

(model, 30/05/2016)

vidumath matrix

The matrix provides an overview of entry, intermediate and advanced video production examples. The levels of the matrix are based on video production levels and not on Maths levels. There will be a range of production levels from beginners to advanced video producers. The levels also build up on each other. The knowledge acquired with the entry task can be applied within the intermediate task, and the knowledge acquired with the intermediate task can be applied within the advanced task.

Entry task	Screen recording / one shot video <ul style="list-style-type: none"> • Production: Recording video in one shot – without any video editing. • Possible maths content: this can include any content of what takes place in a maths class or even the documentation: It could be short excerpts of a maths situation; It will show one short idea / expression; ...
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The entry task is to offer a low barrier to entry for teachers so that motivation and confidence is raised to try video education. If teachers have no experience then it is vital to start with very basic exercises. Entry tasks require very little technology understanding. They can include still and moving images.

A very first introduction could be:

- The production of still images which show where Maths or numbers are featuring in the school or in the immediate neighbourhood – for example numbers on signs or numbered objects.
- Or on a higher level it could include a one shot video of an ‘Maths expression’ with students acting out or pointing at graphics or objects.

Entry tasks don’t include video editing. The recorded material is used as it is.

Intermediate task	<p>Stop motion (animation)</p> <ul style="list-style-type: none"> • Production: Stop motion is a basic video animation where still images are put together in a software app or video editing software. Objects are moved slightly and a still image is taken with every movement. They are like cartoons. The images are put on a video timeline with a short duration between each – and they will start to move automatically. Stop motion is a wonderful introduction to the idea of moving images. • Possible maths content: Stop motion is especially suited for maths content where animation works well: showing symmetry; explaining fractions; explaining shapes; ..
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The intermediate introduces video production. The key difference is that still and moving images, and sounds are edited. We have chosen stop motion as the key intermediate example since it is a playful activity but also an activity which can be done nicely without the children appearing in the video or hearing their voices (which is a concern in some schools across Europe).

Stop motion also helps to understand how all videos and moving images are produced. They are a sequence of still images. A “moving” image does not exist; it is created in our brains. Roughly 25 still images per second transform in this way into a moving image.

Advanced task	<p>Creative explorations</p> <ul style="list-style-type: none"> • Production: This is open for different video production ideas but is based on “proper” video production: including camera work and video editing • Possible maths content: All maths content can be included here: documentation of maths classes / events; any classroom content; music and drama maths displays; ...
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The advanced task is advisable only once entry or intermediate tasks have been done and the students possess an adequate knowledge of video production. It is totally open to any form of video production.