

A photograph of a classroom scene where students are engaged in a hands-on learning activity. In the foreground, a student is focused on arranging several yellow circular cutouts on a dark surface. Other students are visible in the background, some looking at papers and others interacting. The overall atmosphere is one of collaborative learning. The text is overlaid in the center of the image in a bold, yellow, sans-serif font.

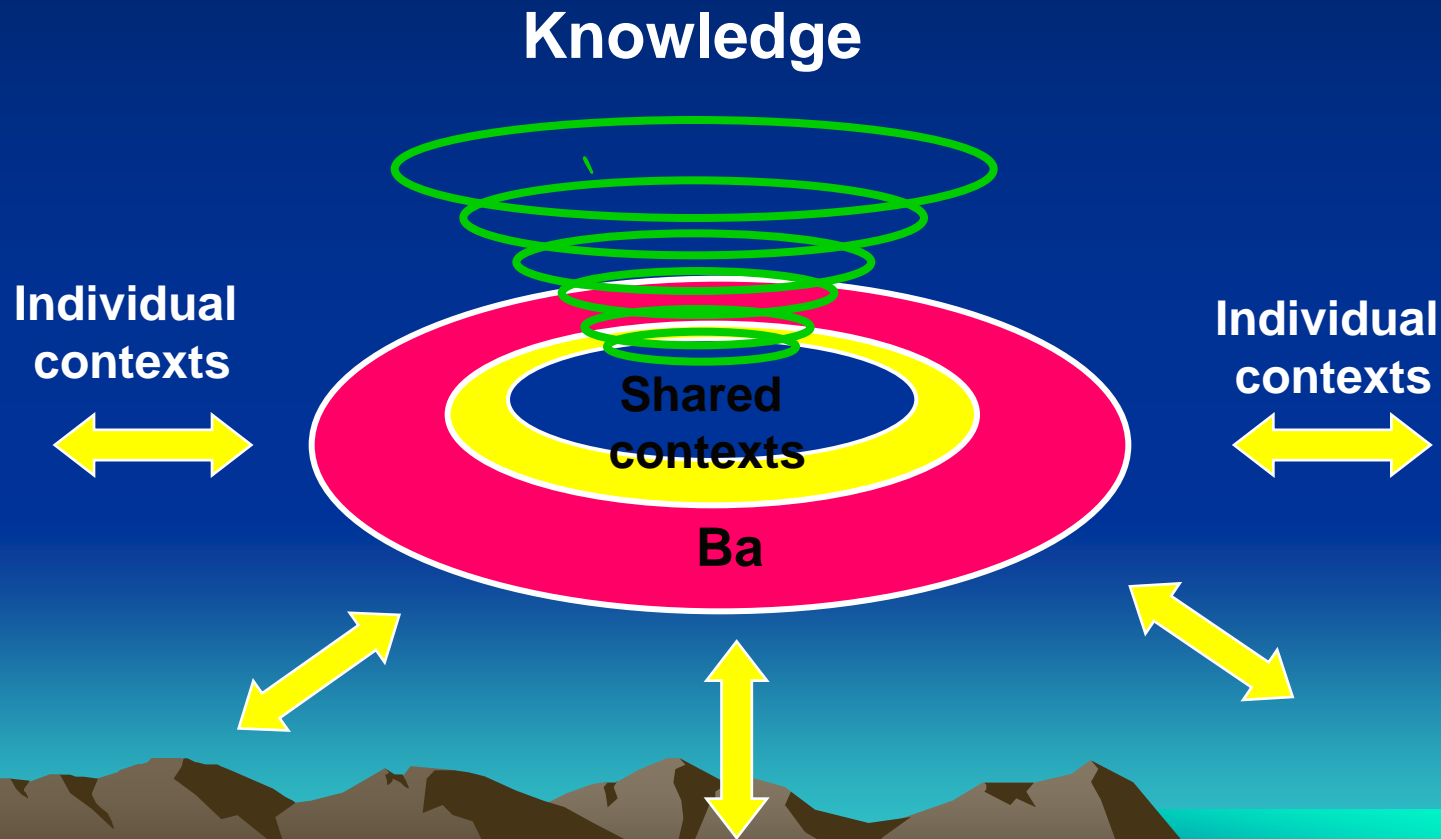
**MODEL
STUDENT CENTERED LEARNING
DALAM PEMBELAJARAN
MATEMATIKA**

Teori Pembentukan Pengetahuan

- ***Tacit knowledge.*** *Pengetahuan bersifat subyektif dan experiential yang terkait erat cara pandang individual*
- ***Explicit Knowledge.*** *Pengetahuan obyektif dan rasional yang dapat diekspresikan secara bebas konteks*

Ba as shared context in motion

Individual contexts are shared at Ba, and the shared contexts and individual contexts expand themselves through interaction



