

**DCSD Instructional Planning  
Instrument  
Focus on Teaching and  
Learning  
Weekly Lesson**

**Section A: Strategies & Tasks**

Check the appropriate box to indicate the inclusion of the task and/or strategies for the weekly lesson plan.

STRATEGIES/TASKS	YES	NO	STRATEGIES/TASKS	YES	NO	STRATEGIES/TASKS	Y S E	NO
DCSD Unit Task	<input type="checkbox"/>	<input type="checkbox"/>	Interdisciplinary Integration	<input type="checkbox"/>	<input type="checkbox"/>	Differentiated Instruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>
GADOE Task/Activity/Resource	<input type="checkbox"/>	<input type="checkbox"/>	Intervention Strategies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21 <sup>st</sup> Century Learning Skills	<input checked="" type="checkbox"/>	<input type="checkbox"/>
STEM/STEAM Integration	<input type="checkbox"/>	<input type="checkbox"/>	Gifted-Extensions for Learning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Research-Based Instructional Strategies	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Section B: Unit & Standards Alignment**

Provide information that gives an overview of the weekly focus.

<b>School:</b>	Tucker Middle School
<b>Teacher/Co-Teacher/Para:</b>	Manning
<b>Grade/Subject/Course:</b>	7 <sup>th</sup> Life Science
<b>Week of:</b>	
<b>Unit #, Name, and Pacing:</b>	Unit 2: Heredity: It's in the Genes, 6 Weeks
<b>FOR THE WEEK</b>	<p><b>Science:</b> S7L3. Obtain, evaluate, and communicate information to explain how organisms reproduce either sexually or asexually and transfer genetic information to determine the traits of their offspring. b. Develop and use a model to describe how asexual reproduction can result in offspring with identical genetic information while sexual reproduction results in genetic variation.</p> <p><i>(Clarification statement: Models could include, but are not limited to, the use of monohybrid Punnett squares to demonstrate the heritability of genes and the resulting genetic variation, identification of heterozygous and homozygous, and comparison of genotype vs. phenotype.)</i></p> <p><b>Math:</b> MGSE7.SP.7 Develop a probability model and use it to find probabilities of events. Compare experimental and theoretical probabilities of events. If the probabilities are not close, explain possible sources of the discrepancy. MGSE7.SP.7a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.</p>

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<p><b>Supporting Standard(s):</b> <i>(Content specific)</i></p>	<p>a. Construct an explanation supported with scientific evidence of the role of genes and chromosomes in the process of inheriting a specific trait.</p> <p>c. Ask questions to gather and synthesize information about the ways humans influence the inheritance of desired traits in organisms through selective breeding.</p> <p><i>(Clarification statement: The element specifically addresses artificial selection and the ways in which it is fundamentally different from natural selection.)</i></p>
<p><b>Non-Content Standard(s):</b> <i>(WIDA, Interdisciplinary, Literacy)</i></p>	<p><b>Language Arts:</b>  <b>ELAGSE7W1:</b> Write arguments to support claims with clear reasons and relevant evidence.  <b>ELAGSE7SL4:</b> Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p>
<p><b>Statement of Inquiry:</b></p> <p><b>Essential Question(s):</b> <i>(Address philosophical foundations; contain multiple answers; provoke inquiry)</i></p>	<p>Scientific evidence is used to communicate and express concepts that form personal and societal understandings about our world.</p> <p>-Heredity:</p> <ol style="list-style-type: none"> <li>1. What is the role of genes and chromosomes in the process of inheriting a specific trait?</li> <li>2. How does asexual reproduction result in offspring with identical genetic information whereas sexual reproduction result in genetic variation?</li> <li>3. How do humans influence the inheritance of desired traits in organisms through selective breeding or artificial selection?</li> </ol>
<p><b>Key and Related Concepts</b> <i>(Big Ideas)</i> <i>(Concepts or principles central to the lesson that anchor all of the smaller ideas in a lesson)</i></p>	<ol style="list-style-type: none"> <li>1. Patterns</li> <li>2. Cause &amp; Effect</li> <li>3. Structure and Function</li> <li>4. Stability and Change</li> </ol>

**Section C: Instructional Framework**

Identify the strategies from Section A that will be implemented within the daily instructional framework. List the specific strategies as provided on the strategy chart found at the end of the DCSD Instructional Planning Instrument.

