新东方在线

课程安排

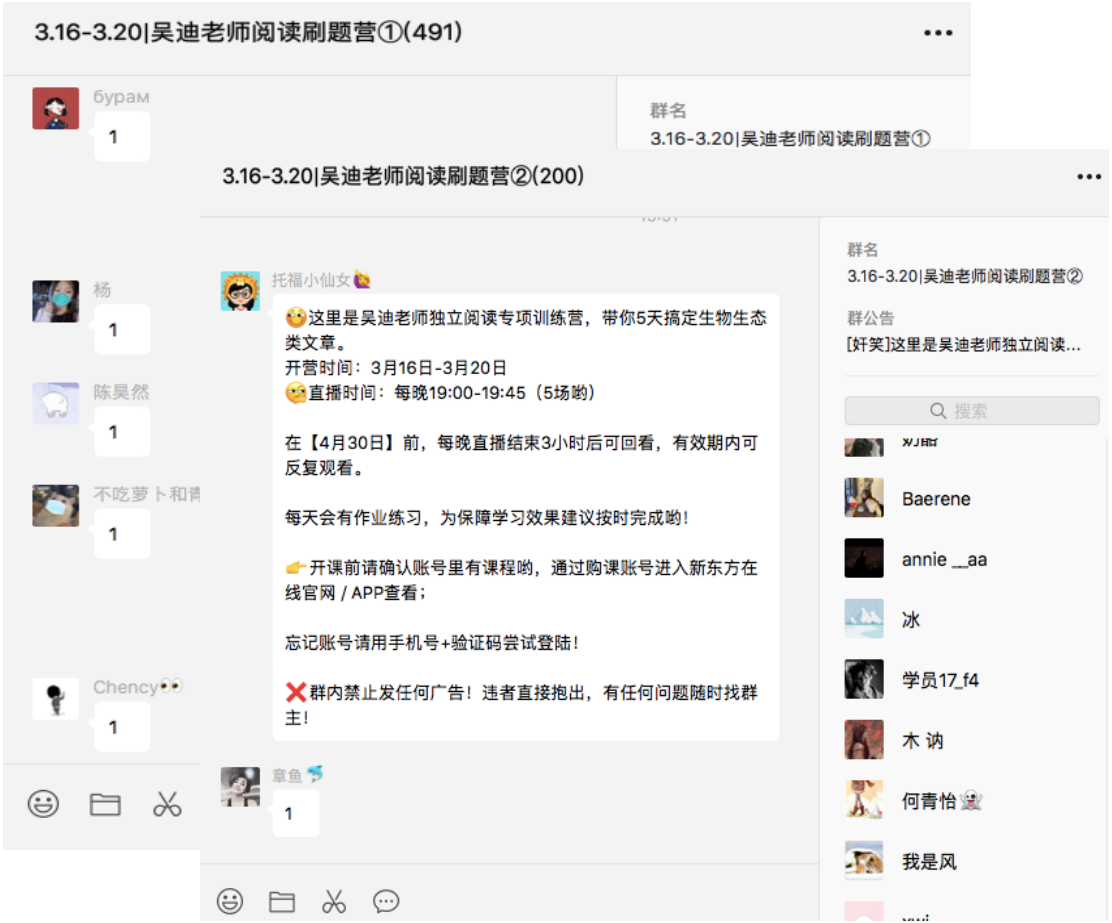
第1天	鸟类和两栖动物等动物行为类文章	3月16日 19:00–19:45 主讲：吴迪
第2天	哺乳动物等动物行为类文章讲解	3月17日 19:00–19:45 主讲：吴迪
第3天	生态之动植物之间关系类文章	3月18日 19:00–19:45 主讲：吴迪
第4天	生态之动植物与环境关系类文章	3月19日 19:00–19:45 主讲：吴迪
第5天	古生物学文章相关题型思路讲解	3月20日 19:00–19:45 主讲：吴迪

