

# Catch the Hatch with ATU's

## Your students will be able to predict

- 1 When the eggs will hatch
- 2 When the fry will swim-up and look for food.

## How it works

- When eggs are laid they have **0 Thermal Units**.
  - The temperature of the water surrounding the eggs is measured (for example the average temperature might be 8°C).
  - After one day (24 hours) the eggs have **accumulated 8 Thermal Units**.
  - On the second day the temperature of the water is measured (it may be 9°C).
  - These two totals are combined - now the eggs have **accumulated 17 ATU's**.
  - We then continue. . . on the third day the temperature of the water is 7°C. Now the eggs are **24 ATU's**.
- This measurement is taken **every day** at hatcheries for the duration of their care.


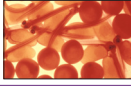

## We Calculate

### Accumulated Thermal Units (ATU's).

1 thermal unit = 1 degree Celsius.

ATU's = the degrees accumulated over one day.

## ATU's predict each stage of development

| Stages of Development   |  | Coho ATU  | Chum ATU   |
|---|--|-----------|------------|
|  | <b>Eyed eggs</b> ( <i>delivered to schools</i> ) | 220       | 325        |
|  | <b>Hatch</b> ( <i>eggs become alevin</i> )       | 400 - 500 | 475 - 525  |
|  | <b>Fry</b> ( <i>swim-up and look for food</i> )  | 700 - 800 | 900 - 1000 |

- Prepare a chart to continue measuring the ATU's while you are rearing them in your classroom.
- When the eggs are delivered to your school, the ATU stage for that day will be recorded for you.
- After the eggs arrive take your water temperature every day and enter it on the chart.
- Estimate weekend temperatures for Saturday and Sunday, then on Monday add them to your chart.

## Example ATU chart

| Date  | Today's Temp. | + Yesterday's ATU | = Today's ATU |
|-------|---------------|-------------------|---------------|
| Jan 5 | 9 C           | 235               | 244           |
| Jan 6 | 10 C          | 244               | 255           |
|       |               |                   |               |