

Science Instructional Media

- **Concepts and theories of science instructional media**

Instructional media is a tool used by teachers to explain material in the classroom, which is anything that can be used to stimulate children's thoughts, attention, and feelings, to encourage the learning process.

- **History of the instructional design**

1900s – 1930s The Visual and Audiovisual Instruction

photographs, slides, sound recordings, and films.

World War II – 1970s

Training films, overhead projector, Audio equipment, instructional television,
Computer –assisted instruction (CAI)



Science Instructional Media

1980s – 1990s

Personal Computers, Hypermedia, and Internet

1990s – 2000

Interactive Multimedia Instruction, Internet simulation

2000s – nowadays

Mobile devices, social media → Online and Blended Learning, Mobile Learning



Type of science instruction media

Learning through abstraction

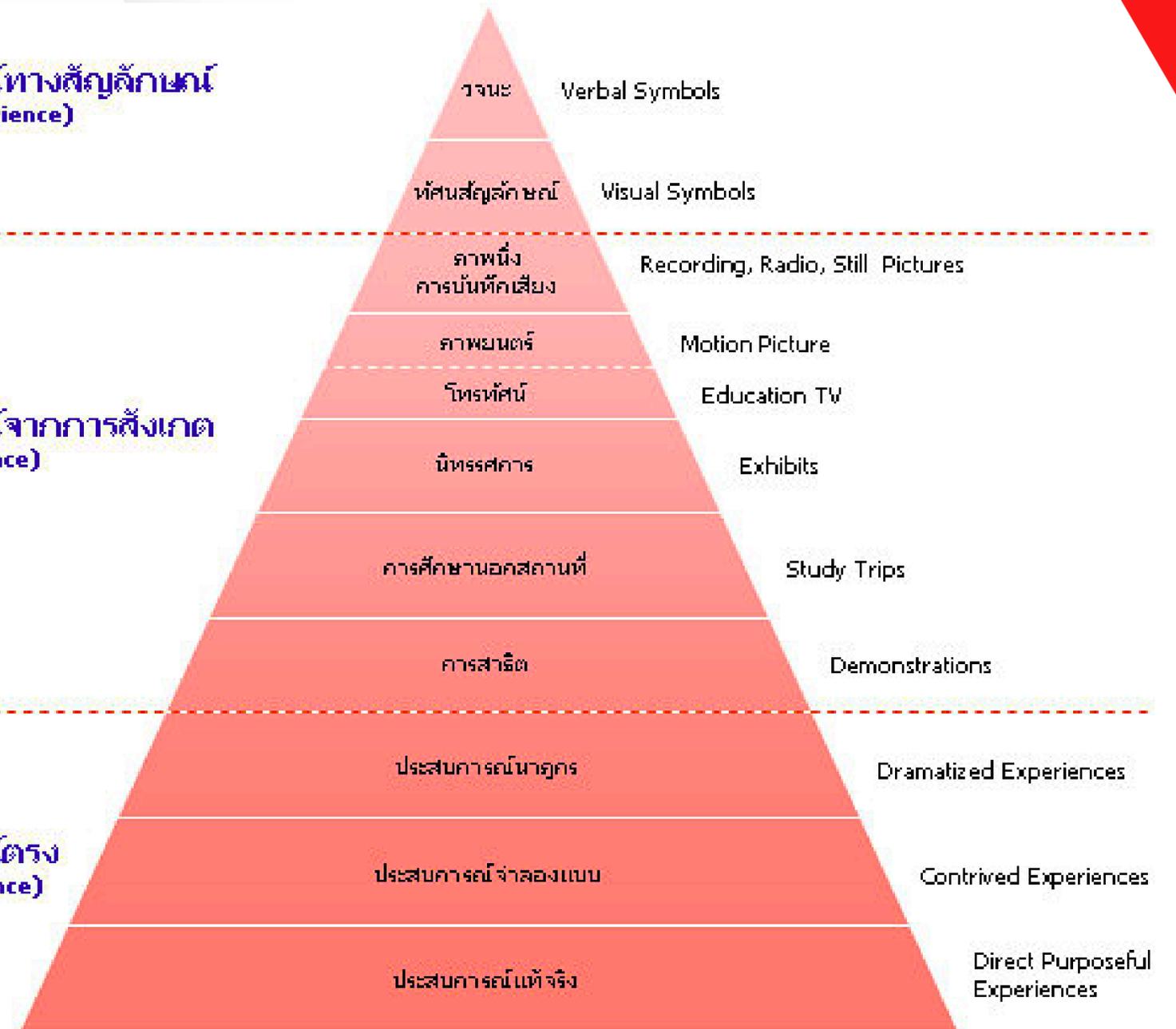
Learning through observation

Learning through doing

ประสบการณ์ทางสัญลักษณ์
(Symbolic Experience)

