



## Episode Summary Season 1 – Space Racers

### Space Racers 101 SPCR 101

#### Animation 1: Where are We?

**Story:** Eager to emulate their favorite television hero, Captain Cosmos, cadets Eagle, Robyn and Hawk zoom off into space – only to encounter powerful solar flares that hurtle them down onto the surface of an unfamiliar planet. Stranded there until space conditions clear up, they must use their keenest observational and analytic skills to try and determine the composition of the soil and rocks, weather conditions and various other factors, hoping to figure out where they are in the Solar System and how to get back home... only to discover, in the end, that they've been back on Earth the entire time.

**Curriculum Focus:** Exploration and Observation of our surroundings, resulting in conclusions being modified as the episode progresses.

#### Interstitial 1: "Space News 1: Tour of International Space Station"

#### Animation 2: Starling DSV

**Story:** Sandpiper is returning from an outer space mission when her rockets fail upon re-entry, and she splashes into the ocean and sinks. The teachers and students try to plan a rescue mission, but all are too big for Coot's smaller scale prototype of a new deep space rescue sub – all except for Starling! The brave junior cadet submerges into the deep sea to trace Sandpiper's path way down to the ocean floor. But with Sandpiper's rockets disabled, Starling must somehow find a way to rescue her. Will she be able to use her observational skills – and maybe some discarded rocket boosters – to build an evacuation sled to bring Sandpiper to safety?

**Curriculum Focus:** Collecting data and drawing conclusions through observation.

#### Interstitial 2: "Space Quiz 1: Space vs. Oceans"

#### Character Bio: Eagle

## Space Racers 102 SPCR 102

### Animation 1: Total Eclipse

**Story:** With the first solar eclipse in 26 years looming, Stardust Space Academy is preparing for the “Eclipse Run,” a tradition wherein two random students are chosen to race to the Moon and back during the eclipse. As the big day draws near, two Racers are picked: Eagle and... little Starling?!! Eagle is both amused and aghast at the lack of competition. But Starling is determined to compete, so she engages Robyn to tutor her. Thinking the race will be a piece of cake, Eagle lets his guard down and begins to slack off... until the solar eclipse strikes, plunging the race into darkness – an event that overconfident Eagle did not bother to prepare for.

**Curriculum Focus:** Exploration and Investigation – we obtain information and learn new things about the world when we learn to ask the right questions in our search for answers.

### Interstitial 1: "MD Science Center 1: Scavenger Hunt Pt 1"

#### Animation 2: Fly Like an Eagle

**Story:** A deep space probe, designed to collect data in far off galaxies, prematurely reappears in our Solar System... on a collision course with the Sun. Headmaster Crane knows if it gets too close to the Sun’s gravity, the probe and all its collected research will be lost forever, so he assigns Eagle, Robyn and Hawk to intercept it and guide it safely back to Earth. The problem is, Eagle has a faulty heat shield that must be repaired, so at the 11th hour he’s scrubbed from the mission – leaving Hawk and Robyn to take off without their usual leader. How will they save the day without Eagle’s help?

**Curriculum Focus:** Exploration and Investigation – we obtain information and learn new things about the world when we learn to ask the right questions in our search for answers.

### Interstitial 2: Music Video 1: "Gravity"

#### Character Bio: Robyn

## Space Racers 103 SPCR 103

### Animation 1: Star Signs

**Story:** While everyone in school learns about our Solar System’s many constellations, and how to identify them by their unique shapes, Eagle is resistant. Studying is tedious; he’s got “a need for speed!” As always, Eagle would much rather be out soaring through space, exploring, seeing new things and going new places! But when a fellow cadet named Crow is missing, Eagle, Robyn and Hawk are tasked with trying to find him. Their main clue: a cryptic radio message from Crow in which he talked about “following Swan.” Who is this mysterious Swan, and where was he leading the missing Space Racer to? Our three sleuths must learn to ask the right questions if they ever hope to find him.

**Curriculum Focus:** Observation – Looking and listening to gather information and form hypotheses.

## [Interstitial 1: "MD Science Center 2 - Create a Constellation"](#)

### **Animation 2: Vulture's Volcano**

**Story:** Eagle, Robyn, Hawk and Raven are tasked by Headmaster Crane to learn more about planet Earth by studying an extinct volcano. The cadets are split into two teams: Hawk and Raven are the recon team assigned to a flyover and observation of a dormant volcano island, while Robyn and Eagle will man the mission center and analyze the observations and data transmitted. During their inspection, Hawk and Raven discover a secret operation run by Vulture and Dodo inside the volcano – to mine rocket fuel! The data coming in, however, shows that the volcano is no longer dormant... and it begins to erupt, trapping Vulture and Dodo. Will Robyn and Eagle be able to guide Crane and the Racers to the rescue of the greedy fuel makers?

**Curriculum Focus:** Collecting data and drawing conclusions through Observation.

## [Interstitial 2: "Space Art 8: Make Your Own Volcano"](#)

[Character Bio: Hawk](#)

## [Space Racers 104 SPCR 104](#)

### **Animation 1: Mars Canyon Race**

**Story:** It's time for a Stardust Space Academy tradition: the exciting annual race across Mars's rocky canyons, which happens once every Martian year (twice as long as an Earth year). Coach Pigeon is busy training and preparing the cadets, who aspire to be as good as the legendary all-time Mars Canyon Race champion, Swift Starlight. The race will span some difficult terrain that the cadets have not explored before: Valles Marineris, the red planet's grandest canyon of all. Eagle and Raven get into some serious boasting and taunting, each confident that he'll handily beat the other... which leads to a dare: why wait for the official race? They'll quietly meet after class at Valles Marineris and settle the bet to see who's faster. Without telling anyone – only Starling sees them go – they head off to do just that, which leads them both into some serious trouble.

