**Assessment Ideas for Science**

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| **Type of Assessment** | **What It Assesses** | **What It Looks Like in****the Science Classroom** |
| **Observation Checklists**(A list of desirablebehaviors that studentsexhibit over time) | DispositionsBehaviorsWays of thinking, acting, and interactingProgress or task completion | Student works well ina cooperative learning groupStudent shows respectfor living things andscience equipmentStudent exhibits honesty,persistence, thinking,and motivationStudent shares ideasand helps colleaguesStudent shows progressin completing tasks |
| **Interviews and Dialog**(Formal or informalconversations betweenteacher and studentthroughout the learningprocess) | Understanding of directionsUse of appropriate proceduresAccuracy of observationsor dataNew questions | Student is “on task”Student gives clarificationof data or written workStudent demonstratesconcept understandingStudent asks new, relevantquestions for further inquiry |
| **Learning Log****or Notebooks**(Written and pictorialrecords of student work:thinking andprocessing, actionplans, researchinformation anddata, conclusion,connections,extensions, andso forth) | Rationale and thinkingWritten descriptions of background information, action plans, observations, procedures, data, graphs, conclusions,summaries, and other componentsof investigationsVisuals that show thinking and meaningMeaning and links to prior knowledge | Students record inquiryquestions, problems,and hypothesesStudents describe priorknowledge and predictionsStudents show actionplans and describe processesused in investigationsData tables, graphs, charts, andgraphic organizersare completed and accuratePictures, diagrams,and illustrations showconcept understandingConclusions and summaries areaccurateStudents identify linksto self, technology,and prior knowledgeStudents describe next steps andshow new questions |
| **Teacher-Made Tests**(Force choice or openresponse questions thatenable studentsto show knowledgeor understanding ofimportant concepts andskills) | Vocabulary and concept understandingRelationships between conceptsKnowledge or understanding of skills | Students will showunderstanding of concepts,skills, and thinking through thefollowing:* Forced choice and

open response questions* Interpretations of graphs,

drawings, or visuals* Data analysis
* Concept applications
* Written explanations of solutions to problems
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| **Products and Projects**(A multidimensionalapproach to learningoften involving thedesign and buildingof something new;a novel or alternativeapproach to learninginvolving research orproblem solving) | Ability to access and usenew information purposefullyAbility to design or developa product that relatesto a key conceptShow creativity and abilityto make applicationsProblem-solving skills | Students create brochures or postersor other visuals requiring them toaccess and use new informationStudents write reports based onresearchStudents create products such asmodels, mobiles, or dioramas thatapply conceptsStudents solve problems usingtechnological designs |
| **Performance Tasks**(Paper-and-penciltasks and hands-onactivities that requirestudents to apply ordemonstrate learning) | Ability to apply learningto new problemUnderstanding of conceptsUse of process andthinking skillsLogical reasoning | Students apply concepts and skillsthrough drawings and descriptionsto new problemsStudents demonstrateunderstanding of concepts andskills in a variety of ways |
| **Portfolios**(Collections of studentwork over time; workprovides evidenceof levels of conceptunderstanding,skills, dispositions, andthinking) | Shows conceptunderstanding and skilldevelopmentWork samples gathered over time show changein thinking and abilityto solve problems | Notebook entries, lab reports, andsummaries show conceptunderstanding, development ofskills, and thinking and reasoningStudent is able to apply conceptsthrough inventions, projects, andproductsWork shows scientific thinking andproblem solving |
| **Criterion****Referenced Tests**(Questions aligned withinstructional objectives/outcomes;include multiplequestionson a single concept) | Determine levels ofunderstanding of conceptsand skills related to theschool curriculum | Students show conceptunderstanding through teacher madetests designed around taughtcurriculumStudents score well on benchmarktests based on curriculum |
| **Norm Referenced Tests**(High stakes tests;questions relatedto provincial or nationalgoals and outcomes) | Curriculum based conceptsand principlesThinking and process skills | Student scores on commerciallyproduced tests (Basic Skills;Advanced Placement; InternationalStudent scores on provincial tests |