

# Interpreting Results from the Iowa Assessments and the Cognitive Abilities Test (CogAT)

A Parent Guide



HOLY SPIRIT  
PREPARATORY SCHOOL

# Overview



- Iowa Assessments measures the extent to which students have mastered specific academic skills focusing on critical thinking, and reasoning compared to peers in their grade.
- Administered annually in the spring to all HSPS Lower School students in Grades K - 6.

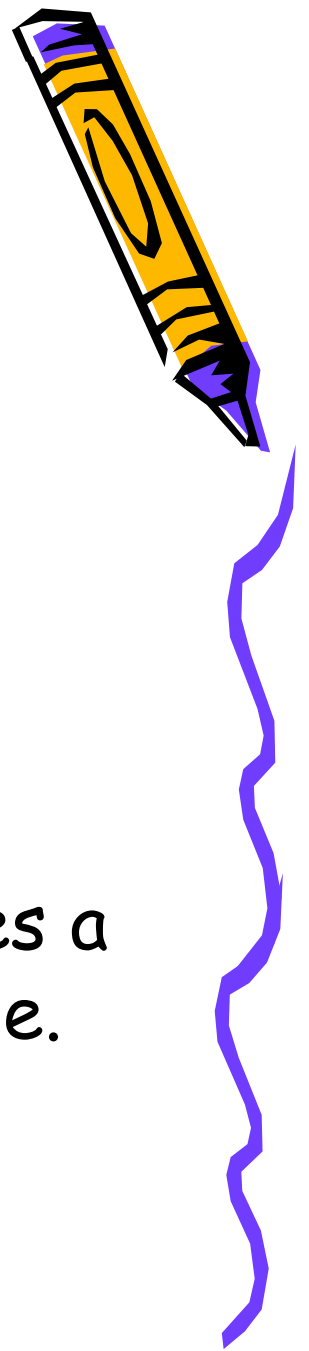


# Overview

- The Cognitive Abilities Test (CogAT) tests Relational Thinking.
- Measures ability in reasoning and problem-solving using verbal, quantitative, and nonverbal (spatial) symbols.
- Measures the pattern & development of learning strategies (How students learn to learn).
- The CogAT is administered to HSPS students only in Grades 2, 4, and 6.



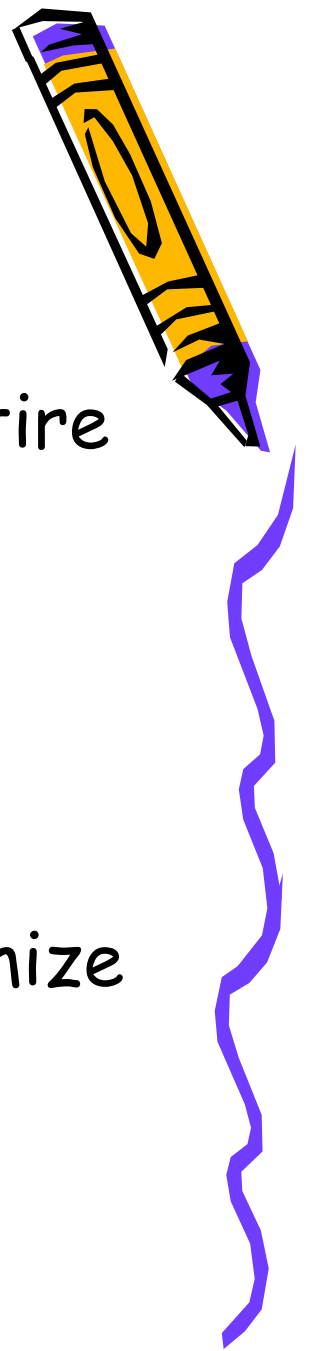
# Overview



- Both tests are "norm-referenced" that compares a student's performance to others who have taken the same test under the same conditions.
- Each test is a "snapshot" which indicates a student's performance at a specific time.



# Why Test?



- To evaluate the effectiveness of an entire instructional program.
- To provide insight into the relative strengths and weaknesses in specific subject areas.
- To allow teachers and school administrators to make appropriate adjustments to the curriculum to maximize student achievement.



# Why Test?

- To report individual student performance to parents...
  - To provide a means of describing a student's developmental level in a given area.
  - To monitor student progress over time.
  - To identify areas for enrichment or remediation in differentiating student instruction.