Advanced Mathematical Thinking
Inspired by concept images, formalised by
Concept definitions and logical deductions

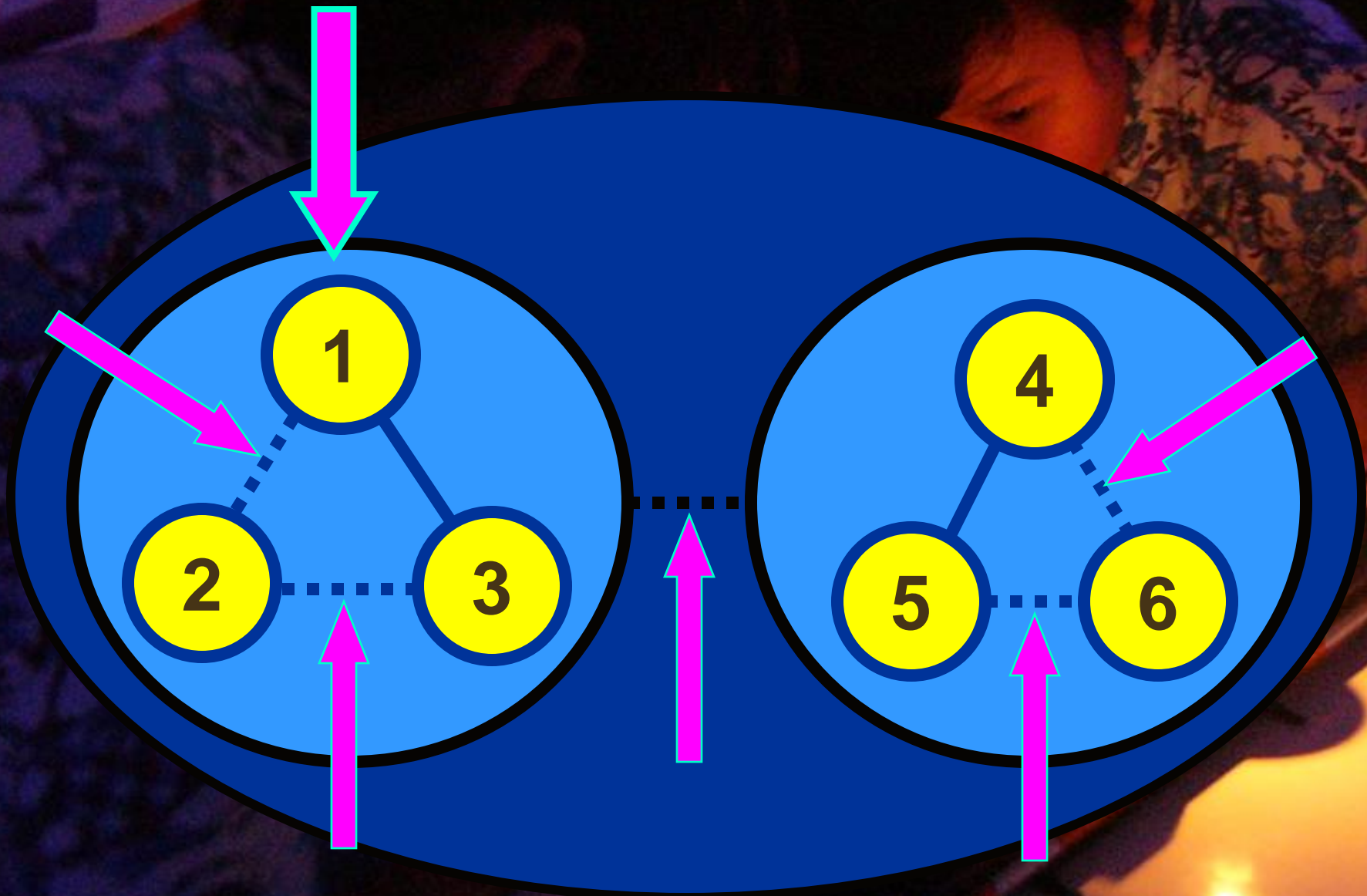
Visuo-spatial
prototypes
becoming
successively
more verbal
deductive

**Conceptual
links**

Actions
becoming
symbolised
as processes
encapsulated
as procept

Perception of
Objects --- And --- **Actions**
Interactions with external world

Developing
cognitive
structure
depending less
on physical
sensations
and more
on internal
constructions



