



TOOL // 3D Geometry & Measurement Performance Task

What is it used for?

The tool allows the teacher to gather summative assessment data on student understanding of skills and concepts covered in a unit on 3D Geometry and Measurement.

How do you use it?

After a teaching/learning unit on 3D geometry and measurement students are asked to complete the following task:

The Hershey candy bar company has created 2 new candy bars. They need to create packaging for these candy bars, each one is a different square or rectangular based prism. You need to decide what shape each candy bar will be and create packaging for each one. Each candy bar package must be very different from the others.

You Must:

- 1. Create 2 different nets for each package*
- 2. Draw each package and label length, width and height/depth*
- 3. Show the volume and capacity for each package.*
- 4. If Hershey packs candy bars for shipping in boxes that are 52 cm wide, 60 cm long and 30 cm tall. How many of each chocolate bar can go inside each shipping box?*

Once students have completed the task the teacher assesses using the rubric across categories.

3D Geometry and Measurement Performance Task

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1. Create 2 different nets for each package
2. Draw each package and label length, width and height/depth
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4. If Hershey packs candy bars for shipping in boxes that are 52 cm wide, 60 cm long and 30 cm tall. How many of each chocolate bar can go inside each shipping box?

RUBRIC				
Categories	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding	<ul style="list-style-type: none"> -writes fractions -creates nets - draws and labels 3D shapes - finds volume (many major errors) 	somewhat accurately: <ul style="list-style-type: none"> -creates nets - draws and labels 3D shapes - finds volume (many errors) 	generally accurately: <ul style="list-style-type: none"> -creates nets - draws and labels 3D shapes - finds volume (some errors) 	Fully and accurately: <ul style="list-style-type: none"> -creates nets - draws and labels 3D shapes - finds volume (very few or no errors)
Thinking	<ul style="list-style-type: none"> - creates very similar 3D shapes - creates very similar nets for each shape - very simple/inaccurately finds volume and capacity for each shape and for shipping boxes - does not check the reasonableness of their answers -does not show all of their work 	<ul style="list-style-type: none"> - creates somewhat similar 3D shapes - creates somewhat similar nets for each shape - somewhat accurately finds volume and capacity for each shape and for shipping boxes Sometimes: <ul style="list-style-type: none"> - checks the reasonableness of their answers - shows all of their work 	<ul style="list-style-type: none"> - creates somewhat different 3D shapes - creates somewhat different nets for each shape - generally accurately finds volume and capacity for each shape and for shipping boxes Usually: <ul style="list-style-type: none"> -checks the reasonableness of their answers - shows all of their work 	<ul style="list-style-type: none"> - creates very different 3D shapes - creates very different nets for each shape - fully and accurately finds volume and capacity for each shape and for shipping boxes Always: <ul style="list-style-type: none"> - checks the reasonableness of their answers - shows all of their work
Communication	<ul style="list-style-type: none"> -very simply communicates learning for their audience - little use of correct math conventions 	<ul style="list-style-type: none"> - somewhat communicates learning for their audience - sometimes uses correct math conventions 	<ul style="list-style-type: none"> - generally clearly communicates learning for their audience - generally uses correct math conventions 	<ul style="list-style-type: none"> - clearly and effectively communicates learning for their audience - always uses correct math conventions
Application	With limited accuracy applies learning to explain how many of each shape fit in the shipping boxes	Somewhat accurately applies learning to explain how many of each shape fit in the shipping boxes	Generally accurately applies learning to explain how many of each shape fit in the shipping boxes	- fully and accurately applies learning to explain how many of each shape fit in the shipping boxes