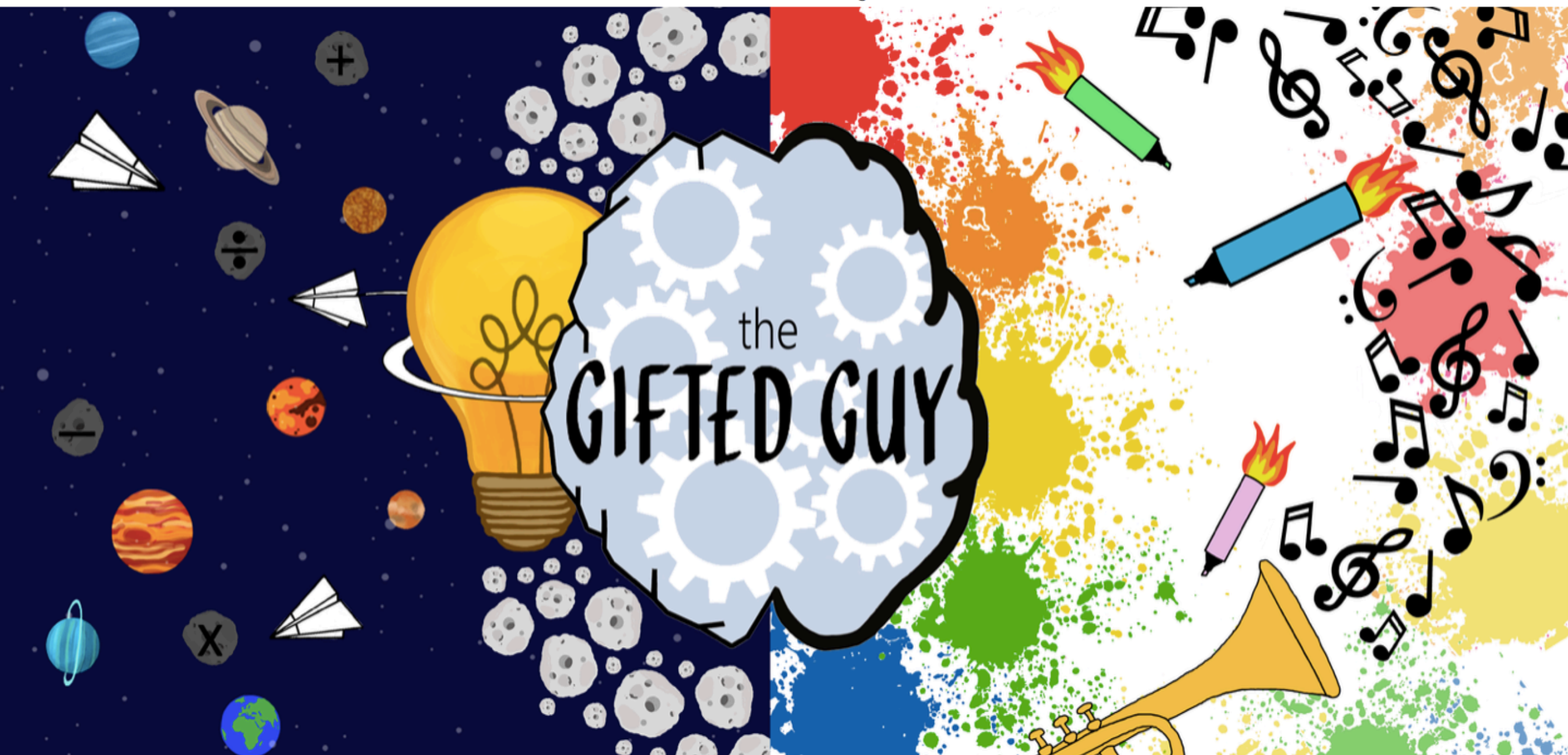

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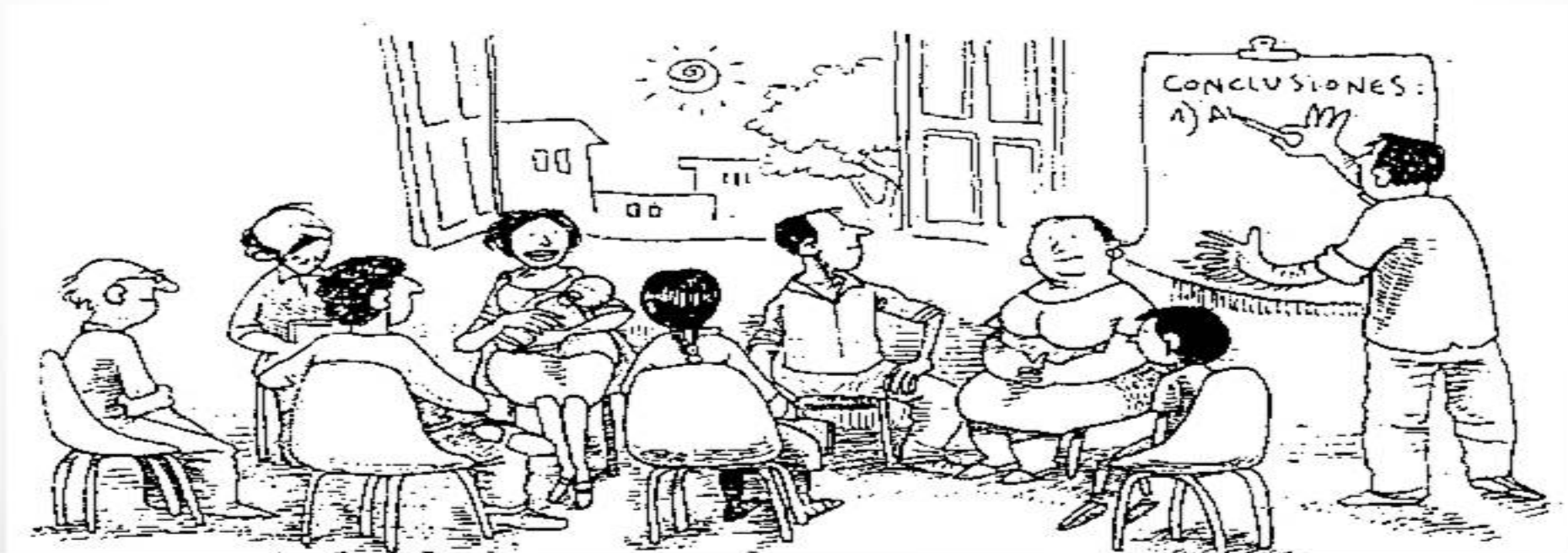
PROBLEM-BASED LEARNING



WHAT IS PROBLEM-BASED LEARNING?

“**Student-focused** learning method in **small groups** which uses a **true-to-life problem** as a **trigger**/stimulus to develop **problem-solving skills** and to acquire **domain knowledge**”

McGrath, D. (2002): “Teaching on the Front Lines: using the Internet and Problem-Based learning to enhance classroom teaching”. *Holist Nursing Practice*, 16, 2, 5-13