# Why Test?

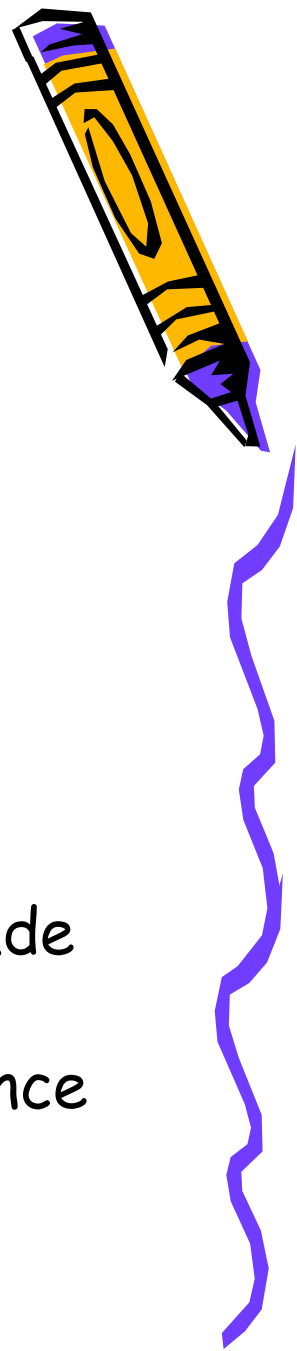


- Results are never used in isolation, but combined with other information (like classroom performance).
- Teachers determine whether test data reflects a student's classroom performance.



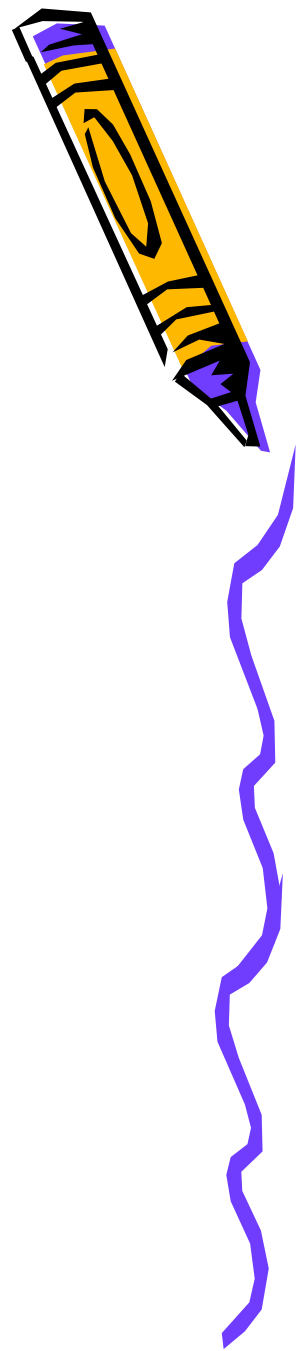
# Iowa Assessment Measures Reported

- SS- Standard Score
- GE- Grade Equivalent
- NPR- National Percentile Rank
- NS- National Stanine
- NCE- Normal Curve Equivalent
- PRIVPR- Private School Percentile Rank
- PGE/GE/DIFF- Predicted Grade Equivalent/Grade Equivalent/Difference
- PNPR/NPR/DIFF- Predicted NPR/NPR/Difference





# CogAT Measures Reported

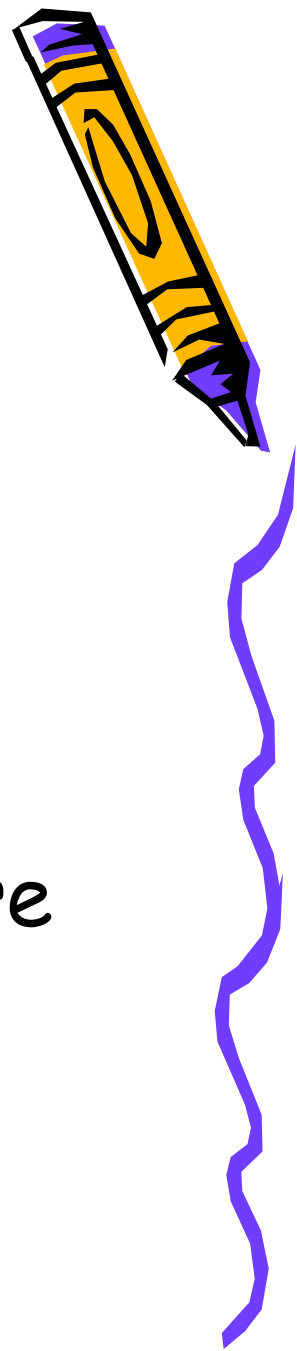


- RS- Raw Score
- USS- Universal Standard Score
- SAS- Standard Age Score
- APR- Age Percentile Rank
- AS- Age Score
- GPS- Grade Percentile Rank
- GS- Grade Score
- LPR- Local Percentile Rank
- LS- Local Stanine



# Standard Score (SS)

- A single score that spans the K-6 continuum of possible scores.
- SS do not have equal intervals for each grade level.
- SS are used create the other score measures on the report.



