

05/20

limiting Factors

#5

**Quietly read the article on your table**

Please do NOT write on the paper



**Learning**

**target:** I can identify biotic and abiotic factors that limit population growth and demonstrate my understanding with an example from the Frog pond

Every population has the potential to increase in size. You can calculate the potential for population growth for any organism

Write this in your journals



**Reproductive potential:**  
The theoretical unlimited growth of a population over time.



**Learning**

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## What information would we need to predict the reproductive potential of the Chorus Frog ?

4



How many egg clutches?

70



How many eggs in a clutch?



How often are eggs laid in a year?

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 320


640



### Learning

**target:** I can identify biotic and abiotic factors that limit population growth and demonstrate my understanding with an example from the Frog pond



**Life cycle:  
female lays eggs fall-spring**

**Female lays clumps of 10-90  
eggs. She can lay 4 clumps per  
season.**

**Tadpoles hatch 2 weeks later**

**Metamorphosis occurs 2-3  
months later**

**Young frogs breed that winter-  
spring.**



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Predict the reproductive potential of the Chorus frog. (population at the end of a year)

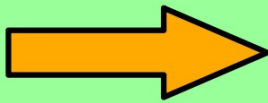
640 Frogs



**Learning**

**target:** I can identify biotic and abiotic factors that limit population growth and demonstrate my understanding with an example from the Frog pond

Clearly this does not occur? Last year there were 200 tadpoles and just 4 frogs



**Learning**

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Last year we counted 200 tadpoles at the beginning of the season

What are the limiting factors that prevent the frog population reaching its reproductive potential?

Biotic	Abiotic
predators Food supply	Temp water low DO low water



#### Learning

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## Field Study Visit # 7

Today is your last pond visit before you begin to write up your findings. you need to be sure to take good observation notes today.

Air temp: table 6

you need to sketch the pond today



### Learning

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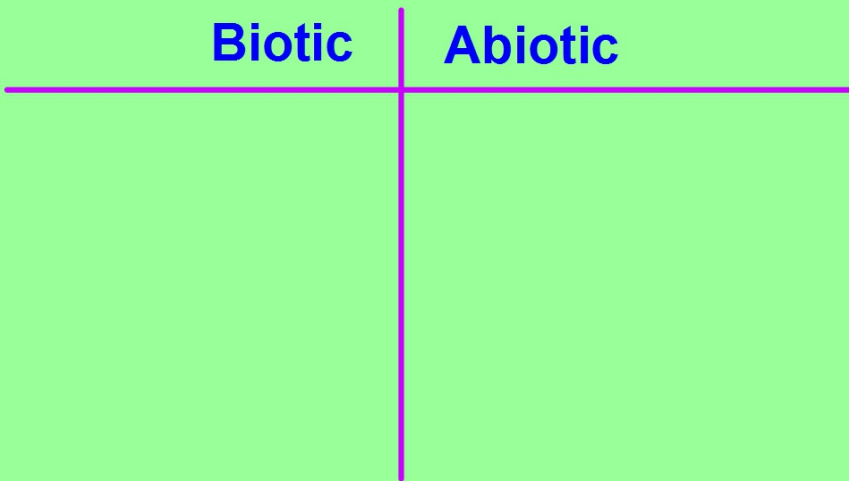
*Limiting Factors of Frog Population?*