**Curriculum Focus:** Exploration of new things and places as a way to broaden one's understanding of the world – in this case, the different world of Mars.

## [Interstitial 1: "Space News 2: All About Mars"](#)

### **Animation 2: Election**

**Story:** Seeing an opportunity to make some positive changes at the Academy, Eagle nominates himself as Class President... only to be challenged by Robyn, who also feels she'd make an effective leader. They agree that the only fair way to decide is to hold an election, so both candidates are soon off and running. Robyn takes a thoughtful approach, analyzing what the Racers can realistically hope to change, while Eagle makes brash, absurd promises – but coasts to victory based on his popularity. Problem is, now he finds he has to actually *deliver* on his crazy campaign pledges – including putting a second Moon in orbit

around the Earth, which leads to a near-catastrophe in space when the new “Moon” adversely affects the gravitational pull on Earth’s ocean tides.

**Curriculum Focus:** Experimentation, and the pitfalls of not asking the right questions as we attempt to prove or disprove our ideas and hypotheses.

### [Interstitial 2: "Space Quiz 2: Gravity"](#)

[Character Bio: Starling](#)

## [Space Racers 105 SPCR 105](#)

### [Animation 1: Ace Space Reporter](#)

**Story:** The Space Racers watch archival TV footage about the legendary Swift Starlight's last race, just before he inexplicably vanished and was never heard from again. Intrigued, Robyn decides to pursue the cold trail of his mysterious disappearance by interviewing several teachers and writing a story for the school blog. Robyn, Eagle and Hawk track Swift’s disappearance to a site on the far side of the Moon, where they find some leftover paint and a few other clues. After gathering more information back at campus, Robyn finally unravels the mystery of Swift Starlight – but will she be able to write her story and tell the world about it?

**Curriculum Focus:** Ongoing learning – developing hypotheses, model flexible thinking and being open to new information and unexpected discoveries.

### [Interstitial 1: "Space News 2: The Moon"](#)

### [Animation 2: Above and Beyond](#)

**Story:** After a spirited Orb-O game in which Eagle displays his usual athleticism (as well as a bit of showboating), Robyn does a scientific analysis of his “patented spin-thing-and-score move,” and suggests improvements. Eagle, however, is all about instinct – and wants no part of Robyn’s ideas. But when the team is sent to correct the course of an errant deep space probe that is unexpectedly heading towards certain destruction in Saturn’s rings, Eagle is faced with a choice of much greater consequence than in any Orb-O game. Will he embrace Robyn’s analysis, which just might save the day... or will the probe, and maybe the team, become lost forever in Saturn’s rings?

**Curriculum Focus:** Learning to be more effective through observation and experimentation.

### [Interstitial 2: "Music Video 2: Planets"](#)

[Character Bio: Headmaster Crane](#)

## [Space Racers 106 SPCR 106](#)

### [Animation 1: Eyes on the Prize](#)

**Story:** Headmaster Crane asks the cadets to study objects in the Solar System, and then share their findings with everyone else. But Raven doesn’t want to share... which leads the others to not want to share either! So Crane comes up with an alternate plan: a Solar System Scavenger Hunt, combining a race and a trivia game. The hunt will lead each cadet on their own adventure to various

locations throughout the Solar System, to solve riddles provided by AVA. And the final clue will give the winner a reward “more valuable than any of them can imagine”! Will the Racers solve the riddles? And what will their mysterious reward be?

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is important in scientific Inquiry.

### [Interstitial 1: "MD Science Center 3- Scavenger Hunt Pt 2"](#)

#### **Animation 2: Mine, Mine, Mine!**

**Story:** Eagle, Robyn and Hawk are having trouble sharing their belongings with one another, so they're each awarded one unique tool from Coot's workshop that they don't have to share with anyone else: Eagle picks grippy tires, Robyn picks night vision goggles, and Hawk picks a super-powerful drill. While on an exploration trip to the Moon, they get separated from the class and find themselves stuck in a collapsed cave. Will the Racers overcome their inclination to keep their favorite items to themselves, or will they find a way to collaborate and escape the cave?

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is often useful.

### [Interstitial 2: "Space Quiz 4: Tools"](#)

#### [Character Bio: Coach Pigeon](#)

## [Space Racers 107 SPCR 107](#)

### **Animation 1: Asteroids, Platinum Edition**

**Story:** After the Racers are assigned to study an asteroid, nefarious nogoodnik Vulture gives Hawk a secret mission: place a retro rocket on the asteroid to change its trajectory. Keeping any kind of secret from his friends makes Hawk nervous, and Eagle senses something is wrong. On the mission, the Racers try to calculate the asteroid's trajectory, carefully figuring out where to intercept it so they can study its flight path. After some trial and error they land on it, where Hawk attempts to complete his secret task...but his pals see what he's up to and get him to spill the beans. Eagle and Robyn are baffled. What's so special about this asteroid? And why does Vulture want to change its flight path? Analyzing the asteroid's composition, the cadets are shocked to discover that it's largely made of platinum! What's more, the new trajectory has altered the asteroid's course...aiming it directly at Vulture's private space station. Now how can they foil his greedy plans?

