

# Build A Home for Fish

## Classroom Aquarium

### Outcome:

1-1-14: Show respect for living things in their immediate environment.

**Materials:** See Page 2, Step 3: Equipment.

### Teacher's Instructions:

- 1) Follow the directions on pages 2-4 to set up a classroom aquarium. Students should help you with this activity. Explain the steps of this process, stressing how the class is caring for fish by setting up a stable aquarium and acclimatizing the fish before adding them to the water.
- 2) Through caring for the fish, students will learn how to show respect for living things in their immediate environment. You may wish to set up a schedule to determine who is in charge of feeding, cleaning, monitoring, testing the water, etc. A two week checklist and sample schedule that may be posted near the aquarium are provided on pages 5 and 6.  
*\*\*\*Teacher Tip: Laminate pages 5 and 6. Use a dry erase marker on the checklist and student tracking sheets. After two weeks, wipe the laminated posters and re-use!\*\*\**
- 3) Provide each student with a copy of page 7. Inform students that this page is the front cover of their fish journal. Ask students to colour and/or decorate this page. The journal can be kept in a duotang, folder or binder.
- 4) In this journal, students will record how they care for fish in the aquarium and how they feel about caring for fish (and other living things).
- 5) As students complete worksheets from other fish activities they can add them to their fish journal. For example, they can add the worksheet entitled 'Can you take care of us?' found under outcome 1-1-08.

# Classroom Aquarium

1) Select a location for the aquarium. Ensure the area is draft free.

2) Obtain an aquarium - one that is as large as you can manage.

3) Purchase the following equipment:

- filtration system  
Recommended: under-gravel filter.
- air pump and plastic tubing
- thermometer
- aquarium gravel
- rocks (approved for aquariums)
- plants (real or fake) and ornaments
- food (type depends on kind of fish)
- dip net(s)
- tank scrubbers suitable for your aquarium  
Note: some scrubbers cannot be used on acrylic tanks.
- water conditioner (to remove chlorine) [optional]
- water quality testing kit (to test for ammonia and nitrite levels)

4) Setting up the aquarium.

- Place the aquarium on a sturdy surface in a draft free area.
- Rinse/wash (without soap) gravel, rocks and ornaments.
- Set up the filter.
- Add a layer of gravel (about 5 to 8 cm deep).  
Gravel should be sloped from the back to the front so it is deeper in the back of the aquarium.
- Decorate the tank with rocks, plants and ornaments.  
Make sure the rocks and ornaments cannot fall over. Use the gravel to stabilize them.
- Fill the tank.  
Ordinary tap water may be used as long as you dechlorinate it by letting it sit for several days or by adding water conditioner. Add the water slowly so you do not disturb the gravel and ornaments.
- Run the aquarium and filter for several hours (12 to 24 hrs).  
This will oxygenate the water and stabilize the temperature. If possible, let the tank run for a week before adding fish.

# Classroom Aquarium

## 5) Adding fish.

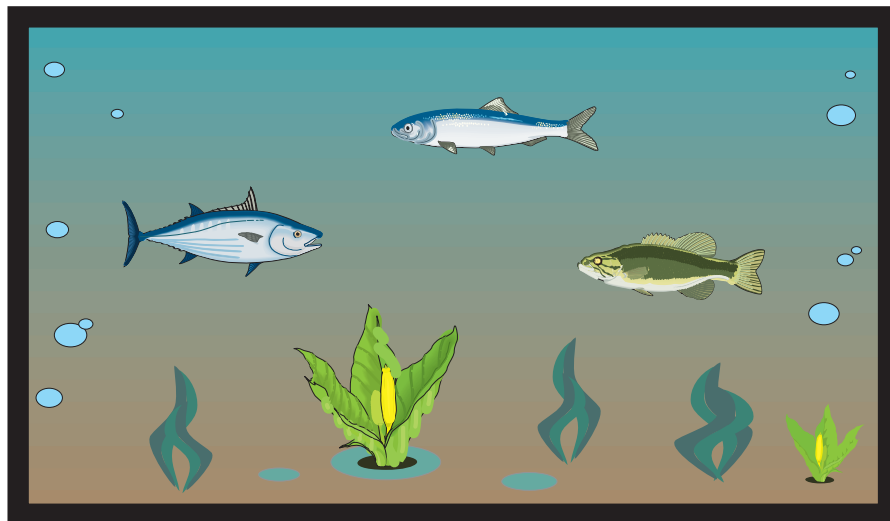
- Test the water for ammonia and nitrite levels. When both are at zero or very close to zero, it is safe to add fish.
- Determine how many fish the aquarium can hold.  
**Rule of thumb:** 1 fish per gallon (4 litres) of water in the tank.
- Select and purchase a couple of freshwater fish. If you would like to use Native Manitoba fish then you must obtain a Live Fish Handling Permit from Fisheries Branch (204-945-6640).  
Be sure to select fish that are compatible with each other. You may wish to research a variety of fish before deciding which ones to purchase.
- Acclimatize the fish before adding them to the aquarium.  
If need be, put the fish in a closed plastic bag with the same water that they were in when they were bought with a good pocket of air trapped in the top of the bag (to keep the water oxygenated). Float the bag in the aquarium for 10 to 15 minutes. Open the bag and carefully add a cup or two of water from the aquarium. Wait 5 more minutes and then gently release the fish into the aquarium.
- Add more fish over the course of a few days or a few weeks.  
This will allow the filter system to keep up to the waste produced by the fish. It is safe to add more fish when ammonia and nitrite levels are zero. These levels will increase with the addition of fish but they will eventually return back to zero and then more fish can be added.

