

# Science Performance Assessments Degree of Creativity

Name \_\_\_\_\_

Teacher \_\_\_\_\_

Period \_\_\_\_\_

Science Project Creativity is the production of an original piece of work that requires self-reflection and directly demonstrates a student's mastery of aligned objectives in the least restrictive framework.

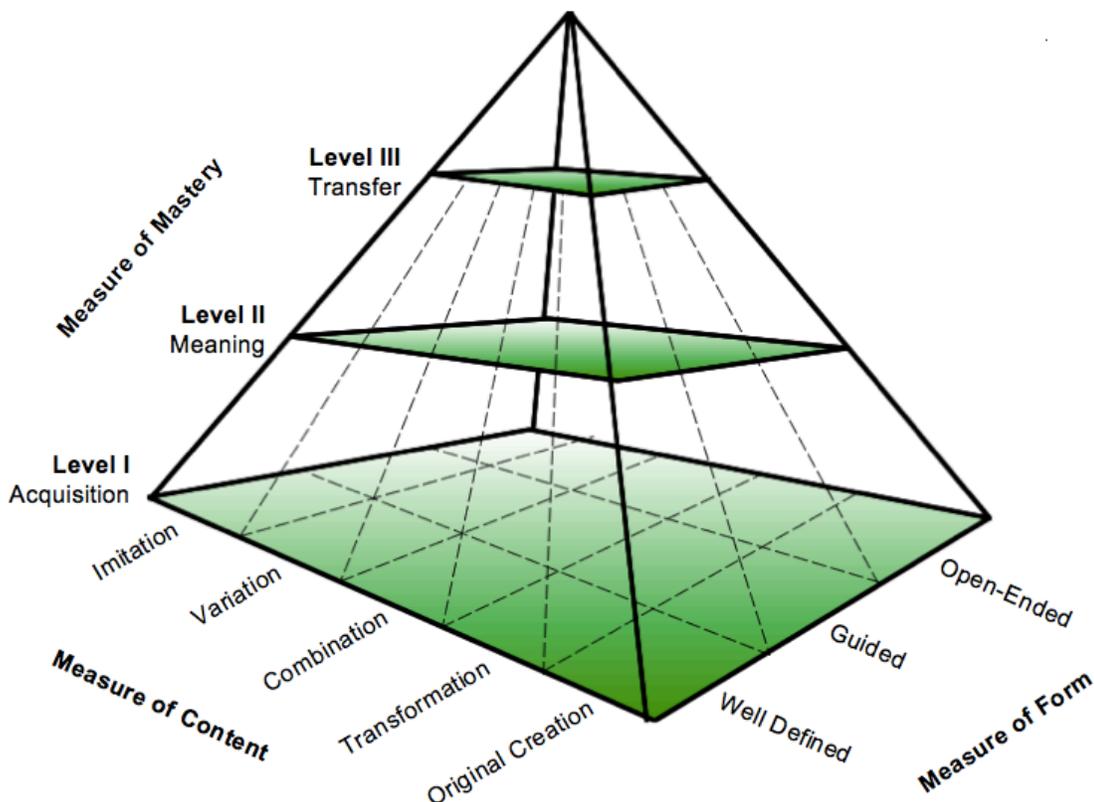
## Measure of Form

is related to the requirements of the project. In physics for example, the paper bridge performance assessment begins with the mass, length, height and width requirements of the bridge. These construction standards define the limitations of the project that in turn allow for an objective evaluation of the bridges.

Are the requirements well defined, guided or open-ended?

## Measure of Content

Is related to the student's creativity. In physics for example, the barrier performance assessment requires the student to construct a paper bumper. The shape, mass, rigidness and construction techniques of the bumper are left up to the student's imagination. How creative is the work?



## 5 Measures of Creativity

- **Imitation** – The replication of previous work.
- **Variation** – The modification of an existing work. The imitation of a previous work with a tweak here, a tweak there.
- **Combination** – The mixture of two or more works in a way that changes the essential form or content of both or all. It mashes two or more things together to create something that is not completely identifiable as either alone.
- **Transformation** – The translation of a work into another medium or mode. It is the creation of a new work that retains the core essence of the original work.
- **Original Creation** – The creation of something previously unrecognizable.

## Measure of Mastery

Is related to how well the performance assessment measures a student's mastery of aligned objectives and their depth understanding.

- **Level I** – Demonstrates mastery of acquisition (knowledge) level objectives. Student is able to recall what was learned. Keywords: define, describe, identify, observe
- **Level II** – Demonstrates mastery of meaning (comprehension) level objectives. Student is able explain something in his or her own words. Keywords: differentiate, explain, interpret, predict, research
- **Level III** – Demonstrates mastery of transfer (application) level objectives. Student is able to apply concepts and frameworks to new situations. Keywords: analyze, apply, calculate, construct, distinguish, evaluate, generate, relate, solve

## References

<http://www.senseandsensation.com/2012/03/assessing-creativity.html>