**Curriculum Focus:** Trying new things through experimentation and taking note of/learning from what happened.

### [Interstitial 1: "NASM 1: Asteroid Collection"](#)

#### **Animation 2: Lunar Base Blackout**

**Story:** In the middle of a training race on the Moon, all electronic signals suddenly go haywire, causing Eagle to suffer a rare loss to his friends. The

Racers find out that there was a power outage on the base, resulting in several malfunctions. Now cut off from all computer or electronic assistance – including AVA – the cadets have to rely on their own investigative skills to figure out how energy is generated on the Moon, discover why it's not working, and most urgently how to get the Moon base operational again. Will they be able to pinpoint the problem and restore power?

**Curriculum Focus:** Exploration and Investigation – forming theories and predictions to try to explain how and why things happen.

### [Interstitial 2: Music Video "Rocket Science"](#)

[Character Bio: Coot](#)

### [Space Racers 108 SPCR 108](#)

#### [Animation 1: Cranberry Crater](#)

**Story:** Coot introduces the class to a Spectrometer tool that analyzes the colors of light reflected off of objects in order to determine their composition. The cadets try aiming it at various surfaces and planets, and are excited about the results it provides. But when he points it toward the Moon, Hawk is surprised when the Spectrometer announces that a lunar crater is made of "Cranberry Rocket Fuel"! To further investigate Hawk's amazing finding, the Racers fly to the Moon where they meet Trogon, a Russian rocket scientist who's working in the crater. Will they be able to solve the riddle of Cranberry Crater together?

**Curriculum Focus:** Observation – use any of the senses or a combination of multiple senses to gain information.

### [Interstitial 1: "Goddard 1- How a Crater is Formed"](#)

#### [Animation 2: Dodo in Distress](#)

**Story:** Coot has designed a new satellite dish for closer observation of Jupiter, which the Racers have to place in orbit around the giant gas planet. Meanwhile, in an egotistical scheme to broadcast his new TV channel all over the Solar System, Vulture plans to hijack the satellite for his own purposes. So he secretly dispatches Dodo to follow the Racers, and then plant a piggybacking transmitter on the dish. The hapless assistant dutifully follows the cadets to Jupiter... but gets lost in one of its rings and is forced to send a distress signal. With the help of the dish, the Racers try to locate and rescue Dodo. Will they be able to save him from his own troubles, and will Vulture successfully hijack the new satellite to broadcast his megalomaniac messages across the Solar System?

**Curriculum Focus:** The right tools and the right techniques help us get the job done more efficiently.

### [Interstitial 2: "Space Art 2- Make a Telescope"](#)

[Character Bio: Vulture](#)

## Space Racers 109 SPCR 109

### Animation 1: Sick Day

**Story:** Aaaaah-choo! Eagle comes down with a cold, and has to stay back in Stardust Bay while the other cadets get to test a new, highly advanced solar engine system on an obstacle course close to the Sun. Quickly growing bored with his rock collection and other mindless distractions, Eagle decides to do some research about the solar engines and the test mission. He finds out that Mercury's orbit could block the sunlight and render the solar engines useless -- putting the cadets and teachers in danger! Will Eagle's frantic warning reach the test pilots before Mercury casts its shadow on the obstacle course?

**Curriculum Focus:** Observation – scan/analyze an object or event from multiple positions in order to capture different perspectives.

### Interstitial 1: "Goddard 2- Magnificent Sun"

#### Animation 2: Good Old Coot

**Story:** When Starling's beloved doll Mr. Rocket Baby goes missing, she learns that sometimes when things are hard to find, they're often right in front of you. A typical day in the life of Coot finds him constantly kept busy helping teachers and cadets with their respective projects.... explaining to Robyn how planets are discovered... installing a reflective mirror on the Moon so Pigeon and the cadets have enough light to hunt through a dark cave in search of polar ice... even helping Eagle and Hawk track down Raven in a game of tag. Even as Coot tries to help Starling find her missing doll, he has his own riddle to solve: finding new exo-planets. Is the clue to his major discovery hidden in some of the problems he solved earlier?

**Curriculum Focus:** Observation – scan/analyze an object or event from multiple positions in order to capture different perspectives.

### Interstitial 2: "Space Art 3: Make Your Own Planets"

#### Character Bio: AVA

## Space Racers 110 SPCR 110

### Animation 1: Robyn's Winter Break

**Story:** Winter Break is about to begin, and the cadets share their ambitious vacation plans: Hawk will visit 7,000 asteroids in seven days, Raven is going canyon racing on Mars, and Eagle will have fun ring diving around Saturn, but Robyn hasn't been able to make up her mind... other than to just go where her wings take her. In the last training race of the semester, however, she injures a wing and learns she'll have to recuperate at home during the whole break! With Crane and Coot's help, Robyn finds new ways of exploring interstellar space in the Space Academy Observatory. Who is going to have the most exciting Winter Break stories during show and tell?

**Curriculum Focus:** Exploration and Investigation – explore new things as a way to broaden ones understanding.

### Interstitial 1: "MD Science Center 4- Night Sky Telescope"

### **Animation 2: Three's a Crowd**

**Story:** Utilizing a high-powered telescope, Robyn and Hawk locate a particular destination in space and fly there to seemingly spend some time together without inviting Eagle along. This leaves their friend frustrated and upset at being left out. After a series of fruitless attempts to learn why they went without him, Eagle locates the pair via the same telescope, and decides to secretly follow... all the way to Jupiter's volcanic moon, Io, where he observes their activities. When Eagle accidentally reveals himself, Robyn and Hawk resent being spied on. The friends quarrel – but soon find themselves having to frantically work together to escape an erupting volcano. Later, safely back on Earth, Eagle learns why his friends left without him: they wanted to surprise him with a weird-looking volcanic rock from Io for his “secret” oddly-shaped rock collection!

