

# Fish Fight!

A Regional Science Consortium  
Education Initiative



Subject: Science

Grades 3-8

Time: 20-60 minutes

Number of Participants: 2-10  
(for larger groups, split in half)

## Regional Science Consortium

# Fish Fight!

### What is Fish Fight?

Fish Fight is a game that allows students of all ages to learn and apply various scientific concepts by becoming a fish! Fish Fight can be played with large or small groups and has multiple variations to address different topics. Each player will act as a fish attempting to travel from one end of a stream to the other. Sounds simple right?

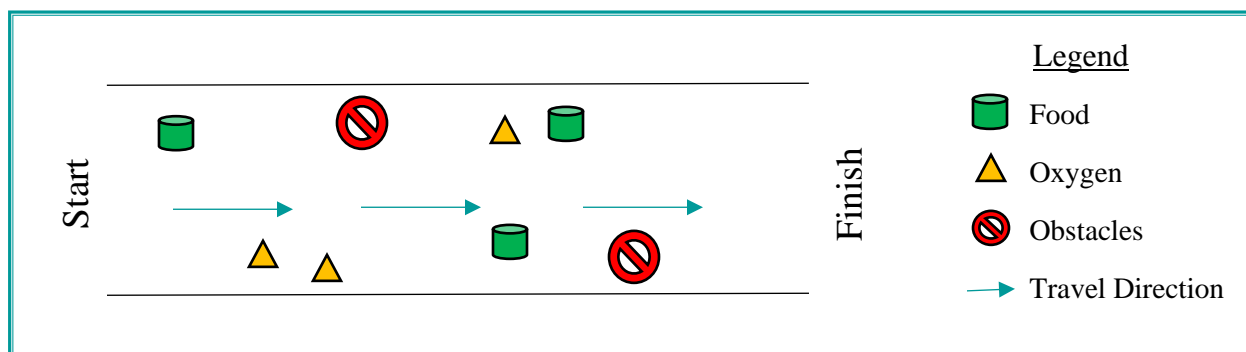
### Background:

Organisms face a number of different challenges within their natural environments. These include predators, physical barriers, and competition for resources. As climate changes around the world, these challenges are changing too!

For this activity you will take on the perspective of a fish and fight through various challenges to reach the end of the stream. Be sure to examine how each challenge relates to fish and climate change.

### To Begin:

1. **Create a stream!** This can be done using a variety of common materials such as rope, tape, and blankets. Your stream can be as simple as two straight pieces of rope laid parallel to each other on the ground with a few feet of empty space in between, or a complicated masterpiece with wide and skinny sections that winds throughout multiple rooms. Feel free to alter your stream at any time to better suit your needs or adjust difficulty level. You can set up your stream in a large open space inside your house or the back yard.
2. **Add your resources!** To make your journey downstream more realistic, you will need to represent food, oxygen, and obstacles with everyday items. For food and oxygen, we recommend small items like poker chips, bouncy balls, sticky notes, rolls of tape, or plastic cups that can be distributed within your stream. A variety of items or colors is useful, but not required. If you have multiple color options, considering making oxygen one color and food a different color to make the game more understandable. Obstacles can be created from almost anything! Place boxes, chairs, blankets, or even other players into the stream as barriers to your progress.



## Game Modes:

Play game modes alone or combine them to create a unique challenge. We recommend starting at the beginning with one game mode and adding each mode as you progress. All players should start their journey downstream at the same time. Don't forget to invite all members of your household to play so the game is more fun, interactive, and competitive!

### 1. Beginner

**Stream set-up:** Start with a clear stream and add a large number of food and oxygen items (at least one of each per player).

**Rules:** Each player collects one food item, and one oxygen item before reaching the end of the stream.

### 2. Resource Competition

This game mode works best with 2 or more players.

**Stream set-up:** Reduce the amount of food and oxygen available in the stream so there is no longer enough for every player to collect one of each.

**Rules:** Players will race to collect one food item and one oxygen item before reaching the end of the stream.

### 3. Predators

This game mode requires at least one additional person. If you already have multiple players, designate the oldest player(s) to be the predator.

**Stream set-up:** The predator must pick a location on the outside edge of the stream to stand with their feet together. Once a location has been selected it cannot be changed (sticky feet is our rule!).

**Rules:** Fish must avoid predators and make it to the other end of the stream while still gathering the necessary oxygen and food to survive. Predators can only bend from the waist up and reach their arms out to catch prey. If a predator falls into the streams, they cannot tag prey for at least 10 seconds. If the predator fails to catch at least one prey, they lose the game. If tagged by a predator, the player must step outside of the stream

and stand next to the predator that caught them. They are out for the remainder of that round but can rejoin in the next round.

#### 4. Rapids

This game mode requires at least two players. If you already have multiple players, designate the oldest player(s) to be the rapid.

**Stream set-up:** Select at least one player or nonplayer to act as a rapid in the stream. Rapids will select one section of stream which they will walk back and forth across at a consistent speed. Once a rapid has selected their location, they cannot move or alter their location or speed.

**Rules:** Players must fight their way downstream while avoiding rapids and still obtaining the oxygen and food they need to survive. If a player comes into contact with a rapid, they must go back to the start and try again. Rapids cannot reach towards players or alter their speed or path to contact players.

#### 5. Invasive Species

**Stream set-up:** Select one or more players to be invasive fish species. All other players will be native fish species. Enough food and oxygen should be present in the stream for all players to have one of each. Predators can be present.

**Rules:** Invasive fish can have many advantages over native species. Pick one or more of the following for your invasive players!

- Invasive fish can consume more food and/or oxygen than native fish (2x, 3x, or unlimited).
- Invasive fish get a 5 second head start over native fish.
- Invasive fish cannot be caught by predators.

#### 6. Create Your Own!

Brainstorm additional challenges fish are faced with as the climate changes. How can you represent these in your stream? How do they affect your ability to reach the end?

Share your fish fight photos with us on social media and let us know what creative game rules you may have developed!

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