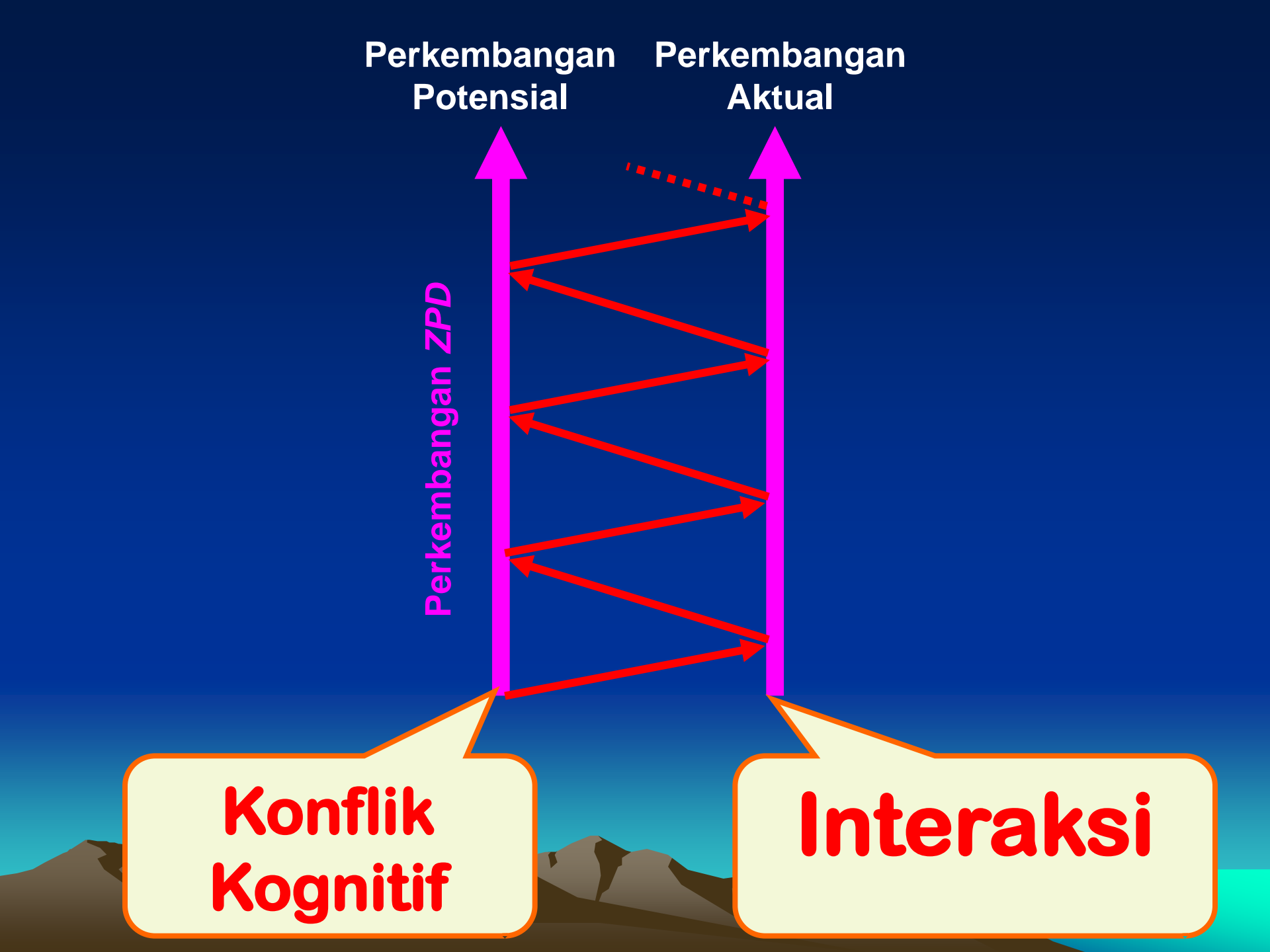
Perkembangan
Potensial

Perkembangan
Aktual

Perkembangan ZPD

**Konflik
Kognitif**

Interaksi



Six Components of Quality Teaching

- *Building understanding*
- *Communicating*
- *Engaging*
- *Nurturing*
- *Organizing for learning*
- *Problem solving*



Building Understanding

- *Penjelasan guru*
- *Interaksi*
- *Penjelasan siswa*
- *Penggunaan hands on – minds on*

Communicating

- *Komunikasi guru-siswa*
- *Komunikasi siswa-siswa*
- *Komunikasi siswa-guru*
- *Pertanyaan guru*

