**Chapter 2 notes**

**Focus on Inquiry**

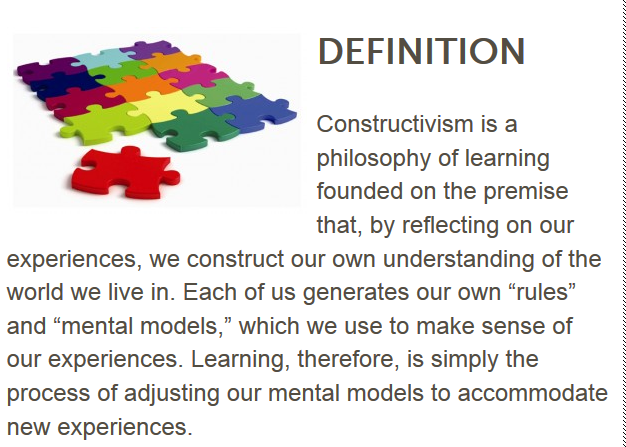
**-hands-on/minds on is the popular way to describe school science**

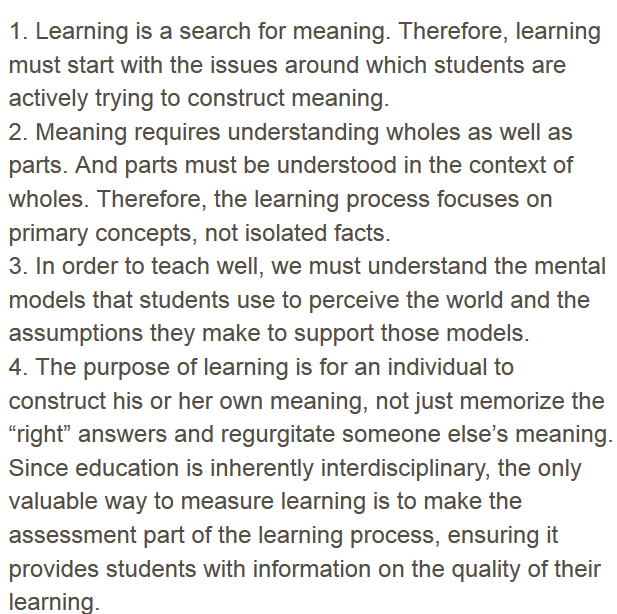
**-problem solving is a way to engage students in constructing their own understanding of science concepts and must be connected to specific science learning goals**

**-scientific knowledge needs to be constructed in interactions in which students and teacher converse verbally, using a shared language during the activity**

**Science learning**

**-current paradigm (commonly excepted viewpoint) for science education is that of the idea of constructivism**





**Foundations for Constructivist Teaching**

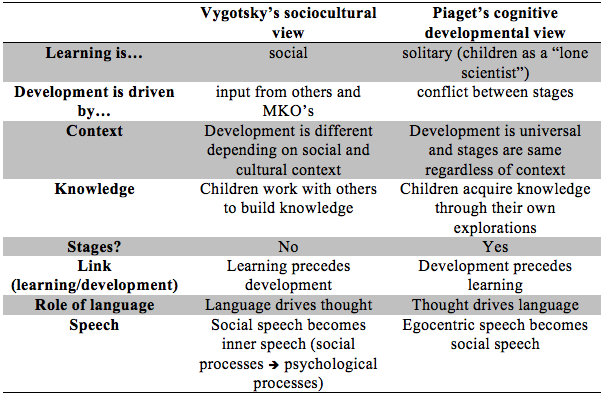
**-Jean Piaget-focused his research on the children’s construction of knowledge through equilibration**