## 6) Taking care of the fish and maintaining the aquarium.

- Feed the fish.  
Use the appropriate food for each type of fish. Feed them once a day. Do not feed them too much - if they cannot eat all of the food you give them in 3 to 5 minutes then you have fed them too much. Most fish can go without food for a few days (i.e. weekends).
- Check the water quality.  
Check temperature, nitrite levels, ammonia levels, pH, hardness, etc.
- Remove any algae growth.  
Use the tank scrubber to remove algae from the sides of the tank.
- Trim or replant live plants.
- Change the water.  
Change at least 10% to 15% of the water in the aquarium every two weeks. Dechlorinate the new water and make sure it is the same temperature as the water in the aquarium before adding it. *Tip: Keep 1-2 litres of dechlorinated water on the counter near the aquarium to be used as needed.*
- Watch fish behaviour to check for signs of disease or stress.  
Ragged fins, loss of scales or appetite, fins held tightly to the body, swimming with the head up or down, or gulping for air at the surface are all signs of fish disease or stress. Identify and treat these signs as early as possible.

## TIPS

- Never use soap or detergent to clean an empty aquarium. Simply rinse with warm salty water instead.
- Never move a tank with water in it. The sloshing water may put excessive pressure on the seals and cause the tank to leak.
- To reduce the amount of algae growth, buy an algae eater or do not place the tank in direct sunlight.
- Fish prefer stable environments. Attempt to keep the parameters (temperature, pH, etc.) at stable levels rather than attempting to change the parameters so they fit perfectly within the fish's preferred range.



# Two Week Fish Care Calendar

## Checklist

**WEEK 1**

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	<input type="checkbox"/> Change the water. (10-15%) <input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.
<b>WEEK 2</b>	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.	<input type="checkbox"/> Feed the fish. <input type="checkbox"/> Check the water quality. <input type="checkbox"/> Remove algae growth. <input type="checkbox"/> Watch fish behaviour.

# Two Week Fish Care Calendar

## Student Tracking Sheet

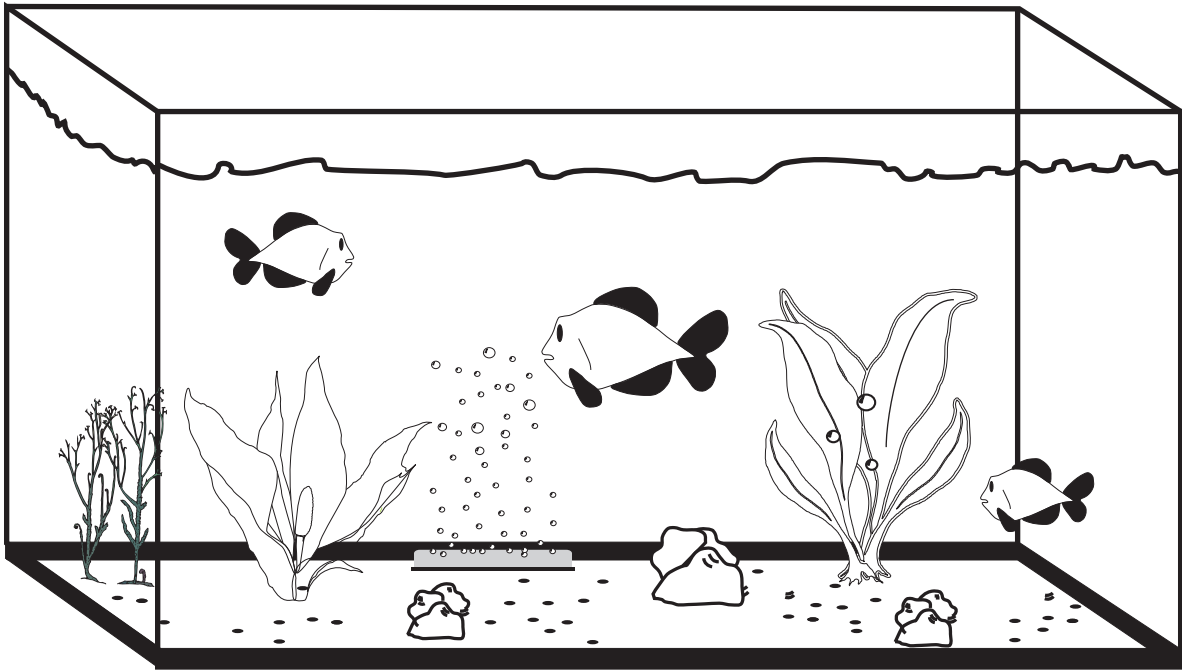
**WEEK 1**

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____
<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>
_____	_____	_____	_____	_____

**WEEK 2**

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____	<b>Names:</b>  _____
<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>	<b>and</b>
_____	_____	_____	_____	_____

# My Fish Journal



NAME: \_\_\_\_\_