加助教：toeflfairy

回复【阅读】进群

（直播结束3小时后可回看）

新东方在线



加助教：toeflfairy

回复【阅读】进群

每日直播结束老师会布置相应习题，在群内发布完成作业任务 次日上课前老师会抽选1人点评

打卡全勤赠送吴迪老师整理托福阅读高频词汇

加助教：toeflfairy

回复【阅读】进群

新东方在线

动物行为学文章

吴迪

吴迪：

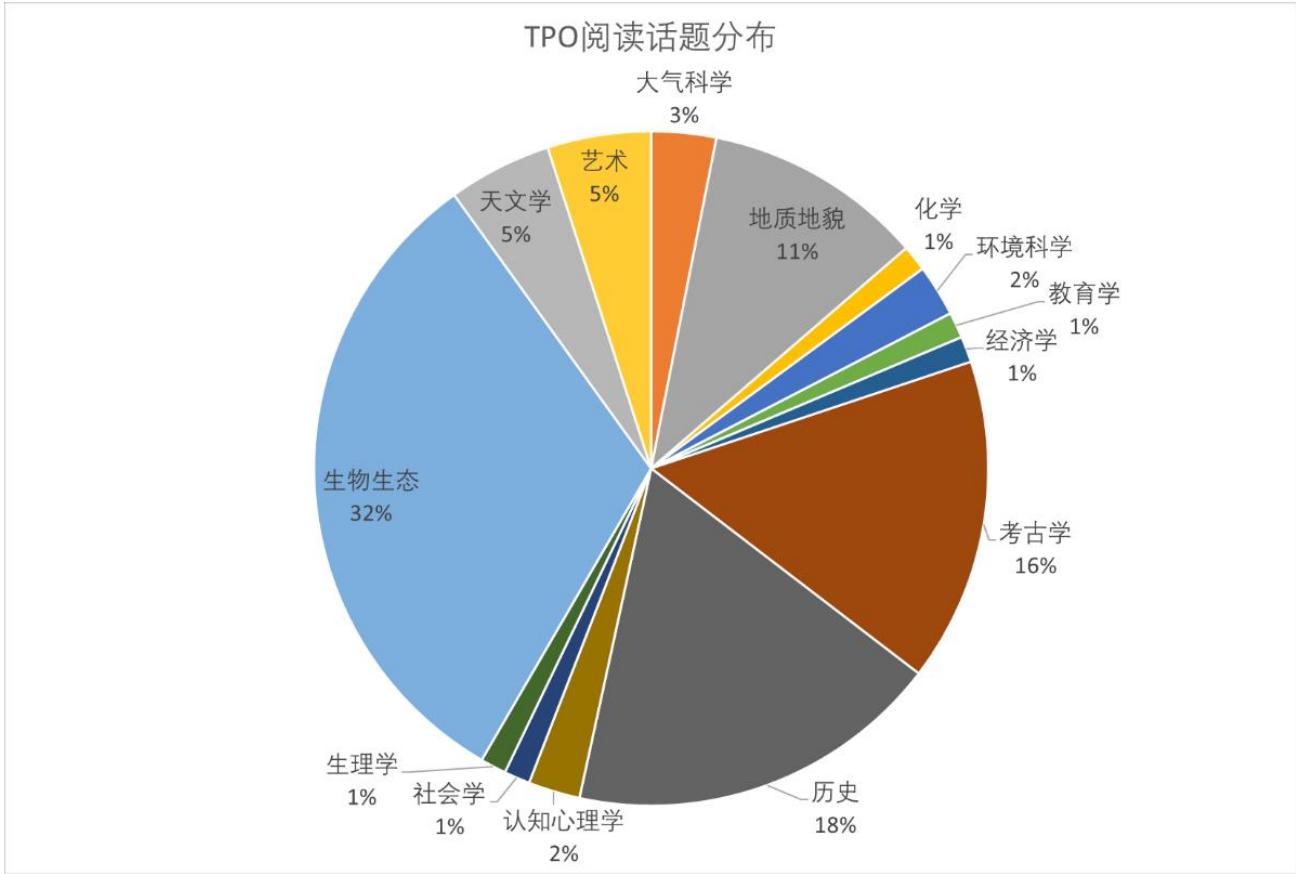
新东方在线托福阅读教师

6年教学经验

托福阅读连续3次满分

词句基础+篇章逻辑=阅读满分

托福阅读话题分布


TPO阅读话题分布
大气科学
3%
地质地貌
11%
化学
1%
环境科学
2%
教育学
1%
经济学
1%
考古学
16%
历史
18%
认知心理学
2%
社会学
1%
生理学
1%
生物生态
32%
天文学
5%
艺术
5%

课程大纲

- DAY 1：动物行为学文章1（鸟类+两栖动物+爬行动物）
- DAY 2：动物行为学文章2（哺乳动物）
- DAY 3：生态学文章1
- DAY 4：生态学文章2
- DAY 5：古生物学文章

课程大纲

- DAY 1：动物行为学文章1（鸟类+两栖动物+爬行动物）
  - 背景知识补充
  - 例题讲解
  - 思路总结

背景知识补充

- **the Study of Animal Behavior:**

  Nature or Nurture Controversy

背景知识补充

- **the Study of Animal Behavior:**

  Nature or Nurture Controversy

  Nature refers to all of the genes and hereditary factors that influence who we are—from our physical appearance to our personality characteristics.

  Nurture refers to all the environmental variables that impact who we are, including our early childhood experiences, how we were raised, our social relationships, and our surrounding culture.

背景知识补充

- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Ethology is a branch of zoology concerned with the study of animal behavior. Ethologists take a comparative approach, studying behaviors ranging from kinship, cooperation, and parental investment, to conflict, sexual selection, and aggression across a variety of species.

