

## The Adventures of a Bearded Dragon in a Multi-Grade, Special Needs Classroom

Six years ago, if someone had suggested that I bring a reptile into my K-5 classroom, I would have laughed at them. I teach students of various disabilities in a public school district. My classroom is an academic room and I consider it my job to ready my students for middle school. The shift in education has become centered around chrome books, document cameras, computer driven curricula and more work in reading and math. Even my students with cognitive impairments are expected to work out of the general education curriculum, but at a level comparable with their functioning level.

With state assessments and so much testing of students, I often thought that having a classroom pet would introduce more havoc and take time away from the mandated expectations as guided by the state.

I had just changed rooms in my building and found myself in a smaller environment than I had been used to. My school was bursting with a new population and because my student ratio was much less than a general education classroom, my room needed to be downsized. I began to change the environment of the room by painting jungle murals on the wall and later, I created an “ocean room” with a wall that mirrored the sea, complete with a killer whale, porpoise and octopus. I had a fish tank in the room with a Betta at the time, but I had poor luck in keeping a fish for any period of time.

One day, while purchasing dog food at a local pet store, I glanced into a glass aquarium and the sweetest, cutest, little face peered back at me. I had never seen a baby, bearded dragon before and this one was only about four inches long. She had a grayish body with a green back and face with orange triangles running down her back. As she placed her little feet against the glass, I was immediately smitten. My heart began to pound out of my chest as this little baby beckoned for my motherly instincts! I asked the store to hold her for me after paying for her and I rushed home to begin a computer search on the care of bearded dragons.

Photo credit: Big Apple Pets



The next day, it was almost coincidental that an ad for Pets in the Classroom popped up as an ad during my search. I was elated to find that the organization supported pets in the classroom and I quickly sent in my information. Shortly after, I received coupons and certificates that would allow me to purchase many of the items needed for my new “baby”.

When I told the students during our “Meet the Teacher” night that we would be getting a dragon as a classroom pet, they were ecstatic! A dragon sounded enticing. Our theme for the year was Pirates of the

Sea and a dragon fit right in. The students would be starting school in two weeks from that night and I began preparing for the beardie's arrival.

Planning for a bearded dragon was initially more complicated than I had imagined. I don't want to discourage anyone from getting a beardie but the initial cost can be overwhelming. That's why the Pets in the Classroom support was so helpful as I was getting started. As the bearded dragon grew however, there would be more costs to accommodate her growth so these things do need to be factored in if you want a dragon that will thrive and live for many years.

### **Planning for the Habitat of a Bearded Dragon**

While many pet stores will encourage you to buy a smaller tank for your baby beardie, you need to be aware of the fact that a full grown bearded dragon will require a 75 gallon tank when it reaches maturity. As the tank grows, the material list will also grow that the bearded dragon will need and use.

Bearded dragons can live a good 10 years if not longer and like any pet, if you are going to buy that cute, tiny lizard because it's adorable as a baby, please consider the fact that it will grow up to be between one and two feet long and it won't keep its baby look for long.

Initial through final set up can cost up to 500.00 once you get the lights, substrate, heat lamp, tank, driftwood and other tank items. These all don't need to be purchased right away. I purchased over a year. When I added up my costs however, I had spent quite a bit of money. Reptiles are exotic creatures so it is important that you factor their needs and care if you want your pet to be healthy and balanced. Due to the fact that my bearded dragon would need to come home with me on extended holidays and summer vacation, I needed a similar habitat in my home as transporting a 75 gallon tank between school and home just wasn't feasible.

A good habitat for a bearded dragon will include a glass tank that will allow for basking, walking around and sleeping away from the heat. A metal, screened top is necessary for circulation of air and from keeping the tank from getting too hot.



A light strip that provides the proper amount of UVB rays is a necessity. I use the ReptiSun 10.0 UVB light bulb in my tank and I prefer a bulb that extends across the entire tank. Therefore, the light strip I purchased (to house the bulb) runs across the top of the tank. This provides the necessary rays to my bearded dragon where ever she may go in the tank. I have the light toward the front of the tank and it illuminates the entire tank. The light is on a twelve hour timer. Twelve hours on and twelve hours off.