ประสบการณ์จากการสังเกต
(Iconic Experience)

ประสบการณ์ตรง
(Direct Experience)



Dale's cone of experience

Learning through doing

- direct, purposeful experiences



<https://www.sjgadget.com/>



<https://intereducation.co.th/product/>



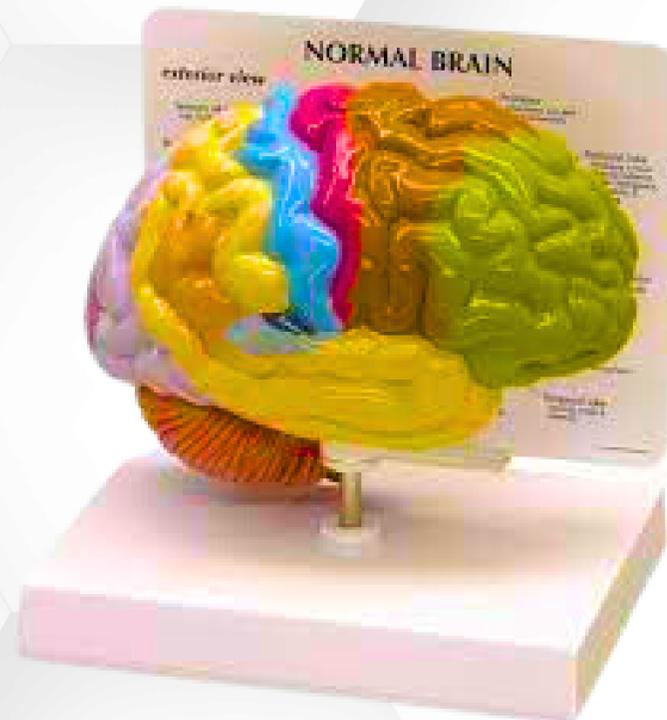
<https://intereducation.co.th/product/>

Learning through doing

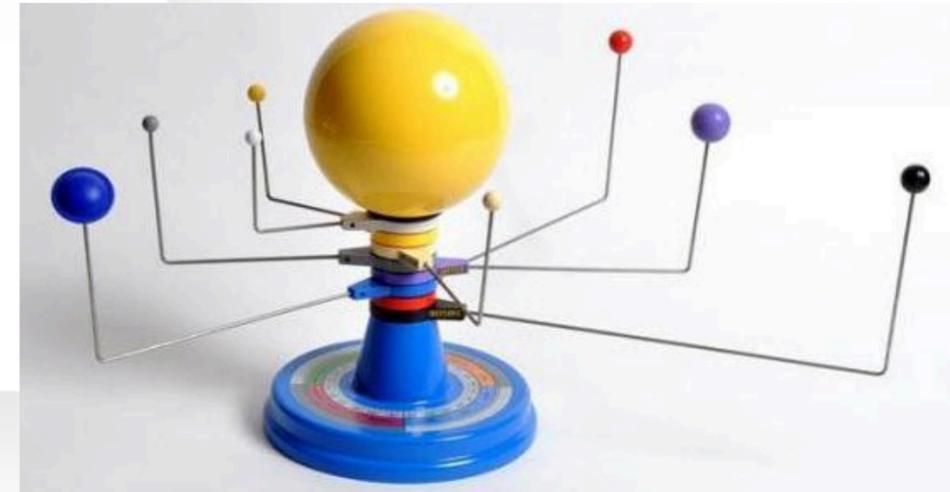
- contrived experience



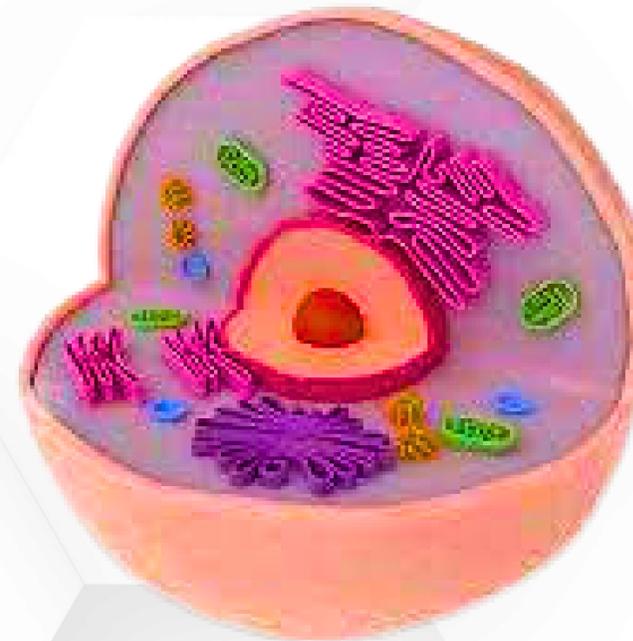
<https://www.indiamart.com/proddetail/the-earth-s-layer-model-bpg001-3890713973.html>