**Curriculum Focus:** Tools can be used to do things better, and to do things that otherwise could not be accomplished at all.

### **Interstitial 2: "Space Quiz 5: Moons of Jupiter"**

**Character Bio:** Raven

### **Space Racers 111 SPCR 111**

#### **Animation 1: Mars Map Mystery**

**Story:** Studying at the Mars campus, Eagle, Robyn and Hawk stumble upon a mysterious old map that seems to reveal a network of Martian canals built by some ancient civilization. If they can find them it would be the discovery of the century, not to mention an A+ presentation in class. Their search takes them on a wild trek across the red planet, where they brave a massive storm, tornadoes, dust devils, and even an encounter with Sojourner, the original Mars rover – but no sign of any “canals”... only to discover that the map is a fraud, and the idea of Martian canals was debunked long ago. Eagle is downcast until he realizes that their search has yielded a discovery just as interesting: a dry river delta, evidence of Mars' watery past. No aliens, but it still a nifty presentation!

**Curriculum Focus:** Exploration and investigation, and learning that even when you don't find exactly what you're looking for, you can still make an exciting discovery along the way.

### **Interstitial 1: "MD Science Center 5: Mars Rover"**

#### **Animation 2: Sweet Spot**

**Story:** During an impromptu Orb-O game in space, a pass goes awry and sends the orb sailing toward the hull of a refueling station – and the light tap unexpectedly sends the entire station hurtling toward Earth! Chasing after it at top speed, Eagle and friends manage to stop the station. They check it for damage, and it appears to be just fine. Close call. Now all they have to do is put it back where they found it, and no one will be any the wiser... but when they try to put the station back in orbit, gravity pulls it right back toward the Earth! They try again, but this time, it falls toward the Moon! What's going on here? How can they get it to stay in one place like it did before?

**Curriculum Focus:** Exploration and Investigation – Forming theories and predictions to try and explain how and why things happen.

[Interstitial 2: "Music Video 3: Star Signs"](#)

[Character Bio: Eagle](#)

## **Space Racers 112 SPCR 112**

### **Animation 1: Careering Off Course**

**Story:** It's Career Day at the Academy, when the Racers are evaluated for their most suitable future job and given a chance to try it out. To their surprise, Robyn and Eagle find their roles reversed: Eagle is pegged with a "boring" post as a Scientist, and Robyn the "pointless" post of Test Pilot. The only one who's thrilled is Hawk, tabbed as a Fuel Taste-tester. Initially resenting their reversed assignments, Robyn and Eagle find they must team up in their new roles to rescue Starling when she and Coot's weather balloon are swept away by a weather phenomenon called "Cloud Suck." The Racers learn to appreciate each other's talents, seeing that their chosen pursuits are equally worthwhile. Hawk, meanwhile, learns that too much of a good thing can sometimes be not so good.

**Curriculum Focus:** Trying things through experimentation and taking note of/learning from what happened.

[Interstitial 1: Space Kids @NASM - How to Fly](#)

### **Animation 2: Drifting**

**Story:** While returning from an intergalactic school conference, Headmaster Crane and Vulture get caught in a powerful geomagnetic storm. With their propulsion and communications systems now rendered useless, they're left drifting aimlessly in space somewhere between the Moon and Earth. As the unlikely pair attempts to work together to solve their own dilemma, the worried Space Racers launch rescue teams to try and find them. The cadets search high and low, flying through Crane and Vulture's last known location in space, while Starling is assigned the important job of using the telescope to scan the stars for the lost rockets. Will they be able to collaborate and find them before they disappear in the vastness of space? And will Crane and Vulture get past their clashing personalities to assist in their own rescue?

**Curriculum Focus:** Exploration and Investigation – use prior knowledge and experiences to develop specific questions that will lead to information, solutions and answers.

[Interstitial 2: Music Video 6: "The Sun"](#)

[Character Bio: Robyn](#)

## **Space Racers 113 SPCR 113**

### **Animation 1: Hawk's Day**

**Story:** As part of his training, Hawk is unexpectedly assigned to lead a mission to the Moon. His job: to supervise the use of a new Lunar Elevator to lift a group of freighters carrying valuable Moon rocks up into space, and then lead the convoy

safely back to Earth. There's only one problem: Eagle – who's accustomed to being named Mission Leader – can't seem to stop offering unwanted advice and suggestions to his insecure friend, which leads them all into big trouble as their convoy is bombarded by a powerful meteoroid stream. The cadets learn that they must work together if they hope to overcome their obstacles.

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is often useful.

### [Interstitial 1: "NASM 3- Man on the Moon"](#)

#### **Animation 2: Satellite Starling**

**Story:** During a playfully competitive game of Orb-O above the Moon, Hawk and his friends accidentally damage the solar-powered Lunar Elevator just as it's lifting a group of rockets from the surface up into space – rockets who now find themselves trapped aboard a broken elevator. To make matters worse, thanks to the Earth's natural orbit around the Sun, they'll all soon find themselves on the dark side of the Moon. Can Coot and the Space Racers repair the elevator before everyone is plunged into extreme darkness and cold? And can Eagle, Robyn and Hawk rescue little Starling, who's been innocently playing with the missing part that Coot needs to effect his repair, but is now lost inside a massive ever-shifting maze of space garbage.

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is often useful.

