the link above
- If using in Google classroom you will need to click on 'Make a copy for each student'
- Remember you need to use the same Google account that you purchased the resource with.

CLICK FOR
LINK

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Link](#)

Want to send only some of the PDF pages? Click on File – print – instead of printer use the drop down menu to choose PDF
Then just select the pages you want to create in a new PDF document

Quick Teacher & Self / Peer Assessment

Assessment

Mini Math Project: Marble Maze

Concepts accurately covered	/5
All sections completed to a high standard	/5
Clearly shows mathematical thinking/ working out	/5
On task work ethic	/5
Total:	/20

Comment:

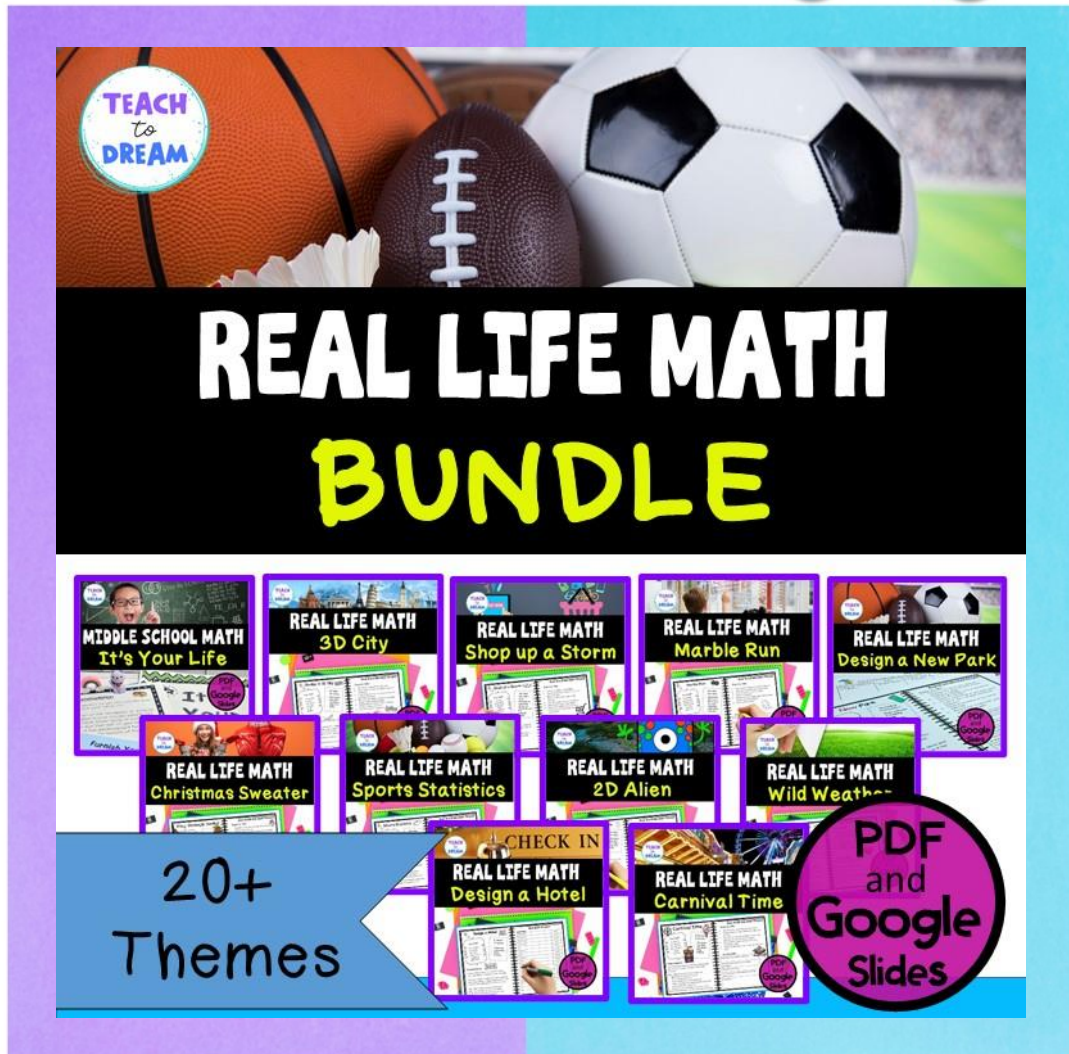
Self/ Peer Assessment:

Mini Math Project: Marble Maze

Shows mathematical thinking	1 2 3 4 5
Easy to follow/ understand	1 2 3 4 5
Mathematical concepts are completed accurately	1 2 3 4 5
On task work ethic during lessons/ task assignment	1 2 3 4 5
Total:	/20

Best part of the project	Ideas for improvement

Interested in PBL writing Tasks that Engage?



TEACH to DREAM

REAL LIFE MATH BUNDLE

MIDDLE SCHOOL MATH
It's Your Life

REAL LIFE MATH
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REAL LIFE MATH
Shop up a Storm

REAL LIFE MATH
Marble Run

REAL LIFE MATH
Design a New Park

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REAL LIFE MATH
Sports Statistics

REAL LIFE MATH
2D Alien

REAL LIFE MATH
Wild Weather

20+ Themes

CHECK IN
REAL LIFE MATH
Design a Hotel

REAL LIFE MATH
Carnival Time

PDF and Google Slides

The advertisement features a central image of a basketball, a football, and a soccer ball. Below this, the text 'REAL LIFE MATH BUNDLE' is prominently displayed. A collection of ten smaller images shows various math project themes, each with a title and a small '20+ topics' badge. A blue banner on the left indicates '20+ Themes', and a purple circle on the right specifies 'PDF and Google Slides'. A 'CHECK IN' badge is also present over one of the project thumbnails.

Click to SAVE time & Money.