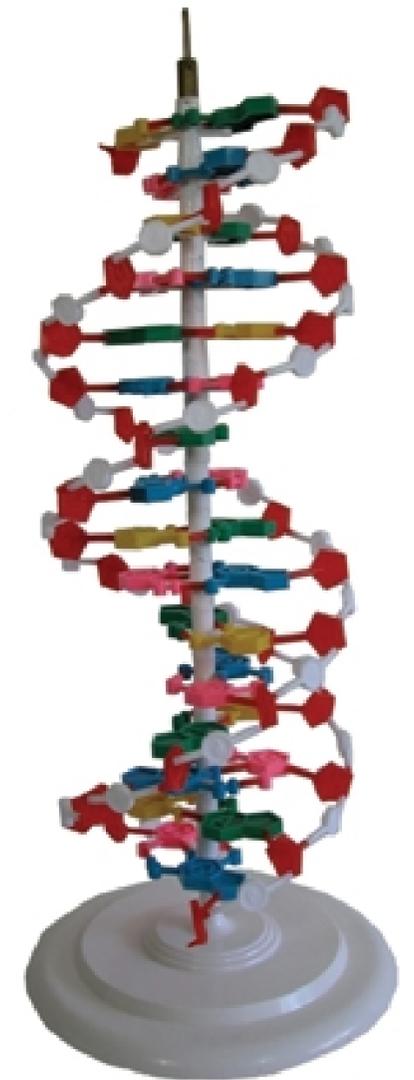
<https://anatomywarehouse.com/half-brain-sensory-and-motor-areas-anatomy-model-a-100804>



<https://th.taylrrenee.com/domashniy-uyut/15428-kak-sdelat-modeli-solnechnoy-sistemy-dva-varianta.html>



<https://www.classvr.com/case-studies/science-digital-cell-models-student-age-6-12/>



<https://shop.sciencefirst.com/human-biology/3227-model-dna.html>

Learning through doing

- Learning through observation

demostrations



<http://blog.bru.ac.th>



<https://edailyreport.dmcr.go.th/milestone/detail/5094>



study trips



<https://edailyreport.dmcr.go.th/milestone/detail/5094>

Learning through doing

- Learning through observation



exhibits

<https://mgroonline.com/qol/detail/9650000079649>



<https://www.blockdit.com/posts/633fff5696e5ba4d8171a57b>



education TV

<https://mgroonline.com/qol/detail/9650000079649>



<http://06550146-04.blogspot.com/2013/>

Learning through doing

- Learning through abstraction



<https://xn--12cfj7e4bj0bcyd1bq6d4n.com/>

Verbal symbols

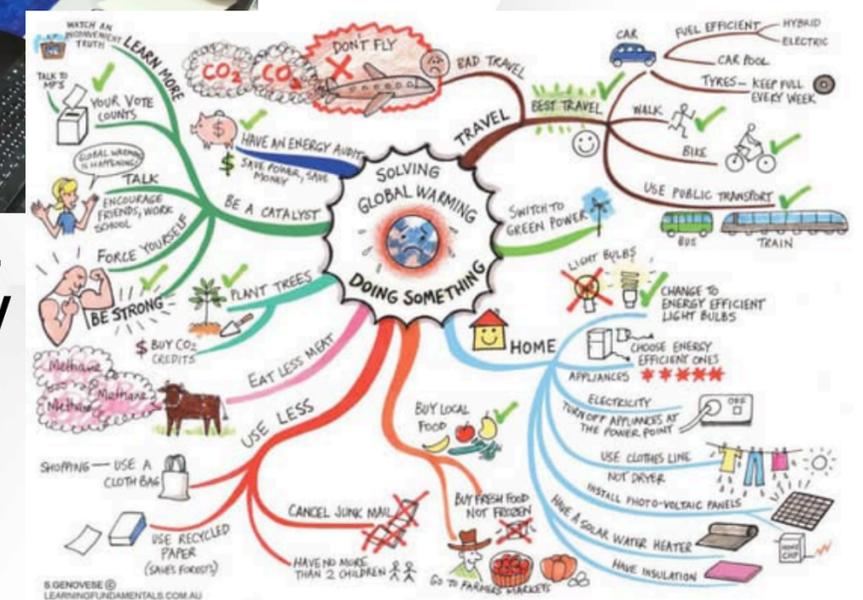


<https://www.isranews.org/content-page/item/69290-news-69290.html>



https://inskru.com/idea/MWD_6t2yWzM8NYUcs6V

Visual symbols



<https://mindmapsunleashed.com/10-really-cool-mind-mapping-examples-you-will-learn-from>

Task: science instruction media

**Assign work in pairs to write lesson plans assembling
the use of science teaching media**