Traditional Learning

Told what
we need to
know

Memorize it

Problem
assigned to
illustrate how
to use it

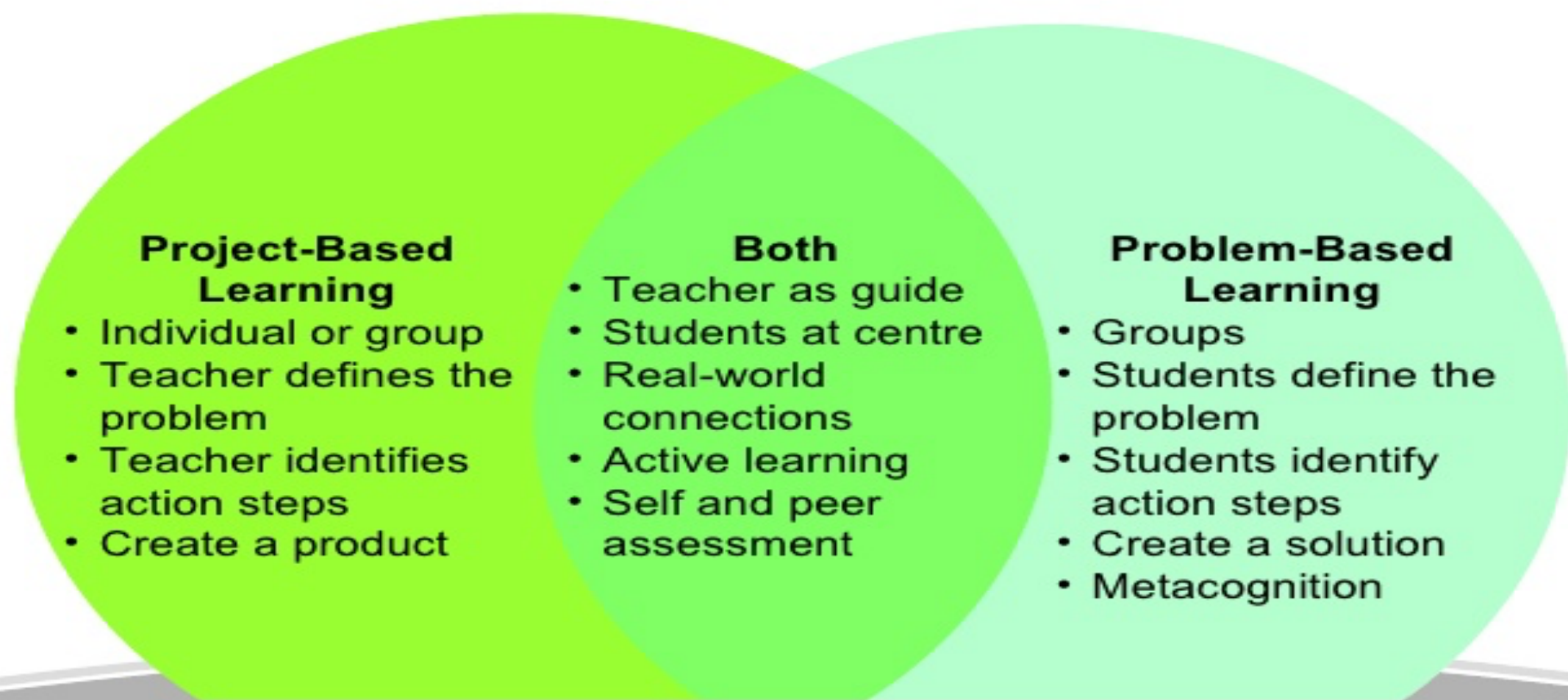
Problem-Based Learning

Problem
Assigned

Identify
what we
need to know

Learn & apply
to solve the
problem

What's the Difference?



Bottom Line: In Problem-Based Learning, students have more control over their own learning and the processes involved.

ADVANTAGES OF PROBLEM-BASED LEARNING



STUDENTS NEED TO SOLVE REAL
PROBLEMS THAT CONNECT
TO A REAL CONTEXT.



STEPS OF PRBL

1. Present the problem
2. List what is known
3. Develop a problem statement
4. List what is needed
5. List actions, solutions, or hypothesis
6. Present and support the solution



EXAMPLES FROM K TO 12



Kindergarten

Invasive insects are eating the leaves off plants in the school garden, investigate and determine appropriate actions to rejuvenate the garden so that all plants are healthy and beneficial insects thrive.



12th Grade

Design a logo and a brand for the upcoming community art show. Incorporate what you know about good design into your marketing and promotion plan.

ELEMENTS OF PBL

1

Learning is organized around an authentic, ill-structured problem.

2

Authentic assessment tied directly to the problem.

3

Student collaboration and team-based learning.

4

Expert facilitation and scaffolding

HOW SOME THINK IT WORKS

Problem Based Learning



Phases of the Problem Solving Process
(these are reiterative phases)

| | Guiding Question | Actions to take | Expected Outcome(s) |
|----------------|---|--|--|
| Phase 1 | What do we already know? | Explore the problem; Connect it to your own experience; Discuss the situation and the problem; Draft and agree on working definitions of concepts used; Set targets for investigation. | Problem statement (outset for the investigation, open to revision) |
| Phase 2 | What do we need to know? (in order to solve the problem) | List questions and learning targets; Break the problem down into components; Create hypotheses; List possible solutions. | Formulating Learning Goals (an analysis of what information is needed and how it will be obtained) |
| Phase 3 | What should we do? | Organize, discuss, assess ideas and hypotheses; Find and consult resources, people; Assign roles and tasks; Analyze and evaluate the new information. | Action- and study plans (determining who will do what, how?) |

Subject-Based Learning Activity

Problem-Based Learning Activity

You are teaching a unit in human anatomy on the ligaments of the knee. To test your students' knowledge, you give a labeling exam.

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REMEMBER...

MAKE IT REAL

Brainstorm

FIND A REAL PROBLEM.

Define

MAKE IT RELEVANT

Field Studies

FIGURE OUT WHY IT MATTERS TO YOU AND YOUR COMMUNITY.

Plan

MAKE AN IMPACT

Create

DO SOMETHING ABOUT IT!

Advocate