### [Interstitial 2: "Space Art 4: Create Your Own Satellite"](#)

#### [Character Bio: Hawk](#)

### [Space Racers 114 SPCR 114](#)

#### **Animation 1: Fearless Flyers**

**Story:** The cadets are preparing flights of exploration for their vacation. While Robyn and Eagle pick Venus, Hawk and Raven plan something much bolder, where few Racers dare to go: they'll visit some unexplored areas of the Solar System's outer planets. While visiting the Academy map room to prepare for their trip, Coot shows them an ancient map of the outer planets with scary names for some unexplored regions: the Fog of Confusion, Giant Protector of Uranus, and the Evil Winds of Neptune. Undaunted, Raven and Hawk make it to the far side of the Solar System but encounter unusual occurrences, just as predicted by the map! Will they be able to identify the mysteries as natural phenomena, or will the "Evil Winds of Neptune" sweep them away into the darkness of space?

**Curriculum Focus:** Ongoing learning - developing hypotheses, modeling flexible thinking and being open to unexpected discoveries.

### [Interstitial 1: "Imagining Unexplored Space"](#)

#### **Animation 2: Hawk's Valentine**

**Story:** On Valentine's Day, Hawk receives a mysterious, old-fashioned card with no addressee... only a cryptic poem inviting the recipient to meet on the far side of the Moon. Who could this secret admirer be? Robyn, Eagle and Raven try to

help Hawk solve the mystery of the sender. Analyzing the card using their senses and investigative skills, they trace it back to Sandpiper! But who was the intended recipient...? And will the Racers bring the seemingly lovelorn couple back together for one more date?

**Curriculum Focus:** Observation – use any of the senses or a combination of multiple senses to gain information.

[Interstitial 2: "Space Art 5: Space Themed Cards"](#)  
[Character Bio: Starling](#)

[Space Racers 115 SPCR 115](#)

**Animation 1: Space Racer Storm Chaser**

**Story:** Watching the Earth from space, Eagle, Robyn and Hawk are enthralled by the beauty of their home planet as seen from a distance. But their wonderment is short-lived when they spot a huge storm front moving along a path directly toward Stardust Bay. Uh oh! Eagle and Hawk race back to school to alert everyone and pitch in with protective measures – but Robyn, ever curious, decides she wants a closer look at the dangerous hurricane. Promising to maintain a safe distance from the storm, she flies closer... and closer... and soon finds herself in deep trouble. The power of observation is the only thing that can save her now.

**Curriculum Focus:** Collecting data and drawing conclusions through observation.

[Interstitial 1: "MD Science Center 6: Wind Machine & Tornado Tube"](#)

**Animation 2: (N)ice Work if You Can Get It**

**Story:** Eagle, Robyn and Hawk overhear Headmaster Crane talking with Coot about top secret "Project P.S.P.", and how the mission will require a great quantity of ice. Eager to score points with their instructors, the three Space Racers take the initiative to search the Solar System to find whatever ice the Headmaster was referring to. Their efforts take them to other planets, an asteroid belt and a frozen comet... where they face frustration at their inability to get the job done, and learn that they need to use the right tools and work together to achieve their goals. When they finally make it back to Stardust Bay for the big event, the cadets are stunned to learn that "P.S.P." stood for "Pigeon's Surprise Party"... and the ice that Crane sought was simply buckets of ice cubes for the rocket punch!

**Curriculum Focus:** The right tools help us get the job done more efficiently.

[Interstitial 2: "Space Quiz 7: Sources of Ice in Solar System"](#)  
[Character Bio: Raven](#)

## [Space Racers 116 SPCR 116](#)

### [Animation 1: A Simple Re-Quest](#)

**Story:** While cleaning up space garbage in low Earth orbit, the Space Racers encounter a remnant from one of Stardust's earliest space programs: Quest One, a ghostly old space station that's long since been decommissioned and presumed lost. Snooping around the control room, they accidentally reactivate its dormant computer guidance system (QUESTY, a very early version of AVA) – and find themselves trapped inside as the station begins to re-enter Earth's atmosphere in a pre-programmed directive to self-destruct. Eagle, Robyn and Hawk frantically experiment with different tools as they attempt to turn off the program before it's too late, to save themselves and Questy.

**Curriculum Focus:** Tools can be used to do things better, and to do things that otherwise could not be accomplished at all.

### [Interstitial 1: "Space News 5- Space Junk"](#)

#### [Animation 2: Hiding on Hyperion](#)

**Story:** Eagle, Robyn, Hawk and Starling play a game of hide-and-seek around Saturn. Eagle quickly finds everyone except Starling, whose engines have frozen shut while she hides inside an icy cave on the moon Hyperion. Starling is cold, frightened, and marooned in the cave, but she can still relay her observations via radio. Using the minimal clues she's able to provide, the other Racers have to methodically search every single cave on the pockmarked moon to find Starling and rescue her. Will they be able to find her before their own engines freeze shut?

**Curriculum Focus:** Observation – inspect/investigate in detail in order to sort, group, classify or sequence according to size and other characteristics.

### [Interstitial 2: "Music Video 5: Moons](#)

#### [Character Bio: Headmaster Crane](#)

## [Space Racers 117 SPCR 117](#)

### [Animation 1: RoboCoach XL-5](#)

**Story:** Vulture fires Coach Pigeon and replaces him with the new RoboCoach XL-5, purportedly to modernize the training of future generations of Space Racers... but in fact, the robot was really built to spy on Coot's new Solar Sail invention. After finalizing an untested upgrade to the XL-5 to improve its spying capabilities, the relentless RoboCoach malfunctions in the gym – and forces Vulture to take part in an extreme training class. Will the Racers be able to save Vulture from the crazed RoboCoach, and ultimately get their beloved Coach Pigeon reinstated to his job?

