

*SKILLS LIST and SAMPLE ITEMS FOR*

**PRACTICE TEST, SCIENCE, GRADE 8**

(Test items developed for skills measured in TERRA NOVA [CTBS]\*)

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*Skills*

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|-----|--|-----|--|
| 1.0 | Fundamental Concepts   | 5.0 | Science and Technology                                     |
| 1.1 | Understanding of the<br>Fundamental Concepts of<br>Science Inquiry   | 5.1 | Understanding of How<br>Technology and Science<br>Interact |
| 2.0 | Physical Science   | 6.0 | Personal and Social Perspec-<br>tives in Science           |
| 2.1 | Fundamental Concepts and<br>Principles of Physical<br>Science        | 6.1 | Personal and Social Issues                                 |
| 2.2 | Light/Heat/Electricity   | 7.0 | Thinking Skills  |
| 3.0 | Life Science   | 7.1 | Generate Ideas   |
| 3.1 | Fundamental Concepts and<br>Principles                               | 7.2 | Gather Information   |
| 3.2 | Apply Principles   | 7.3 | Organize Information                                       |
| 4.0 | Earth and Space Science  | 7.4 | Analyze Information  |
| 4.1 | Fundamental Concepts and<br>Principles of Earth and<br>Space Science | 7.5 | Synthesize Elements  |
|     |  | 7.6 | Evaluate Income  |
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Number of questions: 40  
Number of pages: 13  
Approximate testing time: 40 minutes  
CTBS and CAT are parallel tests

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## Terra Nova PRACTICE TEST IN SCIENCE - GRADE 8

Directions: Use the information below and the graph to answer Numbers 1 and 2.

A student had three pet animals--a hamster, a mouse, and a rat--each kept in a separate cage. While caring for his animals, the student became interested in the amount of daily activity shown by each animal. He decided to use meters to measure how many times each animal rotated (turned) his exercise wheel. The student connected a meter to each of the three exercise wheels and read the meter on each wheel every day for five days. His results are shown on the graph below.

Day	Rotations of Exercise Wheel		
	Hamster	Mouse	Rat
1	98	104	33
2	84	114	24
3	92	110	30
4	64	94	26
5	72	88	22
Total	410	510	135
Average	82	102	27

- Which animal showed the greatest change in activity over the five-day period?
    - mouse
    - hamster
    - rat
    - no animal showed a change in activity
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- What observation can you make about the rat's activities over the five-day period?
    - The rat showed less activity and less variation in the amount of activity than the other two animals.
    - The rat showed more activity than the hamster and less variation of activity than the mouse.
    - The rat showed the same amount of activity as the hamster.
    - The rat showed a greater variation of activity than the mouse or the hamster.
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