Teacher Candidate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Semester\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course (circle one) ADO 420 / ADO 421 / ADO 525 / ADO 526 Supervisor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cooperating Teacher\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Subject\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

School\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ District\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** The cooperating teacher and supervisor should use the following rating scale to evaluate the teacher candidate’s performance in the classroom on the criteria indicated below. These criteria were developed with special consideration regarding the NSTA and InTASC standards to represent the content-area and pedagogy expectations that the SUNY Oswego School of Education has for its Adolescence Science candidates. Additional feedback can be provided on the final page of this form.

**3 (Highly Effective)** = The teacher candidate has demonstrated clear evidence of meeting the target standard.

**2 (Effective)** = The teacher candidate has demonstrated sufficient evidence of meeting the target standard.

**1 (Developing)** = The teacher candidate has begun to demonstrate evidence toward meeting the target standard.

**0 (Ineffective)** = The teacher candidate has not demonstrated evidence of meeting the target standard.

**No Basis** = The teacher candidate has not yet had the opportunity to demonstrate evidence of meeting the target standard.

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| **Planning and Preparation:**Effective teachers of science understand how students learn and develop scientific knowledge. Pre-service teachers use scientific inquiry to develop this knowledge. Effective teachers of science are able to plan for engaging students in science learning by setting appropriate goals that are consistent with knowledge of how students learn science and are aligned with state and national standards. The plans reflect the nature and social context of science, inquiry, and appropriate safety considerations. Candidates design and select learning activities, instructional settings, and resources—including technology to achieve those goals; and they plan fair and equitable assessment strategies to evaluate if the learning goals are met.  |
|   | **3-Highly Effective** | **2-Effective** | **1-Developing** | **0-Ineffective** | **Rating** |
| **Shows evidence for a deep understanding of the nature of science as a means for analysis of natural phenomenon, prompted by human curiosity and based on the support of evidence.**(NSTA 1a, 1b, 1c)(InTASC 4, 6) | Plans reflect a deep understanding of content by using many of the following in order to support student learning and subject matter requirements:-variety of instructional strategies -inquiry methods-resources/technology -experiences-assessments  | Plans reflect an understanding of content by using some of the following in order to support student learning and subject matter requirements: -variety of instructional strategies-inquiry methods-resources/technology -experiences -assessments | Plans reflect a surface-level understanding of content by using one or two of the following in order to support student learning and subject matter requirements: -variety of instructional strategies-inquiry methods-resources/technology-experiences -assessments  | Plans reflect minimal understanding of content. Instructional strategies and experiences may not be helpful in conveying content needed to support student learning or meet subject matter requirements.  |   |
| **Show an understanding of state and national curriculum standards and their impact on the content knowledge.**(NSTA 1c, 6a, 6b)(InTASC 4, 6) | The assessments allow students to show depth of understanding or skill with respect to the standards/objectives through a variety of modalities.  | The assessments allow students to show some depth of understanding or skill with respect to the standards/objectives through one or more modalities. | The assessments allow students to mainly show surface-level understanding of standards/objectives. | There is a significant mismatch between one or more assessment tools and the standards/objectives being assessed. |   |
| **Plan lessons in which the standards, objectives and learning tasks are consistently aligned with a central focus.** (NSTA 1a, 1b, 1c, 3a)(InTASC 2, 5) | Designs a progression of lessons in which the standards, objectives and learning tasks are aligned with a central focus and include multiple dimensions of science learning through clear connections among science concepts, real world phenomena, and investigation/ experimentation skills. | Designs lessons in which the standards, objectives and learning tasks are aligned with a central focus and include several dimensions of science learning through connections among science concepts, real world phenomena, and investigation/ experimentation skills. | Designs lessons in which the standards, objectives and learning tasks are somewhat aligned with a central focus. There are some connections among science concepts, real world phenomena, and investigation/ experimentation skills. | Designs lessons in which the standards, objectives and learning tasks are not aligned with a central focus.There may be some vague connections among science concepts, real world phenomena, and investigation/ experimentation skills. |   |
