# Thinking and Learning Characteristics of Young People

| | As a thinker | As a learner | Suggested Teaching Strategies |
|---|---|---|---|
| **Primary [K-2]** Aprox. Ages: 6-8 | • Learns through manipulating objects.<br>• Believes what he or she sees.<br>• Can't trace steps back from a conclusion.<br>• Sees parts, not the whole.<br>• Does not understand that making physical changes in an object does not change the amount. | • Is expansive, adventurous, curious, eager to learn, energetic, always in motion, loud, and emotional -- has mood swings.<br>• Wants to please adults.<br>• Has difficulty controlling impulses and regulating behavior.<br>• Is very "me" centered. Seeks attention. Loves praise.<br>• Likes to work in groups, but will need assistance.<br>• Can sit still for 10-15 minutes; needs frequent change-of-pace. | • Making observations.<br>• Simple manipulations.<br>• Pictorial communications.<br>• Simple comparisons. |
| **Upper Elementary [3-5]** Aprox. Ages: 9-11 | • Although still somewhat tied to seeing in order to believe, begins to understand concepts as well as objects.<br>• Understands hierarchical classification systems.<br>• Can combine, sort, multiply, substitute, divide.<br>• Begins to generalize, formulate hypotheses, use systematic problem-solving strategies.<br>• Likes to memorize, to learn facts. | • Understands rules and can follow them.<br>• Likes group activities and excursions. Is a great socializer and is eager to fit in.<br>• Considers fairness to be important.<br>• Takes initiative and is self-motivated.<br>• Is becoming an independent learner.<br>• Avoids opposite sex.<br>• Can sit still and listen 20-30 minutes. (Variety increases attention span.) | • Building relationships.<br>• Using space-time relationships.<br>• Formulating inferences.<br>• Drawing simple conclusions. |
| **Middle School [6-8]** Aprox. Ages: 12-14 | • Can hypothesize, create propositions, and evaluate.<br>• Can conceptualize in the abstract and understand probability.<br>• Begins to understand multiple causation.<br>• Developing understanding of ethical principles. | • Is emotional, restive, and eager to get moving.<br>• Is easily bored.<br>• Challenges rules, routines, and authority.<br>• Is beginning to have an interest in the opposite sex.<br>• Is typically more oriented to small group activity.<br>• Has a vulnerable ego, is very self-conscious and concerned how he/she is perceived by others.<br>• Can handle 30-40 minute sessions. | • Formulating experiments to test hypotheses.<br>• Recognizing and predicting patterns.<br>• Developing models to explain. |

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