StoryStarter Space
Curriculum Pack

COMMON CORE STATE STANDARDS
Speaking & listening • Language • Reading • Writing

StoryStarter

LEGO® Education

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Tip: If you wish to integrate the StoryStarter Space Expansion Set elements into your StoryStarter Core Set, a StoryStarter Space Expansion Set sticker is provided to place on the storage box.

Introduction

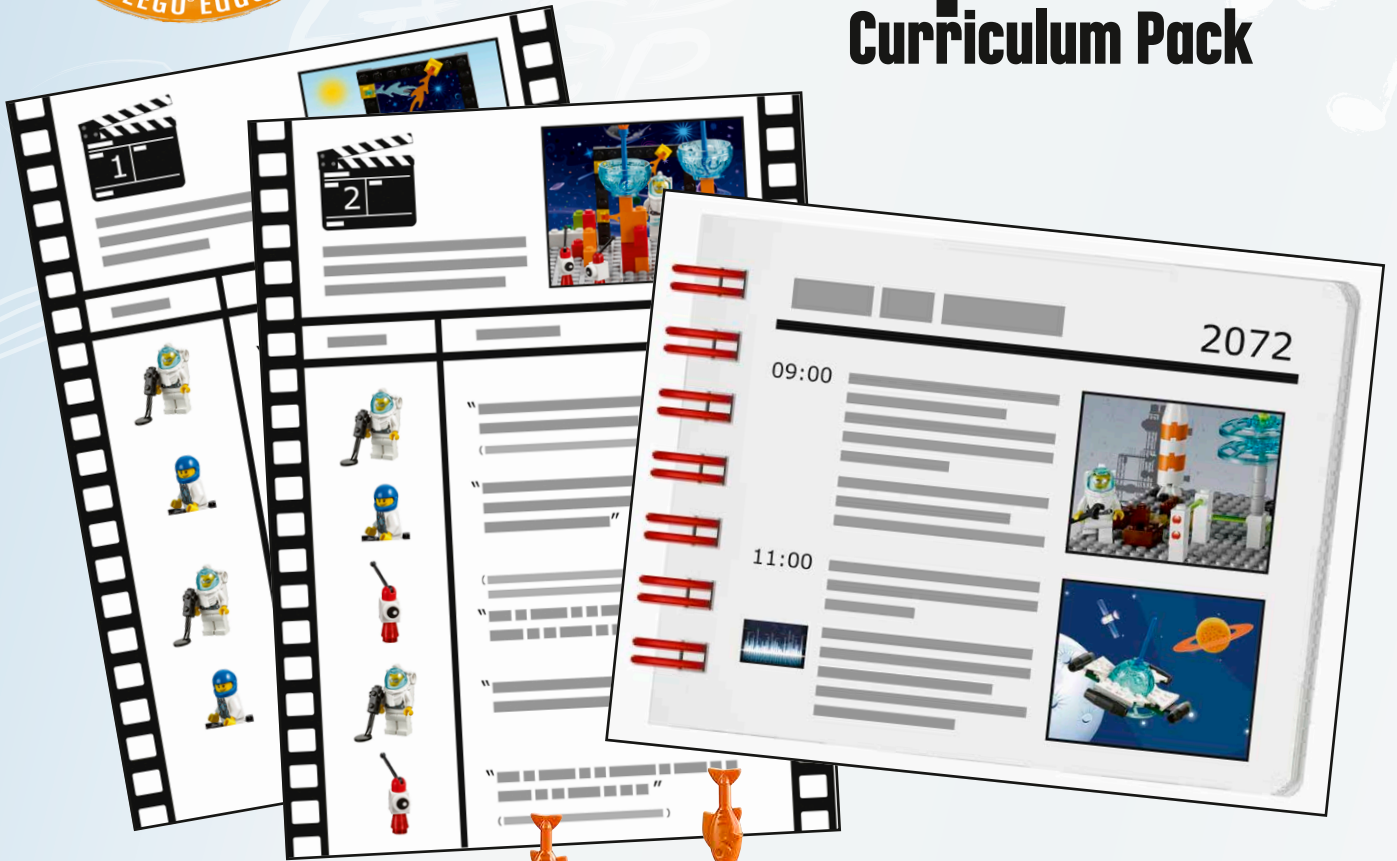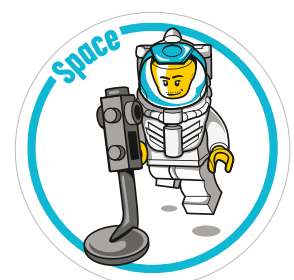LEGO® Education is pleased to bring you the Curriculum Pack for the 45102 StoryStarter Space Expansion Set. The StoryStarter Space Curriculum Pack offers activities around the exciting theme of space. Software assets designed specifically for the StoryStarter Space Expansion Set have been added to the StoryVisualizer software, therefore, please ensure the software has been downloaded after January 1, 2015.