| **Plan lessons which demonstrate their ability, knowledge and understanding of how all of students learn science.**(NSTA 2a, 3a, 3b, 3c) (InTASC 2, 5) | Uses multiple instructional models, strategies and resources, including technology, to support and expand student learning. Appropriate and resourceful adaptations are made to communicate content requirements and address the diverse learning needs of students. | Uses instructional models, strategies and resources, including technology, to support student learning. Some adaptations are made to communicate content requirements and address the diverse learning needs of students. | Attempts to use a range of instructional models, strategies, and resources to support student learning. Few adaptations are made to communicate content requirements and address the diverse learning needs of students.  | Uses a limited range of instructional models, strategies, and resources to support student learning. No adaptations are made to communicate content requirements and address the diverse learning needs of students. |   |
| **Plan instruction so that lessons build on each other to create learning communities where students work together to develop and refine common ideas about science concepts.** (NSTA 3a, 3b, 3c, 5a, 5c)(InTASC 2, 5) |  Lesson plans provide multiple opportunities for student collaboration, critical/creative thinking, and problem-solving. Plans consistently link content knowledge to prior science understanding. | Lesson plans provide opportunities for student collaboration, critical/creative thinking, and problem-solving. Plans link content knowledge to prior science understanding. | Lesson plans provide few opportunities for student collaboration, critical/creative thinking, and problem-solving. Some links to prior science understanding are evident.  | Lesson plans do not provide opportunities for student collaboration, critical/creative thinking or problem-solving. Few links to prior science understanding are evident. |   |
| **Plan lessons where learning tasks draw on and engage students in examining their own strengths from preconceptions and experience, social/emotional development and interests.** (NSTA 2c, 3a, 3c, 5a, 5b)(InTASC 2, 3, 7, 8) | Create lesson plans that clearly address strengths, background knowledge, social/emotional development and interests of students. Lessons allow room for revision, improvement, and student goal setting with feedback and encouragement. | Create lesson plans that generally address strengths, background knowledge, social/emotional development and interests of students. Lessons allow room for revision and improvement with feedback and encouragement. | Create lesson plans that minimally address the strengths, background knowledge, social/emotional development and interests of students. Lessons allow little room for revision and improvement with some feedback. | Create lesson plans that may not clearly address the strengths, background knowledge, social/emotional development and interests of students. Lessons allow little room for revision and improvement. |  |
| **Plan lessons and/or activities in which students use data and their understanding of science concepts to discuss with each other about the quality of the data and to construct and evaluate explanations.** (NSTA 2b, 3a, 3b, 3c)(InTASC 2, 3, 7, 8) | Lesson plans and activities allow for students to use an integrated range of learning skills, including inquiry and technology to access, interpret, apply and evaluate data. Plans include opportunities for collaborative and self-directed learning involving the understanding of science concepts. | Lesson plans and activities allow for students to use a range of learning skills, including inquiry and technology to access, interpret, apply and evaluate data. Plans include opportunities for collaborative learning involving the understanding of science concepts.  | Lesson plans and activities target mostly recall thinking with some higher level questioning. Plans include some opportunities for inquiry, collaborative learning and technology use in order to access, interpret, apply and evaluate data.  | Lesson plans and activities target lower order thinking skills and do not attempt to engage students through inquiry processes. Plans provide few opportunities for collaborative learning or technology use to access, interpret, apply and evaluate data.  |   |
| **Plan for a safe classroom environment, including appropriate learning experiences which demonstrate understanding of emergency and safety procedures.** (NSTA 3d, 4a, 4b)(InTASC 1, 3, 7, 8) | Safety and emergency procedures are posted, reviewed and demonstrated prior to lessons. Plans include appropriate learning experiences, i.e. inspection of equipment for safe functionality before each use, proper storage and disposal of chemicals.  | Safety and emergency procedures are posted and reviewed prior to lessons. Plans include appropriate learning experiences, i.e. inspection of equipment for safe functionality before each use, proper storage and disposal of chemicals.  | Safety and emergency procedures are posted and reviewed. Learning experiences may not always demonstrate understanding of safety procedures. | Safety and emergency procedures are posted There are few learning experiences that demonstrate understanding of safety procedures. |   |