***BIOTIC***

***ABIOTIC***

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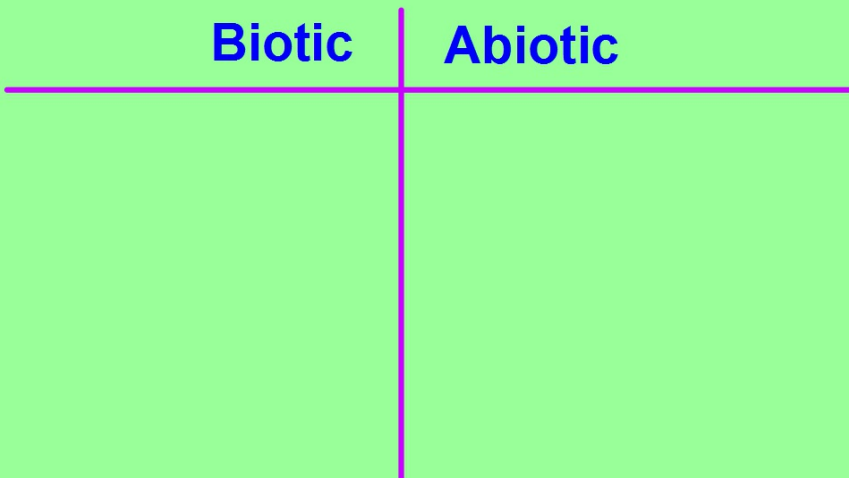
**Limiting factors: What are some of the possible factors that might limit the growth of a population?**



**Learning**

**target:** I can identify biotic and abiotic factors that limit population growth and demonstrate my understanding with an example from the Frog pond

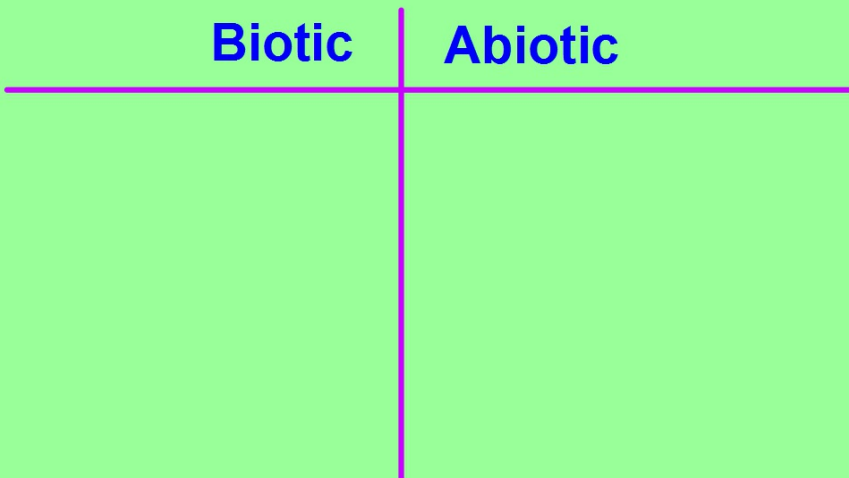
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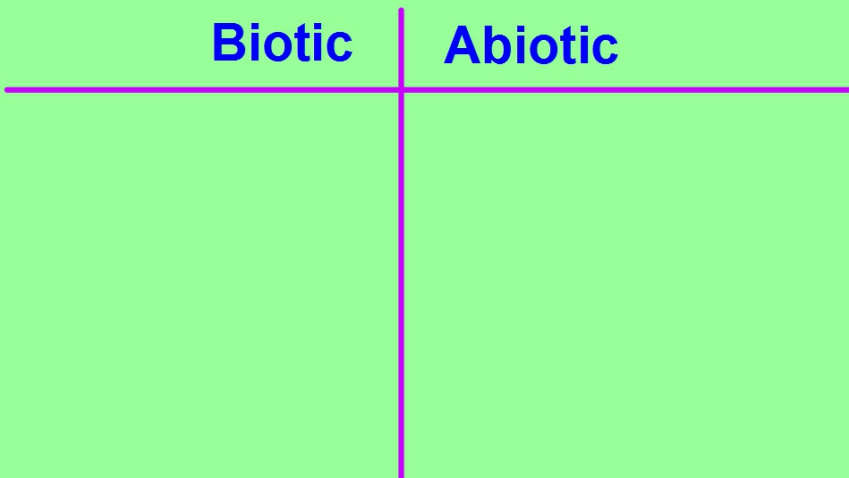
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**Learning**