**Curriculum Focus:** Experimentation – make predictions, perform tests, observe new findings and model safe behavior while experimenting.

### [Interstitial 1: "Goddard 3- Shoebox Challenge"](#)

### **Animation 2: Trail Blazers**

**Story:** The cadets and Coot are spending time in Jupiter's orbit to clean up some old space station & rocket junk for recycling, with the help of a new suction harpoon tool. When Raven discovers a new comet that's passing by, Coot suggests collecting a rock sample to learn more about it. Raven, without asking permission, "borrows" Coot's harpoon and shoots it onto the comet in order to collect the sample. The suction device attaches – but Raven accidentally gets tangled up in the harpoon cord, and is pulled at high speed towards Jupiter's giant red spot! Now the other Racers need to try and rescue him before the comet pulls Raven into Jupiter's atmosphere.

**Curriculum Focus:** The right tools and the right techniques help us get the job done more efficiently.

### **Interstitial 2: "Space Quiz 8: Comets, Meteors, Asteroids"** **Character Bio: Coach Pigeon**

### **Space Racers 118 SPCR 118**

#### **Animation 1: Dome Grown**

**Story:** To surprise Headmaster Crane when he arrives the next day, Eagle and friends are creating a garden under a glass dome on the Mars campus. But thanks to an accident while they're playing near Coot's workshop yard during their break, our heroes are relegated to clean-up duty and must collect mounds of junk from upended trash bins. When they finally get back to the garden, they're shocked to discover the vegetation drooping and wilting miserably. What went wrong?? The cadets launch an urgent investigation to figure out why the plants are failing, and to try to rescue them before Crane can see. Starting from the premise that these same plants would have thrived on Earth, they set about comparing the differences between Mars and Earth, hoping that will lead them to the answer.

**Curriculum Focus:** Collecting data and drawing conclusions through observation.

### **Interstitial 1: "Space News 4: Could We Live on Other Planets?"**

#### **Animation 2: Dance Lessons**

**Story:** It's time for the annual Space Dancing Show! Robyn is preparing for her dance routine when Starling stumbles in and wants to be part of the show. But her dancing skills are not quite there yet, so Eagle suggests she join Coot's Safety Team instead. In order to join the team, cadet Starling needs to learn rescue techniques and safety procedures, which she practices diligently. The day of the big Space Dancing Show, the cadets encounter danger from an incoming asteroid field. Will Starling be able to utilize her newly learned skills to lead the space dancers out of harm's way?

**Curriculum Focus:** Exploration and Investigation – Using prior knowledge and experience to develop specific questions that will lead to information, solutions and answers.

[Interstitial 2: "Space Art 6- 3D Robots"](#)  
[Character Bio: Coot](#)

**Space Racers 119 SPCR 119**

**Animation 1: Grounded**

**Story:** Eagle, Raven, Hawk and Robyn wait outside Headmaster Crane's office to be brought in before him. Clearly, they're all in big trouble. Eagle blames Raven, Raven blames Eagle; even Robyn and Hawk have their own opinions. As they quarrel, we flash back and learn how they got into this mess: the Racers are on a class trip to Venus not far from a creepy old abandoned space station, rumored to be haunted, in orbit of the planet. In a test of bravado, the kids screw up their courage to enter the dark, scary space station. What happens next becomes a matter of opinion and point-of-view: which of them accidentally set events in motion that caused the space station to re-enter Venus's atmosphere and break up? In separate vignettes, we see and hear what transpired from each Space Racer's POV — which couldn't be more different — until Headmaster Crane finally confronts them to deduce the truth.

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is often useful.

[Interstitial 1: "NASM 4- Walk Through Skylab"](#)

**Animation 2: Here Comes the Sun**

**Story:** Headmaster Crane, insisting that the Sun can rise from the West, makes a bet with a skeptical Vulture. The stakes? The loser of the bet must dress up as a silly mascot for the next Orb-O match and dance in front of the whole academy. Trying to help the headmaster, the Racers travel to different locations on Earth and the Moon, develop hypotheses about sunrises, and finally discover that the direction of the sunrise depends upon the rotation of a planet. So they fly to Venus -- which rotates clockwise -- but since they're not able to land there, cannot confirm their hypothesis. Will they be able to prove that the Sun indeed can rise in the West, and make Vulture dress up at the next Orb-O match?

**Curriculum Focus:** Experimentation – form hypotheses and make predictions while collaborating with a team and then sharing what one has learned.

[Interstitial 2: "Space Quiz 9 - Sunrise and Sunset"](#)  
[Character Bio: Vulture](#)

**Space Racers 120 SPCR 120**

**Animation 1: Starling: Space Racer!**

**Story:** Eager to become a Space Racer, Starling first has to pass several tests in order to be officially certified. Usually Coach Pigeon oversees the testing, but Vulture (who greedily wants to drill for fuel under the Spacenasium building) has replaced him as Chief Training Officer. Eagle, Robyn and Hawk offer to train Starling for the test, which Vulture will then have to administer. Since the Racers cannot use the Spacenasium to practice, they find alternate methods to help train Starling to simulate take-off speeds, maneuver Mars storms, land on icy surfaces

using retro-rockets, and dodge asteroids. Will they be able to prepare her for the ultimate test and allow Starling to fulfill her dream?

**Curriculum Focus:** Exploration and Investigation – Forming theories and predictions to try to explain how and why things happen.

