

Workshop: Metacognition

Objective = through a metacognition exercise, identify the processes at work in reasoning and possible blockages for a pupil. Arrive at a clear definition of metacognition and understand its usefulness.

1) The experience of metacognition

5 minutes instruction an instruction reformulation :

« *At the same time as solving the proposed riddle, note in a table*

- *On a first column : the draft of the reflection*
- *On a second column : everything that goes through your head.*”

20 mn individual work

Last instruction: “*Represent in the form of a drawing what is in the right-hand column.*”

2) Debriefing

15 minutes of individual work exploitation: valuation of invariants and differences

15 mn application examples, for example video (reflective feedback) and exchanges on possible applications

For the last part of the video “value methods”?

http://ww2.ac-poitiers.fr/matrice/spip.php?article843&debut_page=1

or “allow for reflection”

http://ww2.ac-poitiers.fr/matrice/spip.php?article843&debut_page=1

This workshop was built from the following source:

https://guidecompetencescles.scola.ac-paris.fr/Doc/A27_exemple_script_seance_attitude_reflexive.pdf

Source of riddle: <https://enigmatik.epikurieu.com/enigmes/Les-pommes-/316/enigme.fhtm>

Enigma

We have nine Wolf’s Paw apples, all identical except one, this one being five grams heavier than the others. We also have a tray scale. How do we know which apple is heavier, using the scale only twice?

Solution

We have to divide the nine apples into three groups of three, and then weigh two of those groups. If one of the two groups is heavier, it contains the heaviest apple; if the scale does not move, the third group contains the heaviest apple. Then one of the three apples from the heaviest group is removed and the other two are put in the scale ; if an apple is heavier, it is the one we are looking for, otherwise the third apple is heavier.