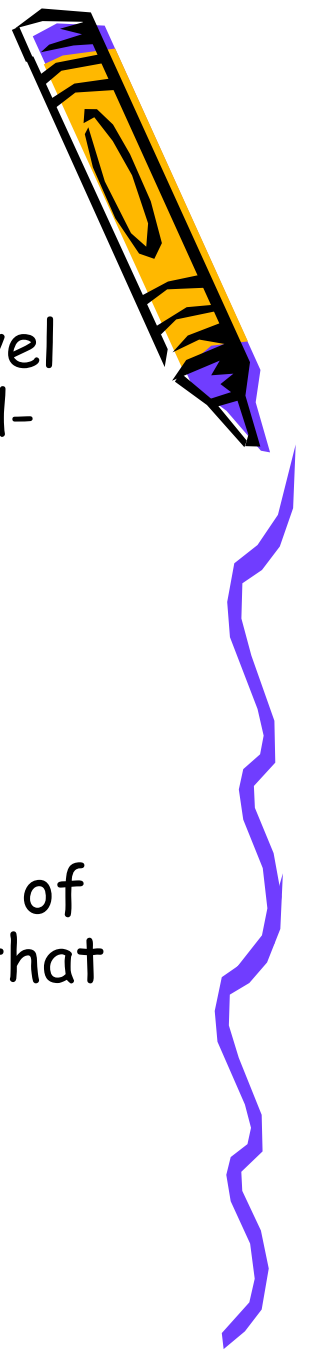
# "Predicted" Standard Scores (PSS)



- Suggest how a child may be expected to perform on Iowa Assessments based on CogAT performance.
- Limitations:
  - Scores may be inaccurate if the student had a bad day during CogAT administration (e.g. 1<sup>st</sup> grade, when administered for the 1<sup>st</sup> time).
  - CogAT predictions are not perfect.
  - For very bright students, this test loses its ability to predict because of "ceiling effect".



# Grade Equivalent (GE)



- A decimal number that indicates the grade level and the months (e.g. 3.2 would indicate a third-grade level in the second month).
- GE's indicate what the average student in the indicated level would achieve.
- GE scores do not reveal the instructional level of a student or group of students. (Some think that this is the function of the GE score.)



# GE-Example



- Example: My 5<sup>th</sup> grade child received a 7.3 GE in Science.
- This indicates that she correctly answered the same number of items as the average 7<sup>th</sup> grader in the third month of the school year.
- It does not mean the 5<sup>th</sup> grader can do 7<sup>th</sup> grade fifth month material.
- Are simply a representation of *number* of items correct, not the *difficulty* (or *grade level*) of items correct.



# Using Grade Equivalents



- Limitations of GE's
  - Does *not* indicate the grade level at which a student should be *placed* or is *successful*.
    - For example, a 6<sup>th</sup> grader can score a GE of 13.0 in math, yet s/he is not ready for college calculus
    - Are inappropriate measures to *diagnose areas of relative strength and weakness*.
    - Are simply a representation of *number* of items correct, not the *difficulty* (or *grade level*) of items correct.



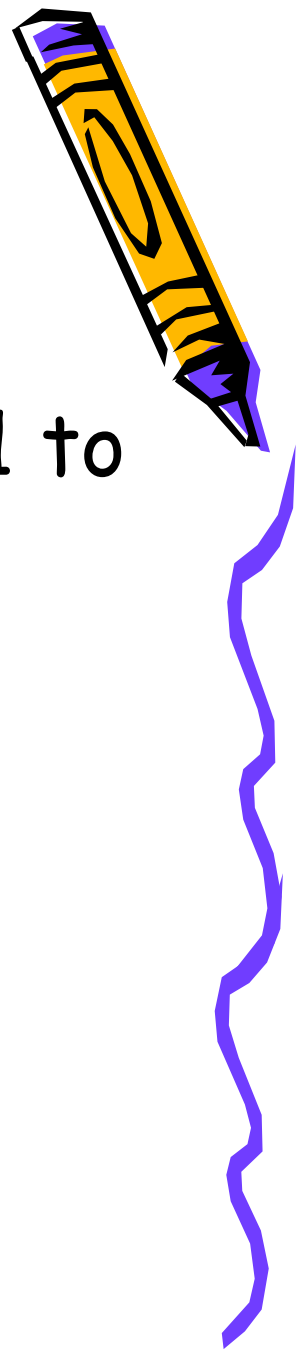
# Using NPR's is the Best Approach to Interpreting Student Scores