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Daily Lesson Plan for Monday		Assessment Evidence
<b>Learning Target/Success Criteria</b> <i>(Where are students going? How will they get there?)</i>	<p><b>Learning Target:</b> Today I will learn how to use Punnett squares to predict inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction.</p> <p><b>Success Criteria:</b> I will know I have got it when I can differentiate between inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction while using Punnett squares to make predictions.</p>	<p><i>Note: A variety of formative assessments should be used at key points throughout the lesson.</i></p>
<b>IB Learner Profile(s) (What learner profile will be the focus of this Lesson?)</b>	Inquirers, Knowledgeable, Thinkers, Communicators	Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-minded, Caring, Risk-takers, Balanced, Reflective
<b>IB Approaches to Learning (ATL) (Which skills will be used to empower students as self-directed learners?)</b>	Communication, Social, Self Management, and Thinking.	<p><b>Communication :</b> Communication</p> <p><b>Social:</b> Collaboration</p> <p><b>Self Management:</b> Organization, Affective, Reflection</p> <p><b>Research:</b> Information Literacy, Media Literacy</p> <p><b>Thinking:</b> Critical Thinking, Creativity and Innovation, Transfer</p>
<b>IB MYP Global Context (Which Global Context will be used to promote multilingualism, intercultural understanding and global engagement?)</b>	Scientific and Technical Innovation	Identities and relationships, Orientation in time and space, personal and cultural expression, scientific and technical innovation, globalization and sustainability, fairness and development.
<b>Pre-Instructional Activity</b> <i>(Sponge; bell-ringer; journal; allows attendance to be taken)</i>	Do Now	

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<p><b>Opening (ENGAGE)</b> <i>(Introduce the lesson; summarizes previous lesson; clarifies misconceptions)</i></p>	<p>GCSE Biology - Gregor Mendel and the History of Genetics #84 <a href="#">video</a></p>	
<p><b>Work Period (EXPLORE/EXPLAIN EXTEND/ELABORATE)</b> <i>(Allows students to practice concept; assesses student learning)</i></p>	<p>-SpongeBob Punnett Square Practice w/ mini-lesson on Probability to show interdisciplinary connection to 7<sup>th</sup> grade Math standards</p>	<p>Strategic Questioning</p>
<p><b>Closing (EVALUATE)</b> <i>(Summarizes lesson; ensures understanding; clarifies misconceptions)</i></p>	<p>Genetics and Heredity Vocabulary (page 2/back)</p>	<p>Strategic Questioning</p>
<p><b>Resources/Instructional Materials</b> <i>(What do I need in order to teach the lesson?)</i></p>	<p>Audio visual/Technology</p>	
<p><b>Daily Lesson Plan for Tuesday</b></p>		<p><b>Assessment Evidence</b></p>
<p><b>Learning Target/Success Criteria:</b></p>	<p><b>Learning Target:</b> Today I will learn how to use Punnett squares to predict inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction. <b>Success Criteria:</b> I will know I have got it when I can differentiate between inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction while using Punnett squares to make predictions.</p>	
<p><b>IB Learner Profile(s)</b></p>	<p>Inquirers, Knowledgeable, Thinkers, Communicators, Reflective</p>	
<p><b>IB Approaches to Learning (ATL)</b></p>	<p>Communication, Social, Self Management, and Thinking.</p>	
<p><b>IB MYP Global Context</b></p>	<p>Scientific and Technical Innovation</p>	
<p><b>Pre-Instructional Activity</b></p>	<p>Do Now</p>	
<p><b>Opening (ENGAGE)</b></p>	<p>GCSE Biology - Gregor Mendel and the History of Genetics #84 <a href="#">video</a></p>	