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| **Instructional Practices:**Effective teachers of science understand and articulate the knowledge and practices of contemporary science. They interrelate and interpret important concepts, ideas, and applications in their fields.Effective teachers of science can demonstrate and maintain chemical safety, safety procedures, and the ethical treatment of living organisms needed in science classroom appropriate to their area of licensure.  |
|   | **3-Highly Effective** | **2-Effective** | **1-Developing** | **0-Ineffective** | **Rating** |
| **Lead instruction by communicating key ideas for effective and meaningful lessons in their given content area (biology, chemistry, Earth science, physics) as listed in the core competencies for each discipline.**(NSTA 1a, 1b, 3a, 3b, 5c)(InTASC 4, 6) | Instruction is clearly presented, meaningful and well organized. Demonstrations, prompts, questioning and appropriate adaptations are included to communicate content requirements that address diverse learning needs. | Instruction is well presented, meaningful and organized. Demonstrations, prompts and questioning are included to communicate content requirements. There is some evidence of appropriate adaptations to address diverse learning needs. | Instruction is meaningful and organized but not clearly presented. Demonstrations, prompts and questioning are included, but may not effectively communicate content requirements. There is little evidence of appropriate adaptations to address diverse learning needs. | Instruction is not clearly presented and lacks organization. Demonstrations, prompts and questioning are rarely included, and do not effectively communicate content requirements. There is no evidence of appropriate adaptations to address diverse learning needs. |   |
| **Develops instruction that draws on student prior ideas and moves collective student understanding forward in a manner that supports the open-ended inquiry of scientific ideas.**(NSTA 3a, 3b, 3c, 5a, 5b, 5c) (InTASC 4, 6) | Instruction effectively activates students prior knowledge, addresses misconceptions, and supports students in making connections to new learning. Multiple inquiry strategies are used to engage, support, and expand student learning.  | Instruction effectively activates students’ prior knowledge and helps them make connections to new learning. Students are often engaged in the inquiry process to expand their learning. | Instruction does not effectively activate students’ prior knowledge or help them make connections to new learning. Some attempts to use inquiry methods and strategies are evident but students are not fully engaged.  | Instruction does not help students make connections to their prior knowledge or experiences. Relies primarily on direct instruction strategies. |   |
| **Implement lessons that include a variety of active inquiry lessons where students collect and interpret data in order to develop and communicate concepts and understand scientific process, relationships and nature patterns from empirical experiences.** (NSTA 2b, 3a, 3b, 5c)(InTASC 2, 5) | Implement lessons that actively engage students with a variety of inquiry procedures. Demonstrates the use of multiple authentic learning experiences that connect real world experiences to science content areas through investigation and experimentation skills. | Implement lessons that engage students with inquiry procedures. Demonstrates the use of authentic learning experiences that connect real world experiences to science content areas through investigation and experimentation skills. | Implement lessons that provide only minimal attempts at inquiry. Demonstrates the use of a few authentic learning experiences that connect real world experiences to science content areas through investigation and experimentation skills. | Implement lessons that do not include inquiry procedures. Few authentic learning experiences are used which may or may not connect real world experiences to science content areas. Student engagement, investigation and experimental skills may be lacking.  |   |
| **Lead students in activities that are intellectually engaging and involve collecting, analyzing, and interpreting data.** (NSTA 2b, 3a, 3b, 3c)(InTASC 2, 5) | Students have structured opportunities to actively engage with content in ways likely to improve and expand their abilities to collect, analyze, and interpret scientific data. Opportunities are task appropriate and address individual learning needs. | Students have structured opportunities to engage with content in ways likely to improve their abilities to collect, analyze, and interpret scientific data. Opportunities generally address student learning needs.  | Students have some opportunities to engage with content in ways likely to improve their abilities to collect, analyze, and interpret scientific data. Some opportunities may address student needs. | Students have limited opportunities to engage with content in ways likely to improve their abilities to collect, analyze, and interpret scientific data. |   |
| **Encourages students to consider their prior learning, experiences, and the collection, analysis, and interpretation of data.** (NSTA 3a, 3b, 3c)(InTASC 2, 3, 7, 8)  | Students are encouraged to consider prior learning and experiences through questioning and challenging assumptions in the discussion of data. Students initiate and reflect on multiple perspectives to the discussion of content. | Students are encouraged to consider prior knowledge and experiences through questioning and challenging assumptions in the discussion of data. Candidate elicits multiple perspectives to the discussion of content. |  Students are encouraged to consider prior knowledge through direct questioning and recall thinking. Candidate provides connections to content in the discussion of data.  | Students are rarely encouraged and have limited opportunities to use prior knowledge learning and experiences.  |   |
| **Build a supportive classroom environment for students that include multiple ways of engaging with content that support students to meet specific standards/objectives within the central focus.** (NSTA 2a, 2b, 3a, 3b, 3c)(InTASC 2, 3, 7, 8)  | Behavior expectations are collaboratively developed with students, and interactions are positive, supportive and respectful. Students have multiple ways of engaging with content including collaborative group work, technology use and self-guided learning.  | Behavior expectations are clearly communicated, and interactions are supportive and respectful. Students have several ways of engaging with content including collaborative group work and technology use. | Behavior expectations are shallow and may be unclear. Interactions are supportive and respectful. Students have few ways of engaging with content which may include collaborative group work and technology use. | Behavior expectations are unclear. Interactions are usually supportive and respectful. Students have limited ways of engaging with content. |   |
| **Facilitate interactions among students to identify weaknesses and limitations of data collection procedures, interpretations and explanations.** (NSTA 3a, 3b 5b, 5c)(InTASC 2, 3, 7, 8)  | Candidate monitors student understanding by building on student response and input to guide the improvement of collection, analysis and interpretation of scientific data.  | Candidate monitors student understanding by eliciting student responses that require a deeper thinking about science concepts and the quality of data. | Candidate monitors student understanding by asking surface-level questions and evaluating student responses as correct or incorrect. Student responses require recall thinking about science concepts and the quality of data. | Candidate primarily monitors student understanding by asking surface-level questions and evaluating student responses as correct or incorrect. Interactions fail to relate to the quality of data. |   |
| **Have been observed to know and practice safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials used in science instruction.** (NSTA 4a, 4b)(InTASC 1, 3, 7, 8) | Candidate regularly inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc. | Candidate frequently inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc. | Candidate sometimes inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc. | Candidate rarely inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc. |   |
| **Know and be able to communicate to students emergency procedures, safe maintenance of equipment, and ensure safety procedures appropriate for the activities and the abilities of students.**(NSTA 4a, 4b)(InTASC 1, 3, 7, 8)  | Candidate is knowledgeable concerning all emergency situations and procedures for: • chemical spill • fire • gas leak • glass breakage • student injury documentationModeling and teaching of safety procedures is consistently demonstrated. | Candidate is knowledgeable concerning most emergency situations and procedures for: • chemical spill • fire • gas leak • glass breakage • student injury documentationModeling and teaching of safety procedures is evident. | Candidate is knowledgeable concerning some emergency situations and procedures for:• chemical spill • fire • gas leak • glass breakage • student injury documentationModeling of safety procedures is evident. | Candidate is not knowledgeable concerning emergency situations and procedures. No evidence of communication to students regarding safety procedures.  |   |
| **Show evidence for treating all living organisms used in the classroom or found in the field in a safe, humane, and ethical manner and respect legal restrictions on their collection, keeping, and use.** (NSTA 3d, 4c)(InTASC 1, 3, 7, 8) | Candidate regularly teaches, models and reviews safety measures with students regarding classroom activities, laboratory activities and the ethical treatment of live specimens. | Candidate frequently teaches, models and reviews safety measures with students regarding classroom activities, laboratory activities and the ethical treatment of live specimens. | Candidate occasionally teaches, models and reviews safety measures with students regarding classroom activities, laboratory activities and the ethical treatment of live specimens. | Candidate rarely teaches, models or reviews safety measures with students regarding classroom activities, laboratory activities or the ethical treatment of live specimens. |   |