- National Percentile Rank (NPR) - how student compares to ALL children who took the test.
- Checking progress from one year to the next for students above the 50<sup>th</sup> NPR.
- Remember, this test score is one piece of information. It's a *snapshot*, not a video!
  - Teachers always do a "reality check" to see if the student's Iowa Assessment performance is congruent with what they see in class on a daily basis.



# National Percentile Ranking (NPR) or (PR)



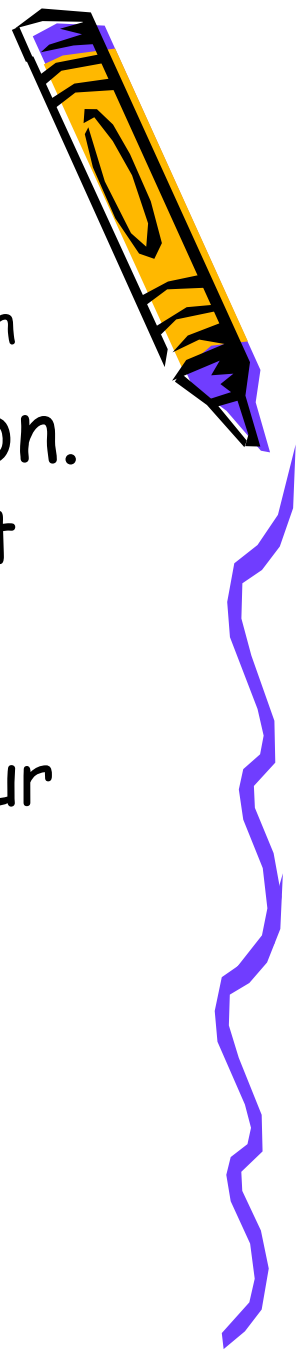
- This is an indication ranging from 1 to 99 showing what "percentile" your child's score corresponds to in relation to others taking the same test.
- This is not the percent correct.



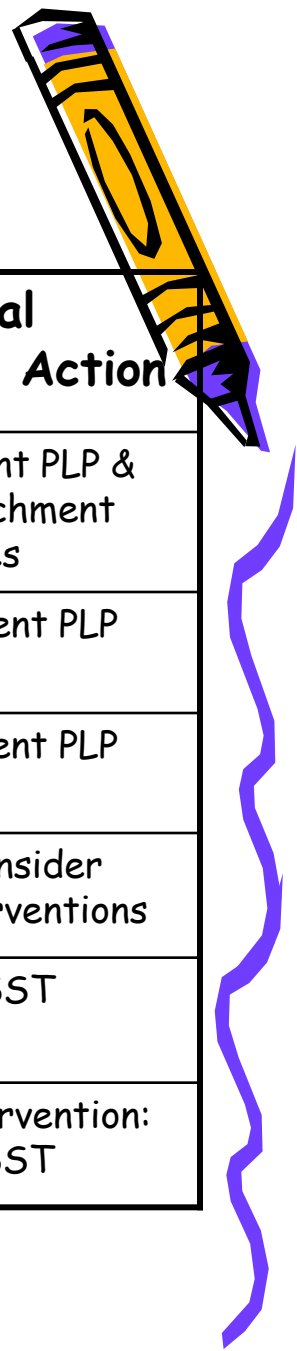


# NPR - Example

- My 4<sup>th</sup> grade son scored in the 89<sup>th</sup> percentile in Reading Comprehension.
  - This means that approximately 88 out of every 100 students' scores were lower, and about 11 of every 100 students' scores were higher than your child's score.