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<b>Work Period (EXPLORE/EXPLAIN EXTEND/ELABORATE)</b>	-SpongeBob Punnett Square Practice w/ mini-lesson on Probability to show interdisciplinary connection to 7 <sup>th</sup> grade Math standards	Strategic Questioning
<b>Closing (EVALUATE)</b>	Genetics and Heredity Vocabulary (page 2/back)	
<b>Resources/Instructional Materials</b>	<a href="#">Audio visual/Technology</a> <a href="#">Books/Lab Materials</a> <a href="#">Manipulatives/Tools</a>	
<b>Daily Lesson Plan for Wednesday</b>		<b>Assessment Evidence</b>
<b>Learning Target/Success Criteria:</b>	<p><b>Learning Target:</b> Today I will learn how to use Punnett squares to predict inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction.</p> <p><b>Success Criteria:</b> I will know I have got it when I can differentiate between inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction while using Punnett squares to make predictions.</p>	
<b>IB Learner Profile(s)</b>	Inquirers, Knowledgeable, Thinkers, Communicators	
<b>IB Approaches to Learning (ATL)</b>	Communication, Social, Self Management, and Thinking.	
<b>IB MYP Global Context</b>	Scientific and Technical Innovation	
<b>Pre-Instructional Activity</b>	Do Now	
<b>Opening (ENGAGE)</b>	Review of Genetics/Heredity Terms & Concepts	
<b>Work Period (EXPLORE/EXPLAIN EXTEND/ELABORATE)</b>	Pipe Cleaner-Designer Babies Interdisciplinary Lesson	Strategic Questioning
<b>Closing (EVALUATE)</b>	Student Survey of Understanding from Interdisciplinary Lesson	Think-Pair-Share
<b>Resources/Instructional Materials</b>	<a href="#">Audio visual/Technology</a> <a href="#">Books/Lab Materials</a> <a href="#">Manipulatives/Tools</a>	
<b>Daily Lesson Plan for Thursday</b>		<b>Assessment Evidence</b>

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<b>Learning Target/Success Criteria:</b>	<p><b><u>Learning Target:</u></b> Today I will learn how to use Punnett squares to predict inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction.</p> <p><b><u>Success Criteria:</u></b> I will know I have got it when I can differentiate between inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction while using Punnett squares to make predictions.</p>	
<b>IB Learner Profile(s)</b>	Inquirers, Knowledgeable, Thinkers, Communicators	
<b>IB Approaches to Learning (ATL)</b>	Communication, Social, Self Management, and Thinking.	
<b>IB MYP Global Context</b>	Scientific and Technical Innovation	
<b>Pre-Instructional Activity</b>	Do Now	
<b>Opening (ENGAGE)</b>	Review of Genetics/Hereditry Terms & Concepts	
<b>Work Period (EXPLORE/EXPLAIN EXTEND/ELABORATE)</b>	Pipe Cleaner-Designer Babies Interdisciplinary Lesson	Strategic Questioning
<b>Closing (EVALUATE)</b>	Student Survey of Understanding from Interdisciplinary Lesson	Strategic Questioning
<b>Resources/Instructional Materials</b>	<a href="#">Audio visual/Technology</a> <a href="#">Books/Lab Materials</a> <a href="#">Manipulatives/Tools</a>	
<b>Daily Lesson Plan for Friday</b>		<b>Assessment Evidence</b>
<b>Learning Target/Success Criteria:</b>	<p><b><u>Learning Target:</u></b> Today I will learn how to use Punnett squares to predict inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction.</p> <p><b><u>Success Criteria:</u></b> I will know I have got it when I can differentiate between inheritance outcomes of a single or dihybrid cross as a percent, ratio, or fraction while using Punnett squares to make predictions.</p>	
<b>IB Learner Profile(s)</b>	Inquirers, Knowledgeable, Thinkers, Communicators, Reflective	
<b>IB Approaches to Learning (ATL)</b>	Communication, Social, Self Management, and Thinking.	
<b>IB MYP Global Context</b>	Scientific and Technical Innovation	

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<b>Pre-Instructional Activity</b>	Do Now	
<b>Opening (ENGAGE)</b>	How Mendel's pea plants helped us understand genetics <a href="#">video</a>	
<b>Work Period (EXPLORE/EXPLAIN EXTEND/ELABORATE)</b>	Genetics Unit <a href="#">INB</a> (Lesson 2 & 3)	Strategic Questioning
<b>Closing (EVALUATE)</b>	Searching for the Perfect Athlete Teacher read-aloud w/ questions [word document see email-print for teachers only]	Strategic Questioning
<b>Resources/Instructional Materials</b>	<a href="#">Audio visual/Technology</a> <a href="#">Books/Lab Materials</a> <a href="#">Manipulatives/Tools</a>	