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| **Assessment:**Effective teachers of science provide evidence to show that students understanding of major science concepts, principles, theories, and laws have changed as a result of instructions by the candidate and that student knowledge is at a level of understanding beyond memorization.  |
|   | **3-Highly Effective** | **2-Effective** | **1-Developing** | **0-Ineffective** | **Rating** |
| **Collect, organize, analyze and reflect on diagnostic, formative and summative evidence of change in mental functioning demonstrating that science knowledge is gained and/or corrected.** (NSTA 3c, 5a, 5c)(InTASC 1, 5, 6) | The performance analysis identifies specific patterns of student learning for individuals and/or subgroup(s) in addition to the whole class. Next steps focus on improving student performance through targeted support that addresses specific identified needs. | The analysis of whole group and some subgroup performances describe differences in levels of student learning for the content assessed. Next steps focus on improving student performance through support that addresses identified student needs. | The analysis of whole class performance describes general differences in levels of student learning for the content assessed. Next steps focus on improving student performance through support that addresses some identified student needs. | The analysis of work samples do not describe differences in levels of student learning for content assessed. Next steps are vaguely related to or not aligned with identified student needs. |   |
| **Use a set of assessments that are aligned to the standards and objectives stated in the plan for instruction and throughout the learning segment.** (NSTA 2c, 3b, 3c, 5a) (InTASC 1, 5, 6) | Uses a variety of pre-, formative and summative assessment tools to monitor progress toward learning objectives; differentiates assessment opportunities to address student needs and strengths; effectively uses assessment data to guide planning by identifying student’s learning needs. | Uses a variety of pre-, formative and summative assessment tools to monitor progress toward learning objectives; offers diversity in assessment opportunities; uses assessment data to guide planning but may not consider individual student’s learning needs.  | Uses pre-, formative and summative assessment tools that are not always aligned with learning objectives; offers some diversity in assessment opportunities; collects assessment data and makes some effort to use such data in future planning. | Uses assessments that are not always aligned with learning objectives; does not provide opportunities for students to demonstrate understanding in diverse ways; collects assessment data but makes minimal effort to use such data in future planning. |   |
| **Analyze evidence provided by assessment, with a focus on patterns of student understandings, skills, and misunderstandings.** (NSTA 2c, 3c, 5a, 5b) (InTASC 1, 5, 6) | Assessment evidence has been analyzed and described in specific detail, focusing on patterns of student understandings, skills and misconceptions. | Assessment evidence has been analyzed and described in sufficient detail, focusing on patterns of student understandings and skills. Some analysis of student misconceptions is evident.  | Assessment evidence has been analyzed and focuses on patterns of student understandings and skills. Analysis of student misconceptions may be evident, but is minimal. | Assessment evidence has been minimally analyzed and loosely focuses on patterns of student understandings and skills. Analysis of student misconceptions may or may not be evident. |   |
| **Provide clear, specific and accurate feedback to students in order to help students improve and deepen their scientific understands to evaluate their own work.** (NSTA 2a, 2b, 2c, 3a, 3b, 3c)(InTASC 1, 5, 6) | Feedback is specific and timely, helps the student understand what s/he has done well and provides explicit guidance about how to improve their work related to specific learning objectives. | Feedback is timely and helps the student understand what s/he has done well and provides guidance about how to improve their work related to specific learning objectives. | Feedback identifies what was done well and provides some guidance for improvement related to specific learning objectives. | Feedback is general and provides minimal guidance for improvement related to specific learning objectives.  |   |