### [Interstitial 1: "Goddard 4- Parachute Teamwork"](#)

#### **Animation 2: Titanic Trip**

**Story:** Eagle, Robyn and Hawk have a four-day weekend coming up, so they do some research to decide where to spend a camping holiday. After briefly consulting AVA, they conclude that Titan is the most Earth-like body in the Solar System... so off they head for Saturn's famous moon. Crane slyly asks them, while they're there, to please observe and note any small differences between Titan and Earth. Once they reach Titan, they realize that while there are a few similarities, the two places are vastly different! Liquid methane lakes, lava ice, a 16-Earth-day night, thicker atmosphere, freezing cold temperatures and lower gravity all make for an interesting science project... but an incredibly uncomfortable and stinky camping experience.

**Curriculum Focus:** Collecting data and drawing conclusions through observation.

### [Interstitial 2: "Space Art 7: Shoebox Diorama"](#)

[Character Bio: AVA](#)

## [Space Racers 121 SPCR 121](#)

#### **Animation 1: Starling Discovers the Moon**

**Story:** Young Starling makes a startling discovery one night: Earth's Moon seems to be smaller than the last time she saw it. Can this be? Worried, she begins to chart the state of the Moon every night, which only confirms her worst fears: the Moon is disappearing!!! When she rushes around like Chicken Little, frantically warning everyone, they're amused at her concern (and naïveté), and try to calm her down... but no one effectively explains how the Moon waxes and wanes over the course of each month. Determined to save what's left of the Moon from disappearing altogether, Starling decides to travel all the way up there herself and do what she can to avert this catastrophe.

**Curriculum Focus:** Collecting data and drawing conclusions through observation.

### [Interstitial 1: "MD Science Center 9: Day and Night on Moon"](#)

#### **Animation 2: Three Racers and a Baby Robot**

**Story:** While he's distracted one morning, Coot's new baby robot escapes from his workshop! Lost, it roams around the school campus until it adopts Robyn as its new owner. Dinky, as Robyn affectionately names the little bot, follows her around everywhere and displays a surprisingly diverse array of talents. As she and her friends spend more and more time with Dinky, they learn more about what it can do. Meanwhile, a worried Coot searches high and low for his missing

robot. When Robyn finds out who Dinky really is, will she be able to give up her new “pet”?

**Curriculum Focus:** Ongoing learning – developing hypotheses, modeling flexible thinking and being open to unexpected discoveries.

### [Interstitial 2: "Space Art 1-Draw/Build a Robot"](#)

[Character Bio: Eagle](#)

## [Space Racers 122 SPCR 122](#)

### [Animation 1: A Tight Squeeze](#)

**Story:** As Stardust Bay prepares to launch a Time Capsule into space, the students and teachers pick out their favorite items to include in the capsule’s 25-year journey. Vulture’s beloved Limburger cheese-flavored fuel bars, Starling’s favorite “My Lunar Pony” TV episodes, and some of Eagle’s coveted unusual rock collection are just a few of the capsule’s contents. Nostalgic to relive an old school tradition, the teachers and Vulture squeeze themselves into the crowded capsule, just for fun... when Dodo accidentally locks them all inside and triggers the capsule’s take-off sequence! The Space Racers must work against the clock to try and free the trapped Academy staff from the capsule, before they’re lost in space for 25 years.

**Curriculum Focus:** Experimentation – form hypotheses and make predictions while collaborating with a team and then sharing what one has learned.

### [Interstitial 1: "Goddard 4: Time Capsule Interview"](#)

### [Animation 2: AVA Retires](#)

**Story:** The Space Racers are exploring the Northern and Southern Lights, which are created through solar storms hitting the magnetic field of the Earth. But when AVA is unable to answer a simple technical question from the cadets (“Why there are more solar storms during the spring and fall?”), she shuts herself down to run a full self-diagnostic – leaving the Racers stranded without her guidance. In fact, without AVA all communications at Stardust Bay are also down. When she finally comes back online, Crane explains that we still don’t know why there are more solar storms in spring and fall; it’s not AVA’s fault that she doesn’t know. Will she accept this and go back online to guide the Racers home before they run out of fuel?

**Curriculum Focus:** Exploration and Investigation – We obtain information and learn about the world through exploring objects and investigating how things work.

### [Interstitial 2: "Space Quiz 10: Aurora Australis"](#)

[Character Bio: Robyn](#)

## [Space Racers 123 SPCR 123](#)

### [Animation 1: Vulture’s Statue](#)

**Story:** When Vulture demands that a larger statue of his glorious image be erected on the school campus, the funds must come from somewhere – and the

first casualty is the school's large telescope. After all, who needs a "stupid old telescope"? The Space Racers are soaring through space all the time, he reasons; they can see whatever they need to see with their own eyes. Problem is, once the telescope is gone, no one notices a massive comet on a dangerous trajectory for their space station on the moon! Now the cadets need to race against the clock to somehow avert the impending disaster, when some simple observation in advance would have made their job a lot easier.

**Curriculum Focus:** The right tools and the right techniques help us get the job done more efficiently.

### [Interstitial 1: "MD Science Center 7: Night Sky Telescope"](#)

#### **Animation 2: Follow the Water**

**Story:** The Racers objective is to detect and follow water as an indicator of life on Mars. Meanwhile, Hawk, preoccupied with an upcoming "Captain Cosmos" convention on Jupiter's moon Europa in which fans gather to act out their favorite episodes from the show, draws ridicule from the other Racers. But he finds support from a sympathetic Crane, and the two form a special bond that soon has Hawk sounding more and more like the inscrutable headmaster in his own daily conversations. Drawing even more ridicule from his friends over this, a dejected Hawk finds some other rockets flying to the Captain Cosmos play-acting event... and he decides to join them. Will Hawk find what he is looking for at the Convention, and what lessons will he learn?

