

CHECKLIST FOR SEVENTH GRADE SCIENCE *CHECKS FOR UNDERSTANDING*

✓	date	Checks for Understanding
		Embedded Inquiry
		0707.Inq.1 Design and conduct an open-ended scientific investigation to answer a question that includes a control and appropriate variables.
		0707.Inq.2 Identify tools and techniques needed to gather, organize, analyze, and interpret data collected from a moderately complex scientific investigation.
		0707.Inq.3 Use evidence from a dataset to determine cause and effect relationships that explain a phenomenon.
		0707.Inq.4 Review an experimental design to determine possible sources of bias or error, state alternative explanations, and identify questions for further investigation.
		0707.Inq.5 Design a method to explain the results of an investigation using descriptions, explanations, or models.
		Embedded Technology & Engineering
		0707.T/E.1 Use appropriate tools to test for strength, hardness, and flexibility of materials.
		0707.T/E.2 Apply the engineering design process to construct a prototype that meets certain specifications.
		0707.T/E.3 Explore how the unintended consequences of new technologies can impact society.
		0707.T/E.4 Research bioengineering technologies that advance health and contribute to improvements in our daily lives.
		0707.T/E.5 Develop an adaptive design and test its effectiveness.
		Standard 1 - Cells
		0707.1.1 Examine and describe plant and animal cells using compound microscopes.
		0707.1.2 Identify the function of the major plant and animal cellular organelles.
		0707.1.3 Make a Venn diagram to compare the structures and functions of an animal cell with a city or school.
		0707.1.4 Build a 3-D model of a cell.
		0707.1.5 Construct a poster that illustrates the hierarchy among cells, tissues, organs, organ systems, and organisms.
		0707.1.6 Describe the function of different organ systems.
		0707.1.7 Explain how different organ systems interact to enable complex multicellular organisms to survive.
		0707.1.8 Apply the idea of the division of labor to explain why living things are organized into cells, tissues, organs, and organ systems.
		0707.1.9 Model the movement of chromosomes during plant cell division.
		0707.1.10 Design a demonstration that illustrates how materials move across a semi-permeable membrane by simple diffusion
		Standard 2 - Interdependence <i>Not addressed at this level</i>
		Standard 3 - Flow of Matter and Energy
		0707.3.1 Associate the fundamental processes of photosynthesis and respiration with appropriate cell structures.
		0707.3.2 Examine and identify the chloroplasts in a leaf cell.
		0707.3.3 Identify the materials used by plants to make food.
		0707.3.4 Create a chart that compares the reactants and products of photosynthesis and respiration.
		0707.3.5 Model the pathways of water, oxygen, and carbon dioxide through a plant.
		0707.3.6 Describe the movement of oxygen and carbon dioxide between living things and the environment.
		0707.3.7 Describe structures that animals use to obtain oxygen.

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	Standard 4 - Heredity
	0707.4.1 Classify organisms according to whether they reproduce sexually or asexually.
	0707.4.2 Label and explain the function of the reproductive parts of a flower.
	0707.4.3 Describe various methods of plant pollination.
	0707.4.4 Investigate the relationship among DNA, genes, and chromosomes.
	0707.4.5 Explain the differences between dominant and recessive traits.
	0707.4.6 Use a Punnett square to predict the genotypes of offspring resulting from a monohybrid cross.
	0707.4.7 Draw a phenotypically accurate picture of an individual whose traits are modeled by the role of a die.
	Standard 5 - Biodiversity and Change <i>Not addressed at this level</i>
	Standard 6 - The Universe <i>Not addressed at this level</i>
	Standard 7 – The Earth
	0707.7.1 Organize and explain information about the properties of minerals and their uses.
	0707.7.2 Label a diagram that depicts the major processes of the rock cycle.
	0707.7.3 Distinguish among sedimentary, igneous, and metamorphic rocks and relate these to a simple diagram of the rock cycle.
	0707.7.4 Recognize that the earth's layers have different thickness, states of matter, densities, and chemical makeup.
	0707.7.5 Analyze the relationship between plate movements and areas of earthquake activity.
	0707.7.6 Analyze the relationship between plate movements and mountain building.
	0707.7.7 Analyze the relationship between plate movements, volcanoes, and sea floor spreading.
	0707.7.8 Determine the impact of man's use of renewable and nonrenewable resources on future supplies.
	0707.7.9 Evaluate how human activities affect the condition of the earth's land, water, and atmosphere.
	Standard 8 - The Atmosphere <i>Not addressed at this level</i>
	Standard 9 – Matter <i>Not addressed at this level</i>
	Standard 10 – Energy <i>Not addressed at this level</i>
	Standard 11 – Motion
	0707.11.1 Compare the six types of simple machines.
	0707.11.2 Compete an investigation to determine how machines reduce the amount of force needed to do work.
	0707.11.3 Summarize the difference between the speed and velocity based on the distance and amount of time traveled.
	0707.11.4 Recognize how a net force impacts an object's motion.
	0707.11.5 Create a graphic organizer to illustrate and describe the basic parts of a wave.
	0707.11.6 Compare how transverse and longitudinal waves are produced and transmitted.
	Standard 12 - Forces in Nature <i>Not addressed at this level</i>