It is recommended that you implement some or all the activities in the 2045100 StoryStarter Curriculum Pack before implementing the activities in this StoryStarter Space Curriculum Pack. Because teachers and students are familiar with the StoryStarter Core Set and activities, the StoryStarter Space Curriculum Pack activities are more condensed to allow for easy implementation.

What is it for?

The StoryStarter Space Expansion Set encompasses all the benefits of the StoryStarter Core Set while broadening its use by allowing students to explore the science fiction genre, social studies (including recounting historical events), and natural science. The unique elements enable students to learn about: science fiction characteristics, people and their needs, and space exploration. The StoryStarter Space Curriculum Pack highlights real-world relevance by asking students to read informational texts and communicate their learning to others, thereby endowing students with the powerful skills of conducting research and interpreting findings. Below are the types and names of activities in the StoryStarter Space Curriculum Pack and a concise description of each:

- Building and Telling Stories:
  - **Discover Brickzomia** Students create more detailed stories using a thematic approach.

- Science Fiction Genre:
  - **Mr. Garrold's TV Debut** Students explore characteristics of the science fiction genre and incorporate them into a creative writing assignment for a TV pilot.
  - **Future Predictions** Students explore characteristics of the science fiction genre by building stories about the future and writing letters.

- Research and Report:
  - **Moon Missions** Students research events around moon exploration and incorporate information into building a story and writing a news article.
  - **Sustainable Life** Students research the needs of people and incorporate information into building a story and writing instructions.
  - **Space Stations** Students research space stations and incorporate information into building a story and writing transmissions from space.
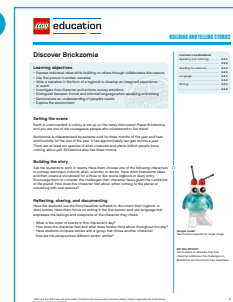
Assessment

Assessment can be conducted a variety of ways using the StoryStarter Space Expansion Set:

- The sample rubric in the StoryStarter Curriculum Pack can be adapted and used with the StoryStarter Space Curriculum Pack.
- Each activity contains a "Did you notice?" section in the sidebar with concrete tips to supplement formative assessment.
- The StoryVisualizer software is an excellent tool for reviewing students' stories in a portfolio.

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe why they chose the event they wrote about. Why was it an influential event? Document their responses.

Curriculum Grid

The curriculum grid below shows how all the activities are linked to Common Core Standards in English Language Arts:

Activity Title	Type of Activity	Speaking and Listening	Reading for Literature	Reading for Informational Texts	Language	Writing
Discover Brickzomia	Building and Telling Stories	2-5.1	2-5.3		2-5.1	2-5.3
		2-5.4	2-5.5		2-5.3	2-5.6
Mr. Garrold's TV Debut	Science Fiction Genre	2-5.1	2-5.3		2-5.1	2-5.3
		2-4.4	2-5.5		2-5.3	2-5.5
Future Predictions	Science Fiction Genre	2-5.1	2-4.3		2-5.1	2.3
		2-5.3	2-5.6		2-5.3	3.3a,d
						4-5.3a,d-e
Moon Missions	Research and Report	2-5.1	2-5.3	2-5.1	2-5.1	2-5.2
		2-5.4		2-5.3	2-5.6	2-5.7
				2-5.6		2-5.8
Sustainable Life	Research and Report	2-5.1	2-5.3	2-5.3	2-5.1	2-5.2
		2-5.3		2-5.6	2-5.3	2-5.7
		2-5.4			2-5.6	2-5.8
Space Stations	Research and Report	2-5.1	2-5.3	2-5.3	2-5.1	2.2
		2-5.4		2-5.6	2-5.3	3-5.2a-b
					2-5.6	2-5.7
						2-5.8

