FRAMEWORK FOR METHODS **Information about teacher/worker in school.**

#makepersonal

Teachers/worker name, surname:	Janko Harej
Position:	High school professor
2-3 about teacher:	A teacher, a team worker, a father, a musician
Check X if you add picture of teacher.	

1. **Description for method.**

#makeinteresting #makeflaxable

Method name :	**Peer assessment in 3d printing**
In what subject you can adapt this method:	It is possible to use peer assessment at any subject. The teacher must just change the content assessed and the criteria for peer assessment. Special attention must be payed to motivation that peer-assessment will be done fair.
Description in few sentences:	Students create a 3d model in an online tool according to very specific instructions. The model can be very basic. Students can start from scratch or use a template of an existing 3d model. 3D models get published/uploaded in (Moodle) web course where the peer assessment is done. Whole process can take at least 2 hours.
Description of process :	The teacher must prepare: • the very detailed instructions for students to design the 3d model (leave room for student's artistic expression...) • convert the instructions to peer-assessment criteria (criteria must be set very clear, so students can understand them) • create the activity in Moodle course where students can upload their 3d models and do the peer-assessment – the activity is called "workshop"
1.	Teacher gives an introduction to the whole module. It presents the steps, goals and the criteria for self-assessment.
2.	Students create the online account and take the online tutorial for 3d modeling.
3.	Students create the 3d model according to the instructions. The instructions include directions about dimensions, thickness, different holes and also leave space for student's individual artistic and other expression.

4.	Students publish their 3d models and paste the hyperlink to their model in workshop activity in moodle course set by teacher. After that the workshop activity is switched to the phase of peer-assessment.
Example:	At the informatics we develop 3d models in an online tool called https://www.tinkercad.com/. They use templates that they can get from online repositories like https://www.thingiverse.com. Instructions include guides for different dimensions, position of holes for electronic circuit, gears etc. Instructions are converted in a peer-assessment criteria that student use in a sense: has a 3d model hole of radius 2mm at position … If student's model does not get enough points, he/she must correct it. The 3d models then get printed. Students are responsible for the 3d model they assess. If they assess it wrong, they have to model it instead of an author. The process takes 2 sets of 2 hours.