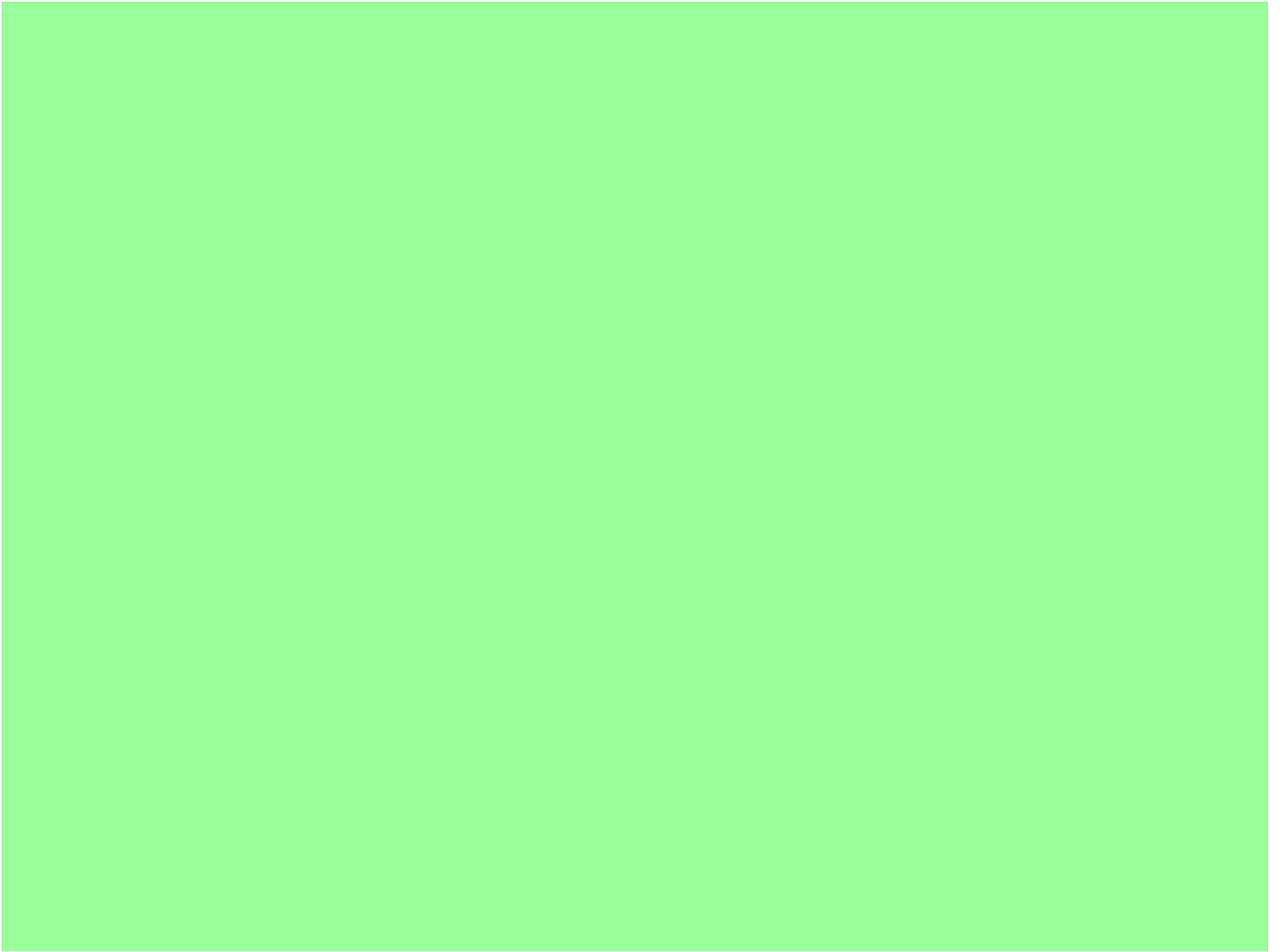
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**Learning**

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***Limiting Factors of Polar Bear Population (in video)***

***Abiotic***

***Biotic***

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