Cross-curricular learning objectives for social studies

- Demonstrate an understanding of people's needs
- Explore how humans interact with technology
- Research and recount historical events

Cross-curricular learning objectives for natural science

- Explore the environment
- Explore characteristics of space and space travel
- Demonstrate an understanding of the relationships of Earth and other objects in the solar system

Discover Brickzomia

Learning objectives

- Express individual ideas while building on others through collaborative discussions
- Use first person in written narrative
- Write a narrative in the form of a logbook to develop an imagined experience or event
- Investigate how character and actions convey emotions
- Distinguish between formal and informal language when speaking and writing
- Demonstrate an understanding of people's needs
- Explore the environment

Setting the scene

Earth is overcrowded! A colony is set up on the newly discovered Planet Brickzomia, and you are one of the courageous people who volunteered to live there!

Brickzomia is characterized by extreme cold for three months of the year and heat and humidity for the rest of the year. It has approximately two gas storms a year. There are at least ten species of alien creatures and plants (which people know nothing about yet). Brickzomia also has three moons.

Building the story

Ask the students to work in teams. Have them choose one of the following characters to portray: astronaut, colonist, alien, scientist, or doctor. Have them brainstorm ideas and then create a storyboard for a three or five scene logbook or diary entry. Encourage them to consider the challenges their character faces given the conditions of the planet. How does this character feel about either coming to the planet or coexisting with new species?

Reflecting, sharing, and documenting

Have the students use the StoryVisualizer software to document their logbook or diary entries. Have them focus on writing in the first person and use language that expresses the feelings and viewpoints of the character they chose:

- What is the order of events in this character's day?
- How does the character feel and what does he/she think about throughout the day?
- Have students compare stories with a group that chose another character; how are the perspectives different and/or similar?

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe how their character addresses the challenges on Brickzomia and document their responses.

Mr. Garrold's TV Debut

Learning objectives

- Express individual ideas while building on others through collaborative discussions
- Write a script with details and descriptive language
- Produce clear and coherent writing appropriate to task, purpose, and audience
- Compare and contrast themes, settings, and plots in different genres
- Explore science fiction genre by including elements of space in a fictitious narrative
- Explore how humans interact with technology

Common Core Standards	
Speaking and Listening:	2-5.1
	2-4.4
Reading for Literature:	2-5.3
	2-5.5
Language:	2-5.1
	2-5.3
Writing:	2-5.3
	2-5.5

Setting the scene

Mr. Garrold is the king of the silver screen. He has made millions producing amazing science fiction movies, but he is bored and wants to make a TV series instead. He needs a wonderfully creative writer to help him create his pilot episode. Ask students to discuss the characteristics of the science fiction genre. It may be necessary to conduct one or two read alouds of science fiction stories before asking questions, such as: How does the science fiction genre differ from other genres? What do most science fiction stories have in common? What are some of the differences? What are the characteristics of science fiction?

Building the story

Ask the students to work in teams. Have them brainstorm ideas and create a storyboard for a three or five scene plotline for Mr. Garrold's TV series pilot. Remind students that a pilot needs to introduce the characters, setting, and main plot lines of the TV series. Encourage them to consider where and when the story takes place and the characteristics of the main characters and their motives.

Reflecting, sharing, and documenting

Have the students use the StoryVisualizer software to document their scenes and write a script for Mr. Garrold's TV pilot:

- What are the turning points of the plot?
- What characters will the audience find most interesting and why?
- What elements make this a science fiction story? How do these elements impact the plot and characters?

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe how the science fiction elements in their story impact the plot and characters. Document their responses.