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| **Professionalism:**Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content and science pedagogy. They identify with and conduct themselves as part of the science education community.  |
|   | **3- Highly Effective** | **2- Effective** | **1-Developing** | **0-Ineffective** | **Rating** |
| **Acts in concert with trends in science teaching practice which are specific and strategic to improve individual and collective student understanding of science concepts and the nature of science.** (NSTA 1a, 1c, 6a, 6b)(InTASC 9,10) | Candidate identifies and explains essential vocabulary that may be problematic for students. The language genre(s) discussed are clearly related to the academic purpose of the learning segment and language demands are identified. One or more linguistic features and/or textual resources of the genre are explicitly identified and taught.  | Candidate identifies essential vocabulary that may be problematic for students.The language genre(s) discussed are clearly related to the academic purpose of the learning segment and language demands are identified. One or more linguistic features and/or textual resources of the genre are explicitly identified.  | Candidate identifies vocabulary that may be problematic for students.The language genre(s) discussed are clearly related to the academic purpose of the learning segment and language demands are identified. |  Candidate identifies unfamiliar vocabulary without considering other linguistic features.Language genre(s) discussed is only tangentially related to the academic purposes of the learning segment.  |   |
| **Use evidence from assessments in the analysis of students learning to modify instruction for maximizing the effectiveness of instruction.** (NSTA 2c, 3a, 3b, 3c, 5a)(InTASC 9, 10)  | Adjustments to instruction are focused on addressing most individual and collective learning needs.  | Adjustments to instruction are focused on addressing some individual and collective learning needs.  | Adjustments to instruction are focused on improving directions for learning tasks, time management, or re-teaching.  | There is limited evidence of adjusting instruction in response to observed problems, e.g., student confusion, a lack of challenge, time management.  |   |
| **Act as a leader in collaborating with other science teachers and school professionals in the positive development of student achievement.** (NSTA 6a, 6b)(InTASC 9, 10) | Candidate initiates, participates and interacts with faculty members, team members and other building personnel, formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations).  | Candidate participates and interacts with faculty members, team members and other building personnel, formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations).  | Candidate rarely participates and interacts with faculty members, team members and other building personnel, formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations).  | Candidate does not participate and/or interacts with faculty members, team members and other building personnel., either formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations).  |   |
| **Show evidence for understanding the legal and ethical responsibilities of science teachers for the welfare of their students, the proper treatment of animals, and the maintenance and disposal of materials.** (NSTA 3d, 4a, 4b, 4c)(InTASC 9, 10)  | Candidate regularly teaches, models, and reviews safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens. | Candidate frequently teaches, models, and reviews safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens. | Candidate occasionally teaches, models, and reviews safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens. | Candidate rarely teaches, models and reviews safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens. |   |

Comments about strengths:

Comments about target areas for growth and/or improvement:

Cooperating Teacher’s Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor’s Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_