# (NPR) Consideration for Percentile Ranks



Percentile Ranges	Classification	Potential Instructional Action
Above the 90 <sup>th</sup> Percentile	Well Above Average Nationally	Continue Current PLP & Consider Enrichment Activities
Between the 75 <sup>th</sup> -90 <sup>th</sup> Percentiles	Above Average Nationally	Continue Current PLP
Between the 50 <sup>th</sup> - 75 <sup>th</sup> Percentiles	Average Nationally	Continue Current PLP
Between the 25 <sup>th</sup> -50 <sup>th</sup> Percentiles	Average Nationally	Monitor & Consider Classroom Interventions
Between the 10 <sup>th</sup> -25 <sup>th</sup> Percentiles	Below Average Nationally	Consider SST
Below the 10 <sup>th</sup> Percentile	Well Below Average Nationally	Immediate Intervention: Refer to SST



# Stanine Scores



- Stanine scores show a student's relative position in a group of students who took the same test at the same time of year nationally.
- The standard nine stanine method ranges from a low of 1 to a high of 9 and have an average value of 5;
  - » 7, 8, or 9 is Above Average Nationally
  - » 4, 5, or 6 is Average Nationally
  - » 1, 2, or 3 is Below Average Nationally
- These are less precise indicators than the detailed NPR's as fluctuations in performance may be too small to change the stanine score.
- Stanines are a convenient way to identify areas of strength and weakness in a set of test scores.



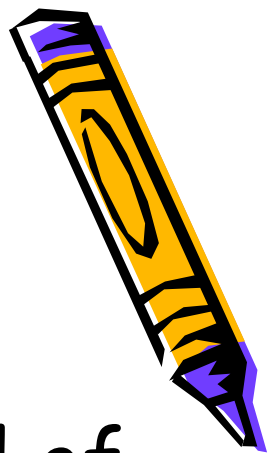
# Stanine- Example

- My 6<sup>th</sup> grade son received a stanine score of 6 in his Math Total score.
  - This means that out of the group of students that took the same test he performed within the average, but at the high end of the average.

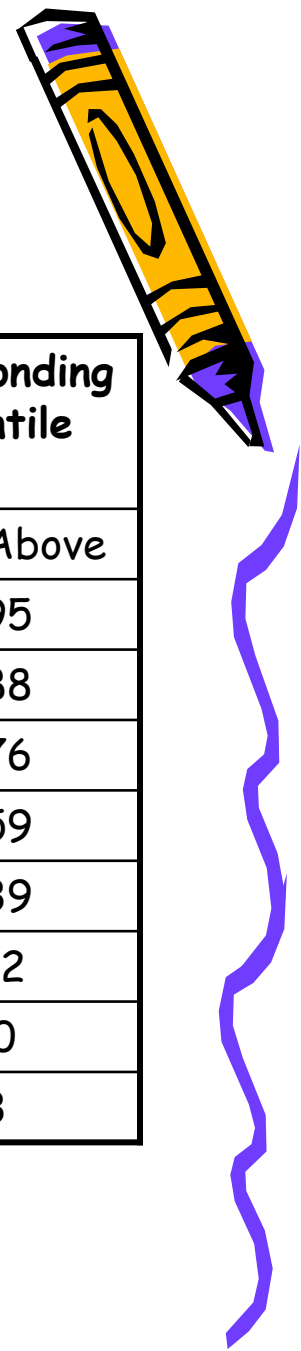


# Standard Age Score (SAS)

- SAS- Describes the rate and level of cognitive development; the mean equals 100 with a standard deviation of 16. A student with a SAS of 100 has a rate and level of development that is typical for his/her age.



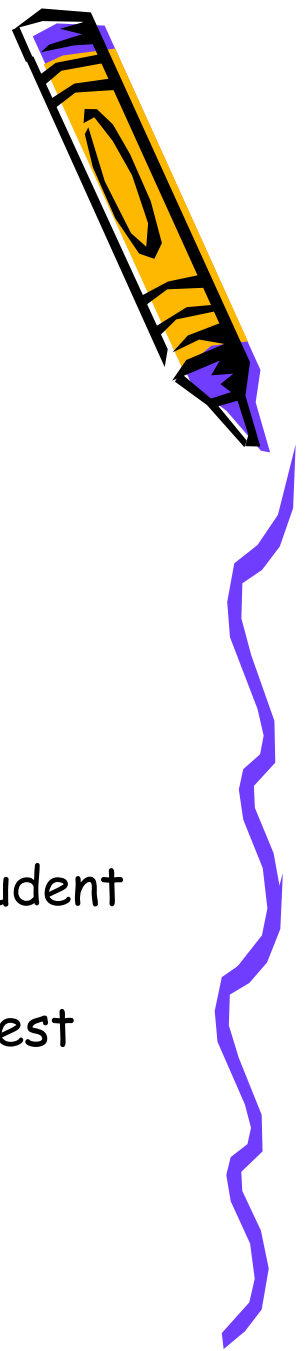
# Generalized Interchangeability of Normative Scores