Substrate is a subject that isn't always agreed upon by those raising bearded dragons. Baby dragons are at risk of eating or inhaling substrate that is too fine and this can kill them. You may see many pet stores using the fake, green patio carpet that is washable in the younger dragon's tanks. I found that it was very difficult and messy to clean and unless I had a replacement available, I spent quite a bit of time trying to clean fecal matter and other contaminants out of it. Others choose to use paper toweling with their babies. I also didn't like this as it became soiled and wet too easily. I chose to use the Eco Earth coconut shell substrate that comes in a block and expands when wetted. I found that my bearded dragon enjoyed this substrate and I didn't worry too much about ingestion. As the bearded dragon grew, I mixed the Zilla Ground English Walnut substrate with the Eco Earth and my bearded dragon seemed happiest with this mixture. When she defecated, the substrate soaked up the mess and I could easily scoop it out of the tank.



Bearded dragons require heat lamps in order to bask and warm their bodies. All reptiles are cold blooded and cannot produce their own heat. I chose to use the ceramic heat lamps that screwed into a metal hood. This sits right on top of the metal screen and while it is very hot to touch, it does not melt the screen. I placed this on the right side of the tank and left a four inch space between the heat lamp and the light strip.



The intensity of the heat lamp will depend on the size of the tank. It is best to speak to your pet shop distributor to get the correct wattage but I use the 100 watt for my tank as my home and the classroom are both warm and it provides sufficient basking heat for my lizard.

After the tank, lighting and heating is taken care of, the inside contents of the tank need to be considered. I know that bearded dragons like to climb so I wanted to purchase some driftwood pieces to allow this. I also wanted to get a large enough bowl for not only drinking but for laying in if she chose to bathe. Food dishes for dried and fresh food was needed as well.

I am fortunate to have a local pet store that specializes in exotic pets. They sold driftwood and the special dishes equipped for reptile habitats. I purchased multiple pieces of driftwood and constructed a landscape in the tank that would allow crawling up to bask and the ability to lay below in the substrate when the dragon preferred cooler temperatures.



The water dish and food dishes needed to be heavy as full grown bearded dragons don't care what is in their way. They plow right through it!



I chose a larger water dish but I used small crocks for the food dishes. She couldn't tip them over and they kept the food clean.



I also decided to get a couple plastic plants to add to the ambience of the tank. I taped a background of trees and rocks to the back of the tank so that she'd have the illusion of living in the forest. I was now ready to get the bearded dragon.



## **Bringing the Bearded Dragon “Home”**

It was very exciting to walk into the pet store and pick up the baby dragon I had reserved a couple weeks prior. Determining the sex of the beardie usually takes time. The dragon needs to mature and grow before the sexual orientation can be determined. If you lift up the tail of a dragon, you will see a slit called the vent. The dragon expels its waste from the vent but it can also absorb water through the vent. When the dragon matures, you can determine the sex by observing either one bump above the vent that is centered or two bumps above the vent on each side. One bump is a female and the two bumps state that your dragon is a male.

Due to the fact that the baby dragon was so small, she was given a name that could be used for either sex. We named her Journey because she would travel between the school and my home during the school year. When Journey was about 4 months old, it became obvious that she was a female.

As I stated, Journey was very tiny when she joined the classroom. She fit in the palm of my hand and she was fast! The first couple of times she was placed on a table, she sprinted across and jumped to the floor. This could have killed her given the floor was tile and hard. Miraculously, neither jump injured her but it taught all of us that we could not place Journey on any high surface until she became acclimated to all of us.

Within two weeks, Journey began to respond to her name. She would approach the children on the floor and then spring away. She also indicated when she was ready to retire to her tank as she would go to a corner and place her snout in the crevice and lay there motionless.

The students were very excited about having such an exotic, classroom pet. They interacted with her through the glass throughout the day and took turns holding her gently. Initial lessons about care, the tank set up and keeping our hands sanitized took place the first two weeks of school. All of the students were deeply vested in having a classroom pet and they exuberantly volunteered for tank duty each week.

The days of school that were filled with work and testing became tolerable and even fun having Journey around. She would often “dance” in front of the window when the children would sit at the table her tank was housed on. They would put their hands up to the glass and laugh and talk to her. Journey became an incentive and reward in the classroom and facilitated on task behavior and also taught the students responsibility.