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**This page is for informational purposes only as lesson plans are developed. Do not attach this page to the weekly lesson plan.**

<b>Section D: Strategy Chart</b>			
	<b>Opening</b>	<b>Work Period</b>	<b>Closing</b>
<b>Research-Based Instructional Strategies</b> <small>(weekly strategies chosen to guide teaching and learning)</small>	Activate Prior Knowledge Provide Feedback Questioning (Raises questions) Scaffold Instruction Clarify Previous Lesson Create Interest Phenomenon Other...	Facilitate Learning Demonstrate/Model Academic Discussions High-level Questioning Cooperative Learning Independent Learning Interdisciplinary Writing Explain/Apply/Extend concepts and skills Generating and Testing Hypotheses Other...	Summarize Lessons Allow students to assess their own learning Provide Alternative Explanations Quick Write Respond to Essential Questions 3-2-1/K-W-L Other...
<b>21<sup>st</sup> Century Learning Skills</b> <small>(weekly strategies chosen to guide student engagement)</small>	Teamwork and Collaboration Initiative and Leadership Curiosity and Imagination	Innovation and Creativity Critical Thinking and Problem Solving Flexibility and Adaptability	Accessing and Analyzing Information Effective Oral and Written Communication Other...
	<b>Intervention Strategies (Tiers 1, 2, 3) Additional Support in Classroom</b>	<b>Specially Designed Instruction for Exceptional Education Students</b>	<b>Strategies for English Language Learners</b>
<b>Intervention Strategies</b>	Re-Voicing Explaining Prompting for Participation Challenging or countering Asking "Why?" or "How?" Reread Practice new academic vocabulary Assistive technology Pre-teach & re-teach in a different way Use of manipulatives Collaborative work Create differentiated text sets	Conferencing Additional time Small group collaboration Modify quantity of work Take student's dictation Scaffold information Differentiated (content/process/product) Consistent reward system Refer to students' IEP or 504 plan Assistive technology	Visuals/Realia Front-loading Echoing/Choral response Color-coding Multiple exposures in different media Pair-share Modeling Language scaffolds: example: sentence frames Deconstruct complex sentences Increase student-to-student talk Strategies vocabulary instruction Additional think time
	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
			<b>Tier 4</b>



<p><b>Gifted Extensions for Learning</b></p>	<p>Flexible-Learning Groups Choice of Books Homework Options Use of Reading Buddies Various Journal Prompts Student/Teacher Goal Setting Varied Pacing with Anchor Options Work Alone or Together Flexible Seating Varied Scaffolding Varied Computer Programs Design-A-Day Varied Supplemental Materials Computer Mentors Think-Pair-Share Open-ended Activities Explorations by Interest Options for Competition</p>	<p>Gifted Edu. Cluster Classes Gifted Edu. Collaboration Classes Tiered Activities and Products Use of Literature Clubs Multiple Testing Options Multiple Texts Alternative Assessments Subject Advancement within class Curriculum Compacting Tiered Centers Spelling by Readiness Varying Organizers Community Mentorships Stations Group Investigations Assess Students in Multiple Ways Student Choice Simulations</p>	<p>Advanced Content (all core content) Resource Classes Independent/Directed Study Socratic Seminars</p>	<p>Above grade level accelerated (all core content) Advanced Placement Classes International Baccalaureate Classes Internships Mentorships</p>
<p><b>Assessment Evidence (Formative)</b></p>	<p>Analyzing Student Work Round Robin Charts Strategic Questioning 3-Way Summaries</p>	<p>Think-Pair-Share 3-2-1 Countdown Classroom Polls Exit/Admit Tickets</p>	<p>One-Minute Paper Metacognition Table Four Corners Self-Evaluation</p>	<p>Stop and Go Classwork Trade/Peer Review Learning Logs Document Observations</p>