Future Predictions

Learning objectives
- Express individual ideas while building on others through collaborative discussions
- Distinguish between formal and informal language when speaking and writing
- Tell a story using relevant, descriptive details to support main ideas
- Write letters from a specific perspective
- Explore the science fiction genre by including elements of technology in a fictitious narrative
- Explore how humans interact with technology

Common Core Standards

Speaking and Listening:	**2-5.1**
....	**2-5.3**
Reading for Literature:	**2-4.3**
....	**2-5.6**
Language:	**2-5.1**
....	**2-5.3**
Writing:	**2.3**
....	**3.3a,d**
....	**4-5.3a,d-e**

Setting the scene
A lot of science fiction takes place in the future and requires audiences to explore the relationship between people and technology. Many authors have guessed at what life will be like in the future — now it's your turn! Think about the different aspects of life that may be influenced by future technology, such as school, jobs, buildings, sports, etc.

Building the story
Ask the students to work in teams. Have them brainstorm ideas and create a three or five scene story depicting what life will be like in the future. Ask students to consider how people will interact with technology in the future: How do they feel? What are the problems and possible solutions? You can choose a specific time frame (e.g., twenty-five years from now) or let students decide.

Reflecting, sharing, and documenting
Have the students use the StoryVisualizer software to document their scenes and then write letters from the perspective of someone in the future describing what life is like:

- How do people travel and communicate?
- What does school look like?
- What roles and responsibilities exist in the future?

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe the details they include about the future and their reasons for each. Document their responses.

Moon Missions

Learning objectives
- Express individual ideas while building on others through collaborative discussions
- Gather and interpret information from non-fictional texts
- Make connections among a series of events
- Dramatize a real event to make it more interesting while communicating key issues
- Write a news article with details and general information
- Research and recount historical events
- Demonstrate an understanding of the relationships of Earth and other objects in the solar system

Setting the scene
Space exploration is an important part of human history. Moon landings are a prominent piece of this history, but it didn't happen all at once. Have students work in teams to research the events surrounding exploration and travel to the moon.

Building the story
Ask the students to continue to work in teams. Have them brainstorm ideas and create a three or five scene story depicting the historical events leading up to and including people going to the moon. Encourage students to incorporate the information they gathered during their research. Have them consider the challenges involved in this event. How did those involved respond?

Reflecting, sharing, and documenting
Have the students use the StoryVisualizer software to document their scenes and present them. Then ask students to write a news article about one of the major events they researched:

- When did the event occur and who was involved?
- How did the people involved feel during this event? How did others around the world respond?
- How did this event affect history and space exploration?

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe why they chose the event they wrote about. Why was it an influential event? Document their responses.

Sustainable Life

Learning objectives

- Gather and interpret information from non-fictional texts
- Express individual ideas while building on others through collaborative discussions
- Determine main ideas and supporting details of a text or information presented in diverse medias and formats
- Write an informational piece in the form of instructions with details and general information
- Distinguish between formal and informal language when speaking and writing
- Demonstrate an understanding of people's needs
- Explore the environment

Common Core Standards

Speaking and Listening:	2-5.1
	2-5.3
	2-5.4
Reading for Literature:	2-5.3
Reading for Informational Texts:	2-5.3
	2-5.6
Language:	2-5.1
	2-5.3
	2-5.6
Writing:	2-5.2
	2-5.7
	2-5.8

Setting the scene

People need certain things to survive, such as water, oxygen, and food. Have students imagine that people will set up a colony on the moon. Have students work in teams to research the necessities to stay alive in space and think about what humans will need in order to set up a successful colony.

