



Problem Posing Pro-Forma : Use of resources (videos and photographs)

Question: Describe the pattern, can you make new shapes and patterns using the shapes in this one?

Assumption

A numerical or maths problem has multiple solutions or none, it is framed as an open-ended question. There is no clear path to the answer – students cannot easily use a formula. Within the problem students are often given too much information or not enough

1. Activity Name: See - Think - Wonder
2. Expected duration of activity: 20 minutes
3. What EQF level is the activity (approximately)? all
4. What is the topic? Geometry
5. What are the Learning Outcomes? Communication about shapes and 3D
6. Prerequisite/prior knowledge assumed? none
7. In what ways does the problem, or the way the problem is delivered to the students:
 - encourage critical way of investigating and thinking? Thinking about where you meet patterns like this
 - encourage analysis? What do you see? What do you think looking at this? What do you wonder looking at this?
 - allow students to be creative? The students may in pairs describe their own pattern to each other and challenge each other to draw each other's pattern
 - allow students time to think? Yes - it is important that the students are allowed time to write down what they see, think and wonder.
 - have a relevant or interesting context? Where do you find similar patterns?
 - allow for multiple ways of solving or investigating the challenge? Every student can make her own pattern
8. Resources or materials required? Projector to show photo from the PC/Mac
9. What technology is required in the delivery of the problem?

[Type here]

10. What technology might potentially be required in the solving of the problem?
GeoGebra - import the picture and draw upon it to investigate how it is built
11. Suggestions for delivery - Screencast showing patterns and giving the students' explanation on how it is constructed