Journey grew quickly. She reached one foot in length by the time she 7 months old and it was approaching spring. I placed a hammock under her basking light in the tank and she enjoyed laying on this. The problem was she chose to constantly defecate on the hammock, making it difficult to clean. Eventually, the hammock was removed and her driftwood collection grew; allowing better basking time.

### **Personality and Intelligence**

Some people may look at a bearded dragon and assume that it is a creature without thought processes. I never imagined that a reptile could bond with its owner. Journey proved me wrong. She recognizes her name and will turn her head and react when she hears it. She also recognizes me as her owner and will come to me when she is called. If someone she doesn't know holds her, she will turn and watch me the entire time as if making sure that I am not going to leave her with someone she doesn't feel familiar with. She loves to be pet by the students. She enjoys having her chin stroked, her feet rubbed, the top of her head pet and the sides of her mouth swept with your fingers.

When she was younger, Journey would sit on my shoulder or cling to my shirt and walk around the school with me. As she has aged, she is more restless and doesn't want to stay stationary like that and she often tries to jump off of me. Therefore, I no longer carry her around in this fashion.



## What “They” Don’t Tell You!

There are some things about bearded dragons that aren’t always shared...

1. Bearded dragons love to poop in their water!
2. Bearded dragons like to soak in warm water at least 1x a week.
3. Bearded dragons can be picky eaters.
4. Bearded dragons are messy, messy, messy!
5. Bearded dragons appreciate some humidity in their tank.
6. Some bearded dragons will hibernate.
7. Some bearded dragons will lay eggs, even if they haven’t mated.
8. Bearded dragons like to poop on you!
9. Bearded dragon poop smells like the worst thing on this planet!

Journey is what our class considers to be an unusual beardie. I chose her specifically because she was missing the tip of her tail. People often think that you can house bearded dragons together. There is a hierarchy among animals in the animal kingdom and dragons exhibit this if housed together. Journey had her tail bitten off when in the pet shop by a dragon that was dominant. When you see dragons laying on top of each other, it is not to keep warm. It is the domination of dragons with the top one being the most dominant.

Since my classroom is made up of children who struggle with disabilities, I thought it was only fitting that Journey have a type of “disability” that would apparently not stop her from flourishing and growing as a lizard. This became the topic of conversation multiple times with the students and these talks also encouraged the kids to keep trying in all things that threatened their confidence. Journey was the perfect example of overcoming a disability.

Journey is also unusual because she hibernates every winter. Come November, she stops eating and begins digging into her thick substrate. She positions herself at the bottom of the tank, under the driftwood and begins to sleep more hours than she is awake. Mid-November, she hides in the back of the tank and sleeps for 4-5 months. She may shift her position a couple times but she never comes out from the back of the tank until March or April. If the winter is longer, she sleeps longer. This certainly saves me money in food for her but she becomes less exciting to the children. They eagerly await her awakening in the spring so they can again interact with her. In case she chose to awaken and begin eating, I kept the lights on the timer, never turned the heat lamp off and kept dried, dragon food in her crock and fresh water in her bowl.

Journey also lays eggs after she awakens in the spring. They are empty, unlike non-fertilized chicken eggs. They are about the size of an almond, whitish-tan in color and hollow inside. This always excites the students and it becomes a huge science topic that leads into animal reproduction, live birth vs. egg birth and what creatures tend to their babies and which do

not. Typically, reptiles like Journey will lay their eggs close together in a “clutch”. My beardie does not. She runs around her tank and lays them all over the place. She doesn’t try to bury them either.



### **Driftwood, Molting, Diet and More!**

When stacking the driftwood, make sure that the top piece is flat. Dragons love to spread out on flat surfaces while heat basking. Be sure to allow for plenty of space between the dragon and the screen holding the heat lamp. Dragons can get burned from the heat and you want to make sure their head isn’t touching or too close to the top.

Your beardie will molt at least one time a year, if not more. They molt (lose pieces of their skin) in sections or pieces. The dragon will act irritable during a molt which is normal. Extra soaking time in warm water will help expediate the molt. Never pull the skin off of the body as that would be comparable to pulling a scab off of a sore. Let the molt occur naturally. After Journey molts, she appears to gain more “armor” or poke areas in her skin. As you can see in the photo, she has them around her face and sides. Dragons will also change color when molting. She now has more orange on her face and less on her body.