Engaging

- *Aksi guru – stimulasi belajar*
- *Keterlibatan siswa dalam proses belajar*

Nurturing

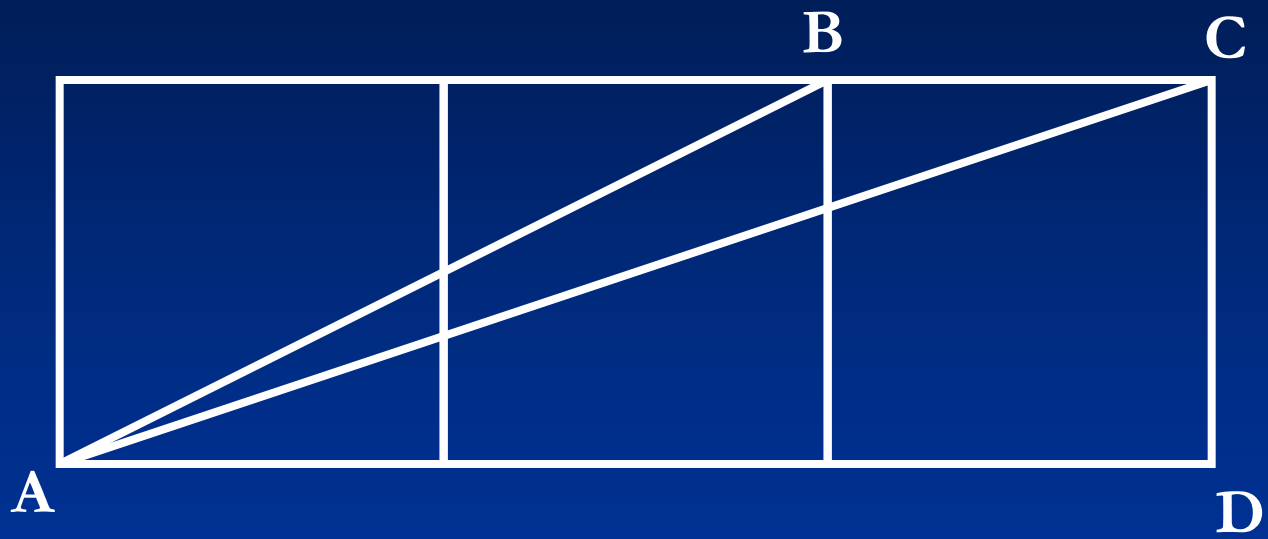
- *Responsif thd kontribusi siswa*
- *Pentingnya balikan*

Organisasi Belajar

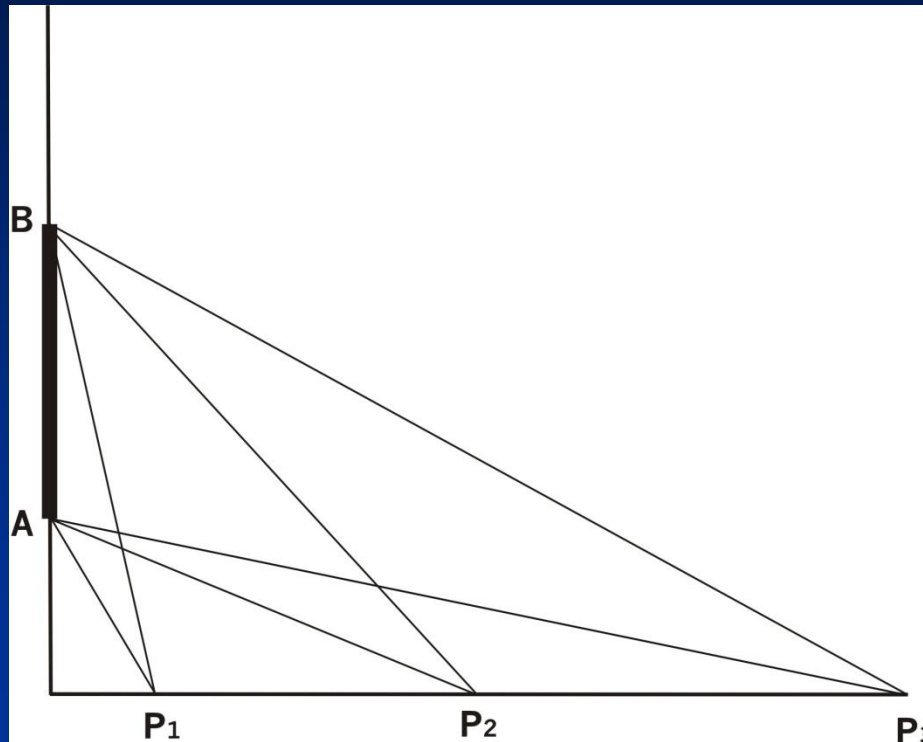
- *Manajemen alat-hands on*
- *Setting kelas-mobilitas*
- *Alur pembelajaran*
- *Advance organizers*

Problem Solving

- *Posing problems*
- *Solving problems*
- *Supporting children's PS*



Pada gambar di bawah ini, AB adalah penampang sebuah layar bioskop, sedangkan titik P adalah posisi tempat duduk penonton.



- 1. Ukurlah besar sudut AP_1B , AP_2B , dan AP_3B . Sudut manakah yang paling besar?*
- 2. Tentukan posisi titik P pada garis hirisontal sehingga diperoleh sudut APB yang terbesar (sudut pandang dari posisi tempat duduk P terhadap layar AB yang terbesar).*