**Curriculum Focus:** Ongoing learning – developing hypotheses, modeling flexible thinking and being open to unexpected discoveries.

### [Interstitial 2: "Music Video 2: Rocket Science \(Encore\)"](#)

#### [Character Bio: Hawk](#)

## **Space Racers 124 SPCR 124**

#### **Animation 1: Watch This Space**

**Story:** Eagle excitedly reports having observed an unusual, bright light in the sky. But when he brings the other Racers to see it too, there's nothing there. Did Eagle actually see something, or did he just make it up? Taking Headmaster Crane's advice, the cadets try to solve the puzzle of the bright light. Testing various hypotheses to explain the sighting, they conclude that Eagle must have seen a variable star, whose brightness changes over time but which is very difficult to detect. With the assistance of AVA's database and Coot's new software for predicting supernovae, they calculate the spot from where they might observe the next supernova from space. Eagle and the cadets fly there... but will they arrive in time to witness the luminous spectacle themselves and confirm Eagle's observation?

**Curriculum Focus:** Observation – monitor objects to detect changes over time.

### [Interstitial 1: "NASM 5- Sunspots at the Observatory"](#)

### **Animation 2: The Hawk Factor**

**Story:** Preparing for the Cloud Sprints Race, Eagle beats everyone else by a mile during a training run. Raven, hoping to cut corners so he can beat perennial winner Eagle, craves a new fuel that will help his engine achieve maximum speed. Under the pretense of making this improved fuel available for everyone, Raven gets Coot to experiment with new formulas in his lab... where they identify a fuel powered by space beans that gives them super-speed. Desperate to win the race – and thinking it will give him the edge – Raven switches labels on the fuels so that he's the only one using the new concoction. Will his sneaky plan help him win, or will it just give him a bad case of space bean tummy ache?

**Curriculum Focus:** Trying new things through experimentation and learning from what happened.

### **Interstitial 2: "Music Video 3: The Sun"**

**Character Bio: Starling**

### **Space Racers 125 SPCR 125**

#### **Animation 1: Hawk's On It**

**Story:** When Coot has to leave to attend a school board meeting, he entrusts a nervous Hawk to watch over the workshop for the afternoon. Doing his best to follow Coot's instructions that by utilizing the right tool you can fix anything, Hawk finds himself dealing with one emergency repair after another; cadet after cadet comes streaming in with bent wheels, dented wings, a misadjusted helmet, clogged rocket boosters, and other problems. Will Hawk be able to find the right tools for the repairs and get some help from his friends along the way?

**Curriculum Focus:** The right tools and the right techniques help us get the job done more efficiently.

### **Interstitial 1: "NASM 6: Build Your Own Rocket"**

#### **Animation 2: Ace Space Reporter (Encore)**

**Story:** The Space Racers watch archival TV footage about the legendary Swift Starlight's last race, just before he inexplicably vanished and was never heard from again. Intrigued, Robyn decides to pursue the cold trail of his mysterious disappearance by interviewing several teachers and writing a story for the school blog. Robyn, Eagle and Hawk track Swift's disappearance to a site on the far side of the Moon, where they find some leftover paint and a few other clues. After gathering more information back at campus, Robyn finally unravels the mystery of Swift Starlight – but will she be able to write her story and tell the world about it?

**Curriculum Focus:** Ongoing learning – developing hypotheses, model flexible thinking and being open to new information and unexpected discoveries.

### **Interstitial 2: "Music Video 1: Gravity (Encore)"**

**Character Bio: Raven**

## Space Racers 126 SPCR 126

### Animation 1: Communication Breakdown

**Story:** Things are suddenly going haywire around Stardust Bay: electrical outages, power surges, TV channels changing themselves. Coot is racing himself ragged trying to fix and tinker, but to no avail. A solar storm is the root of the problem, Headmaster Crane determines, and the Space Racers must travel to the Academy's communications satellite in space to attach a special shield. Problem is, along the way a series of misunderstandings leads to a complete breakdown in dialogue between Eagle, Robyn and Hawk... so there they are in space, trying to restore communications – and they're not communicating! If they hope to save the day, somehow they must find a way to get past their differences and work as a team.

**Curriculum Focus:** A Team Approach – Collaborating with a team and then sharing what one has learned is often useful.

### Interstitial 1: "MD Science Center 8 - Lego Communication"

#### Animation 2: Total Eclipse (Encore)

**Story:** With the first solar eclipse in 26 years looming, Stardust Space Academy is preparing for the "Eclipse Run," a tradition wherein two random students are chosen to race to the Moon and back during the eclipse. As the big day draws near, two Racers are picked: Eagle and... little Starling?!! Eagle is both amused and aghast at the lack of competition. But Starling is determined to compete, so she engages Robyn to tutor her. Thinking the race will be a piece of cake, Eagle lets his guard down and begins to slack off... until the solar eclipse strikes, plunging the race into darkness – an event that overconfident Eagle did not bother to prepare for.

**Curriculum Focus:** Exploration and Investigation – we obtain information and learn new things about the world when we learn to ask the right questions in our search for answers.

### Interstitial 2: "Music Video 2: Rocket Science (Encore)"

#### Character Bio: Headmaster Crane