Diet is important for your bearded dragon. Crickets are the main source of protein. I feed the crickets a calcium rich food and therefore, my dragon gets her calcium through the crickets. She doesn't like food that has the calcium powder sprinkled on it. I do feed her superworms and freeze dried mealworms. I don't feed live mealworms because they have a very hard outer layer and I've read articles of them tunneling into the inner parts of the beardie's head or body. Superworms are big and fat and apparently tasty, according to Journey!

Aside from crickets and superworms, fruits and vegetables should be the dragon's main food source. Greens such as mustard, collard and turnip provide calcium and the nutrients the dragon needs. Do not feed lettuce or spinach as the green. If you want to add a little chopped up with the three main greens, your dragon will enjoy it but they don't provide the necessary nutrients like the super three mentioned above. Journey also likes raspberries occasionally, banana and strawberries but these need to be chopped into small pieces. I've also given her canned peas and carrots as a treat (not main food source) and cooked squash which she enjoys.

It is important that you don't collect bugs from the outdoors to use as food as many people spray their lawns with pesticides and you can't be sure you are getting a bug that hasn't been affected by a contaminant.

Always keep fresh water in the bowl, even if you never see the dragon drinking it. They do drink from their mouth, as well as through their vent. When my dragon is absorbing water through her vent, she turns her body into a round disc and you can see her abdomen go in and out. Unfortunately, water also stimulates bowel movements so be ready to clean the water right away if this happens! I soak Journey in the tub, sink or she has a bowl I use in the classroom. She will stay in the bowl until she is ready to get out and will then climb out. I always put her under her heat lamp on the driftwood after soaking to keep her from getting cold.





The picture above shows Journey while I am cleaning and re-organizing her tank. I scoop out debris weekly and put in fresh substrate. I don't replace substrate completely, rather remove visible waste and leftover food.

### **Food, Glorious Food! More about Diet.**

Journey is a picky eater. I know many bearded dragons that are not! I keep Zilla pellets for juvenile bearded dragons in her bowl at all times. She prefers this smaller pellet and does not like any other prepared dragon food. Your dragon may like other food varieties that stores offer. Each dragon is different.



As mentioned before, Journey loves super worms and crickets. It is important that when you bring a baby dragon home that you cut the crickets in half (or get small crickets) until the baby gets used to eating bugs. Never give baby dragons super worms or meal worms. When your dragon gets older, you can give more protein choices. I buy freeze dried meal worms (made for chickens) at my local grocery store and Journey loves them! I mix them with the Zilla dried food and she always has food to eat if I don't have time to get crickets or I don't have vegetables available for her. When buying crickets, I buy 50-100 large crickets to last her about 1.5 weeks. You can tong feed your dragon so the crickets aren't running around the tank. Crickets that aren't eaten hide in the driftwood and make pleasant music through the day and night! They don't bother Journey because I always have dried food out in her dish and they come out at night and eat that.

Be aware as well that crickets aren't the smartest insect on the planet. They will migrate toward the water dish, jump in and drown. They won't have the ability to figure out that they can exit the water dish. This means that sometimes, you will awaken to a stinky, gross, water dish that will need to be emptied and replenished.

All of the information about keeping and raising a bearded dragon that I've shared with you was taught daily to the students in the classroom. My students can tell you the brands of substrate, food and types of greens and protein sources that are appropriate for a bearded dragon.

The students ask to have Journey taken out of the tank daily so they can interact with her through talking and petting her. She will often stick her tongue out while they are petting her and "lick" them which excites them a lot!

### **Determining the Teaching Factor**

I am so glad that five years ago, I passed by a tank in the local pet store to see a darling baby staring up at me. Journey has brought such enrichment, joy and learning opportunities to the students in my classroom. Her presence has allowed the students to learn responsibility, compassion and most importantly, information about reptiles and other classes/species of animals.

She has proven to me that reptiles do love attention and enjoy being part of a classroom. While she isn't a cuddly creature, she is well loved by the children (and me) and her appearance and stature demand respect from those that handle her.

It was one of my best decisions to bring a bearded dragon into my classroom and my home. She has certainly influenced all of the people who have had contact with her and I can say without hesitation that I love my bearded dragon!