Building the story

Ask the students to continue to work in teams. Have them brainstorm a set of instructions with three or five scenes detailing how to create a sustainable colony on the moon incorporating the information gathered during their research. They should consider how people will get water, oxygen, and food and remain protected from the natural elements. Students can also show what kinds of devices, machines, and buildings will be necessary.
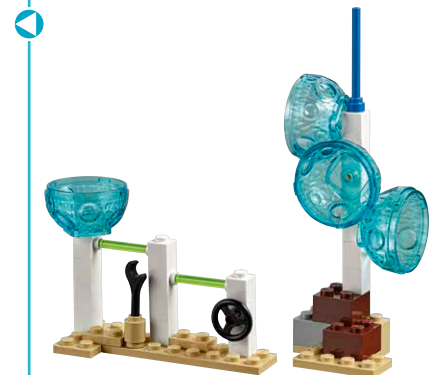
Reflecting, sharing, and documenting

Have the students use the StoryVisualizer software to document their instructions. Have them focus on using detailed language and clear, precise explanations. Encourage students to share their instructions with another group, ask each other clarifying questions, and/or summarize key points:

- Demonstrate how people get oxygen, water, and food.
- How complex or simple do the instructions need to be?
- Do people need more than one set of instructions? Why or why not?
- Why is it important to have clear, precise instructions?

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to explain how their set of instructions responds to the possible challenges of life on the moon and document their responses.

Space Stations

Learning objectives

- Gather and interpret information from non-fictional texts
- Write an informational piece in the form of a transmission from space with details and general information
- Distinguish between formal and informal language when speaking and writing
- Integrate information from multiple texts into original written pieces
- Explore characteristics of space and space travel
- Research and recount historical events

Common Core Standards	
Speaking and Listening:	**2-5.1**
....	**2-5.4**
Reading for Literature:	**2-5.3**
Reading for Informational Texts:	**2-5.3**
....	**2-5.6**
Language:	**2-5.1**
....	**2-5.3**
....	**2-5.6**
Writing:	**2.2**
....	**3-5.2a-b**
....	**2-5.7**
....	**2-5.8**

Setting the scene

Space stations have allowed people to learn much more about space than was ever thought possible! They are amazing places that have a great capacity in a limited amount of room, not to mention that the visitors to space stations must float around! Have students work in teams to research space stations to discover what they are made of, how they function, what their purposes are, and how people use them.

Building the story

Ask the students to continue to work in teams. Have them brainstorm ideas and create a three or five scene story depicting a mission on the space station incorporating the information gathered during their research. Encourage students to elaborate on the characters, for instance, what kind of people would be conducting a mission on a space station?

Reflecting, sharing, and documenting

Have the students use the StoryVisualizer software to document their stories and then write a transmission from the space station to Earth:

- What does the transmission say?
- What is the tone of the transmission? Are the astronauts happy about a discovery, nervous about a problem, or just giving a routine update?
- How do people on Earth respond to this transmission?

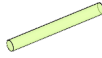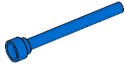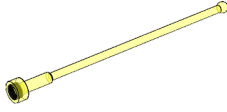

Sample model:
See "Constructopedia" for larger image.

DID YOU NOTICE?
Ask students to describe how a transmission is different from other forms of communication: What style of writing do they use? Document their responses.

Building the Story: Additional Ideas

Below are prompts to inspire even more activities:

1. The new colony is in trouble. Build a story about a rescue mission. Use the StoryVisualizer software, and document the rescue mission's success.

2. Imagine that people made contact with an alien species. Build a story about what happens next. Write a story about how the alien species and humans interact using the StoryVisualizer software.

3. Build a fictional life cycle of an alien and create a set of stages the alien goes through using the StoryVisualizer software.

4. Building a shuttle is a complex process. Research this process and build a story about how it is done. Use the StoryVisualizer software to create a set of instructions with details about building shuttles.

5. Space travel isn't easy! Build a story about astronauts travelling away from their space station. What do they find, how do they travel, and who and/or what do they meet? Write a report from the perspective of the astronaut detailing his/her adventures using the StoryVisualizer software.

6. Build your favorite part of a science fiction book. Using the StoryVisualizer software, write about your favorite part and explain its importance in the story.

7. Research an astronaut and his/her mission. Build a model of the craft and/or a significant event during the mission. Using the StoryVisualizer software, write a three or five scene story about the purpose of the mission and the results.

Sample model:
See "Constructopedia" for larger image.

Sample model:
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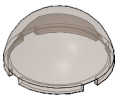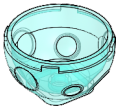
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