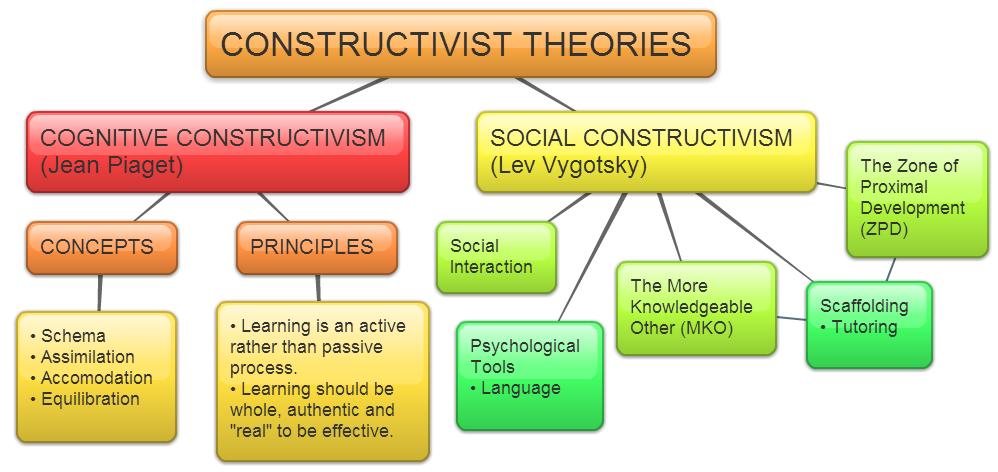
**Equilibration-process by which learner compensates for a mental dilemma and construct new knowledge**

**Schema-cognitive framework used to store and organize information such as knowledge and experiences**

**-for schemata to be effective, they need the capability to be modified to fit new experiences through the process of assimilation and accommodation. We assimilate when we adjust our schemata to include new details, we try to transform incoming information so that it fits with our existing way of thinking. Accommodation means restructuring our schemata so that we can make sense of situations**

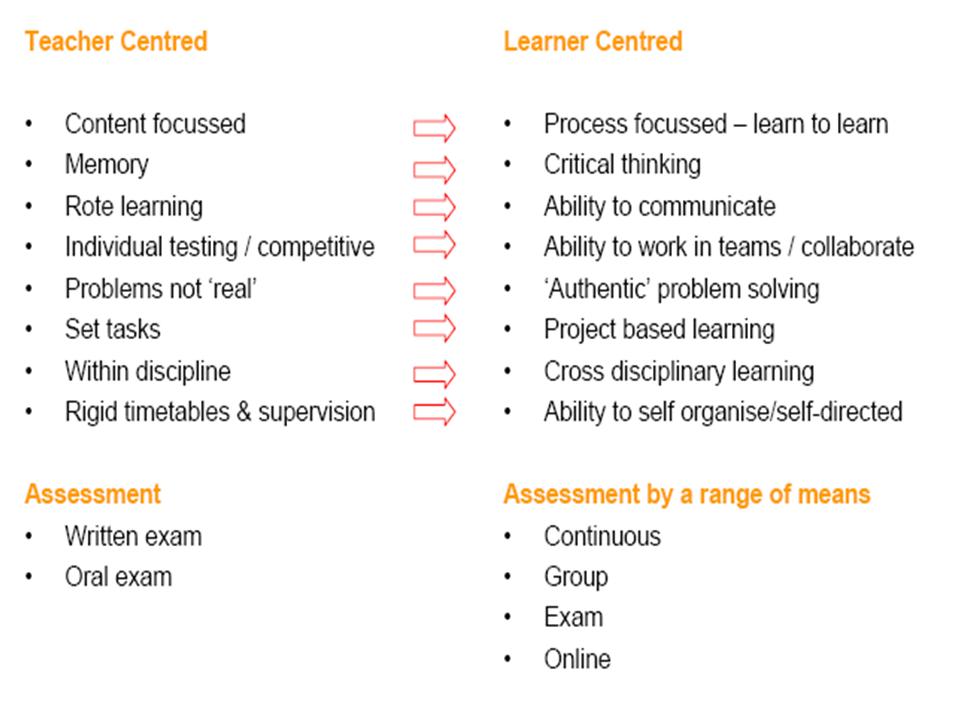
**Lev Vygotsky’s sociocultural constructivist theory involves the role of culture and society. He believed that behavior must be studied in a social and historical context. Children do not simply reproduce what is said or shown to them, rather they undergo socially mediated cognitive constructions.**





**Constructivist learning model**

**-focus on the learner and not the teacher**



**Scaffolding-an adult first structures a learning task and then provides the dialogue needed to guide a child’s successful participation in that task**

