Grade 8 Tier 1 - *Emerging*

*An eighth-grade Tier 1 student performing at the **Emerging** Level demonstrates a growing academic awareness of some of the basic skills and concepts outlined by the Alternate Eligible Content in at least one of the Pennsylvania Science Reporting Categories.*

Students performing at this level demonstrate these abilities by
- ✓ matching different environments with their characteristics
- ✓ matching familiar technologies with their uses

Grade 8 Tier 1 - *Novice*

*An eighth-grade Tier 1 student performing at the **Novice** Level demonstrates a growing academic awareness of the basic skills and concepts outlined by the Alternate Eligible Content in at least two of the Pennsylvania Science Reporting Categories.*

In addition to the skills demonstrated by students performing at the *Emerging* Level, students performing at this level demonstrate these abilities by
- ✓ identifying a specified relationship based on observations given
- ✓ identifying components of human-made systems by their function
- ✓ recognizing the structures of animals that allow them to survive in their environment

Grade 8 Tier 1 - *Proficient*

*An eighth-grade Tier 1 student performing at the **Proficient** Level solves simple tasks and demonstrates progressing academic awareness of most of the basic skills, concepts and vocabulary outlined by the Alternate Eligible Content in at least three of the Pennsylvania Science Reporting Categories.*

In addition to the skills demonstrated by students performing at the *Novice* Level, students performing at this level demonstrate these abilities by
- ✓ selecting measuring tools with the appropriate units to solve tasks
- ✓ identifying predator and prey relationships
- ✓ matching human activities with their impact on plants and animals
- ✓ recognizing recycling as a waste management technique
- ✓ identifying the source of a group of products

Grade 8 Tier 1 - *Advanced*

*An eighth-grade Tier 1 student performing at the **Advanced** Level solves routine tasks and demonstrates consistent academic awareness of the basic and some complex skills, concepts and vocabulary outlined by the Alternate Eligible Content across all four Pennsylvania Science Reporting Categories.*

In addition to the skills demonstrated by students performing at the *Novice* and *Proficient* Levels, students performing at this level demonstrate these abilities by
- ✓ sequencing recurring patterns found in nature
- ✓ identifying the effect of changes to stable systems
- ✓ classifying groups of animals based on distinguishing characteristics
- ✓ recognizing the energy flow through a food chain
- ✓ determining the motion of objects based on the forces acting on it
- ✓ recognizing the natural processes that change the Earth's surface