Main Criteria: National Theatre for Children

Secondary Criteria: New York State Learning Standards and Core Curriculum, Next Generation Science Standards (NGSS)

Subject: Science

Grades: K, 1, 2

National Theatre for Children

How electricity is made

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	**NY.P4.**	**The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.**
CATEGORY / CLUSTER / KEY IDEA	**P4.4:**	**Energy exists in many forms, and when these forms change energy is conserved.**
STANDARD / CONCEPTUAL UNDERSTANDING	**4.4.2.**	**Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).**
STRAND / DOMAIN / UNIFYING THEME	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**
CATEGORY / CLUSTER / KEY IDEA	**7.1:**	**The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.**
STANDARD / CONCEPTUAL UNDERSTANDING	**7.1.1.**	**Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action**

New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	**NY.P4.**	**The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.**
CATEGORY / CLUSTER / KEY IDEA	**P4.4:**	**Energy exists in many forms, and when these forms change energy is conserved.**
STANDARD / CONCEPTUAL UNDERSTANDING	**4.4.2.**	**Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).**
STRAND / DOMAIN / UNIFYING THEME	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**
CATEGORY / CLUSTER / KEY IDEA	**7.1:**	**The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.**
STANDARD / CONCEPTUAL UNDERSTANDING	**7.1.1.**	**Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action**

New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	**NY.P4.**	**The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.**
CATEGORY / CLUSTER / KEY IDEA	**P4.4:**	**Energy exists in many forms, and when these forms change energy is conserved.**
STANDARD / CONCEPTUAL UNDERSTANDING	**4.4.2.**	**Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).**
STRAND / DOMAIN / UNIFYING THEME	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**
CATEGORY / CLUSTER / KEY IDEA	**7.1:**	**The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.**
STANDARD / CONCEPTUAL UNDERSTANDING	**7.1.1.**	**Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action**

How energy is used unwisely

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**
CATEGORY / CLUSTER / KEY IDEA	**7.1:**	**The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.**
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New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**
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New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING	**NY.7.**	**Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.**

THEME		
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

Next Generation Science Standards (NGSS)

Science

Grade **K** - Adopted: **2013**

STRAND	NGSS.K-ESS.	EARTH AND SPACE SCIENCE
TITLE	K-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	K-ESS3-3.	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

How we use natural resources

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
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New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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		phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

The science of energy and technology

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.P4.	The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	P4.4:	Energy exists in many forms, and when these forms change energy is conserved.
STANDARD / CONCEPTUAL UNDERSTANDING	4.4.1.	Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

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New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND /	NY.P4.	The Physical Setting: Students will understand and apply scientific concepts,

DOMAIN / UNIFYING THEME		principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	P4.4:	Energy exists in many forms, and when these forms change energy is conserved.
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STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

The science of natural resources

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

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STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues

IDEA		of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

The uses of electricity

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.L4.	The Living Environment: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	L4.6:	Plants and animals depend on each other and their physical environment.
STANDARD / CONCEPTUAL UNDERSTANDING	4.6.2.	Describe the relationship of the Sun as an energy source for living and nonliving cycles.
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.2.	Make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit trade-offs to arrive at an optimal choice

New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.L4.	The Living Environment: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	L4.6:	Plants and animals depend on each other and their physical environment.
STANDARD / CONCEPTUAL UNDERSTANDING	4.6.2.	Describe the relationship of the Sun as an energy source for living and nonliving cycles.
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action
STANDARD /	7.1.2.	Make informed consumer decisions by applying knowledge about the attributes of

CONCEPTUAL UNDERSTANDING		particular products and making cost/benefit trade-offs to arrive at an optimal choice

New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.L4.	The Living Environment: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	L4.6:	Plants and animals depend on each other and their physical environment.
STANDARD / CONCEPTUAL UNDERSTANDING	4.6.2.	Describe the relationship of the Sun as an energy source for living and nonliving cycles.
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
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STANDARD / CONCEPTUAL UNDERSTANDING	7.1.2.	Make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit trade-offs to arrive at an optimal choice

Next Generation Science Standards (NGSS)

Science

Grade **K** - Adopted: **2013**

STRAND	NGSS.K-PS.	PHYSICAL SCIENCE
TITLE	K-PS3.	Energy
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	K-PS3-1.	Make observations to determine the effect of sunlight on Earth's surface.
STRAND	NGSS.K-ESS.	EARTH AND SPACE SCIENCE
TITLE	K-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	K-ESS3-3.	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

What YOU can do to conserve energy

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.L4.	The Living Environment: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
CATEGORY / CLUSTER / KEY IDEA	L4.7:	Human decisions and activities have had a profound impact on the physical and living environments.
STANDARD /	4.7.1.	Identify ways in which humans have changed their environment and the effects of

CONCEPTUAL UNDERSTANDING		those changes.
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.2.	Make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit trade-offs to arrive at an optimal choice

New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

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New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.L4.	The Living Environment: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
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STRAND / DOMAIN / UNIFYING	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

THEME		
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
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Next Generation Science Standards (NGSS)

Science

Grade **K** - Adopted: **2013**

STRAND	NGSS.K-ESS.	EARTH AND SPACE SCIENCE
TITLE	K-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	K-ESS3-3.	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

What are energy and electricity

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.P4.	The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
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STANDARD / CONCEPTUAL UNDERSTANDING	4.4.1.	Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.
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New York State Learning Standards and Core Curriculum

Science

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UNDERSTANDING		
STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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New York State Learning Standards and Core Curriculum

Science

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What are energy resources

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
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New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

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THEME		
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
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New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

What is and how to be Energy Efficient

New York State Learning Standards and Core Curriculum

Science

Grade **K** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

New York State Learning Standards and Core Curriculum

Science

Grade **1** - Adopted: **2005**

STRAND / DOMAIN / UNIFYING THEME	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

New York State Learning Standards and Core Curriculum

Science

Grade **2** - Adopted: **2005**

STRAND / DOMAIN /	NY.7.	Interdisciplinary Problem Solving: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the

UNIFYING THEME		themes to these and other areas of learning.
CATEGORY / CLUSTER / KEY IDEA	7.1:	The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.
STANDARD / CONCEPTUAL UNDERSTANDING	7.1.1.	Analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action

Next Generation Science Standards (NGSS)

Science

Grade **K** - Adopted: **2013**

STRAND	NGSS.K-ESS.	EARTH AND SPACE SCIENCE
TITLE	K-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	K-ESS3-3.	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.