Stanine	Verbal Description	Percentage of Cases in Stanine	Corresponding SAS	Corresponding Percentile
9	Very High	4%	128 and Above	96 and Above
8	Above Average	7%	120-127	89-95
7	Above Average	12%	112-119	77-88
6	Average	17%	104-111	60-76
5	Average	20%	96-103	40-59
4	Low Average	17%	88-95	23-39
3	Below Average	12%	80-87	11-22
2	Below Average	7%	72-79	4-10
1	Very Low	4%	71 and Below	0-3



# How are the tests used at HSPS to improve learning for each individual student?



- The tests are used to identify areas of opportunity in planning for:
  - Differentiated Instruction
  - Curriculum Improvements and Enhancements.
  - Inclusion of more hands-on activities to enhance student learning.
  - Providing targeted instruction to address the greatest needs.



# How is HSPS Evaluating School Wide Achievement Results?

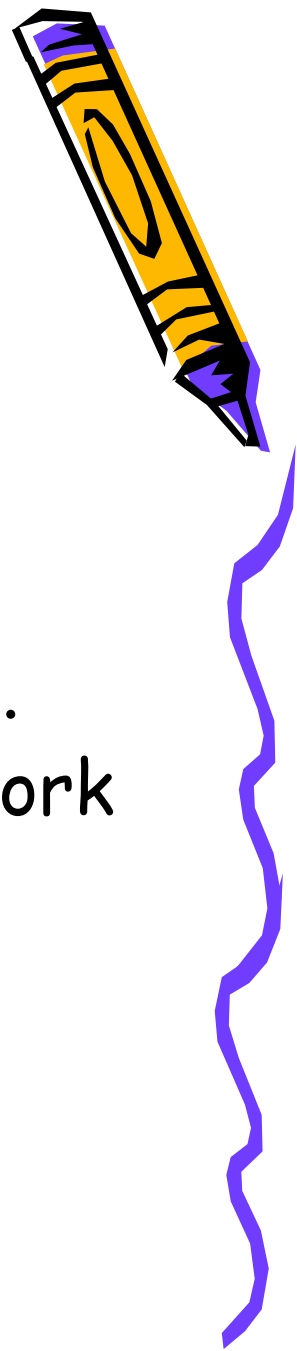


- A profile of year-to-year results by class is built to ensure that we are evaluating long term longitudinal data:
  - Targeting at least 12 months year-to-year growth by subject.
  - Providing staff with an in-depth look at long term curriculum opportunities for improvement and enhancement.
  - Researching opportunities for activities to enhance classroom dynamics that empower group learning.





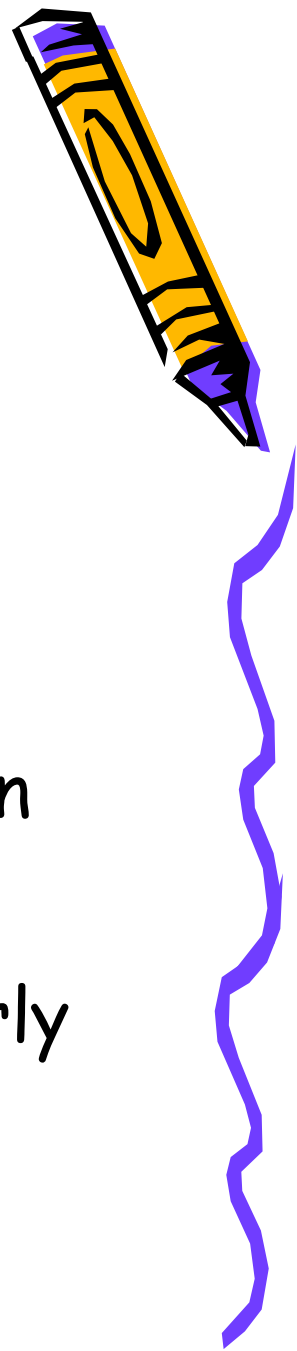
# How Can I Help At Home?



- Understand your child's academic strengths and opportunities for improvement.
- Be informed about what is being taught.
- Monitor your child's progress on homework and tests.
- Work with your child's teacher to determine areas of additional focus.



# How Can I Help At Home?



- Provide additional help with homework when recommended.
- Provide or secure additional teacher resources and/or extra exercises for growth that address areas of concern in your child's academic performance.
- Monitor your child's grades, and regularly view progress through Edline.