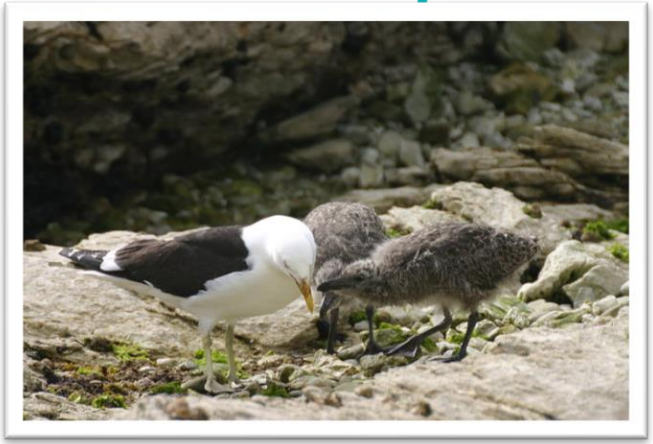
- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Key Concepts of Ethology

One of the key ideas of classical ethology is the concept of fixed action patterns (FAPs). FAPs are stereotyped behaviors that occur in a predictable, inflexible sequence in response to an identifiable stimulus from the environment.

背景知识补充



- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Key Concepts of Ethology

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背景知识补充

- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Key Concepts of Ethology

Another important concept is *filial imprinting,* a form of learning that occurs in young animals, usually during a critical, formative period of their lives. During imprinting, a young animal learns to direct some of its social responses to a parent or sibling.

- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Comparative psychology refers to the scientific study of the behavior and mental processes of non-human animals, especially as these relate to the phylogenetic history, adaptive significance, and development of behavior. Research in this area addresses many different issues, uses many different methods and explores the behavior of many different species from insects to primates.

- **the Study of Animal Behavior:**

Branches of the Field of Animal Behavior

Comparative psychology is part of psychology, while **ethology** is closer to the zoology. Ethology places more emphasis on a species' **instinct and natural behavior** while comparative psychology focuses on **learning and the development of behavioral theories**.

The methods used in comparative psychology focus on **lab work and responses to different variables**. Ethology, on the other hand, uses **observation in the field** without interference from the observer.

Nature or Nurture Controversy

Both nature and nurture play a part.

背景知识补充

Adaptions of Reptiles and Amphibians:

Temperature Regulation/Thermal Re

ectothermic/endothermic

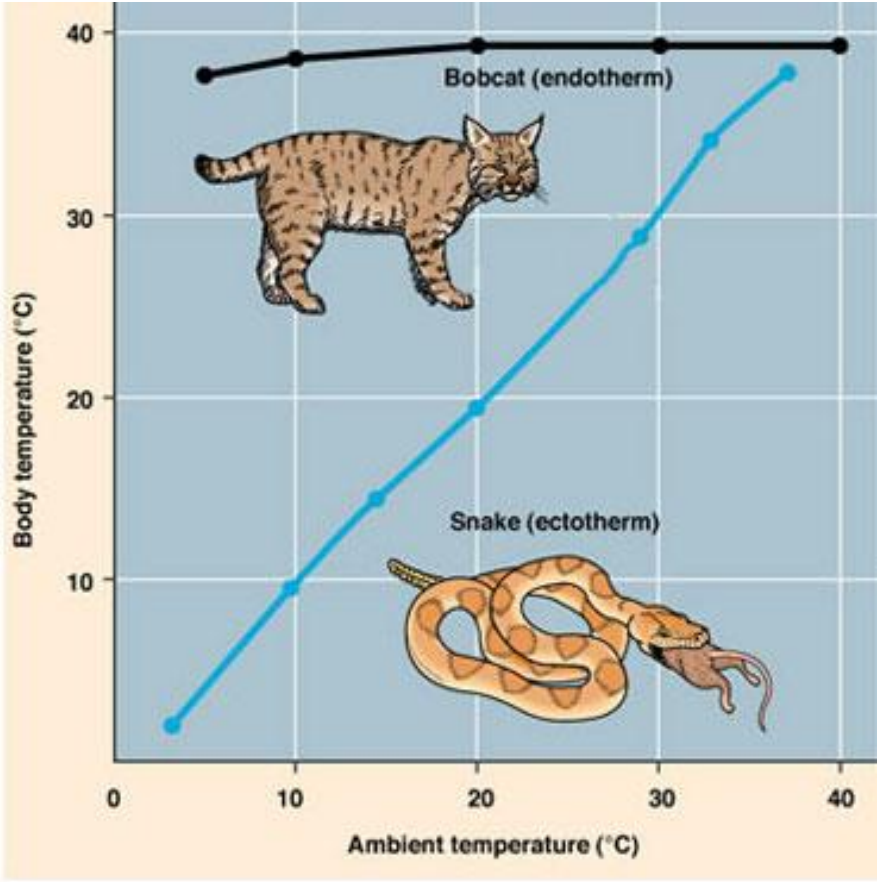
nocturnal

Laying Eggs

Prey Catching Behaviors

Protective Adaptations

Efficient Excretion



Adaptions of Reptiles and Amphibians:

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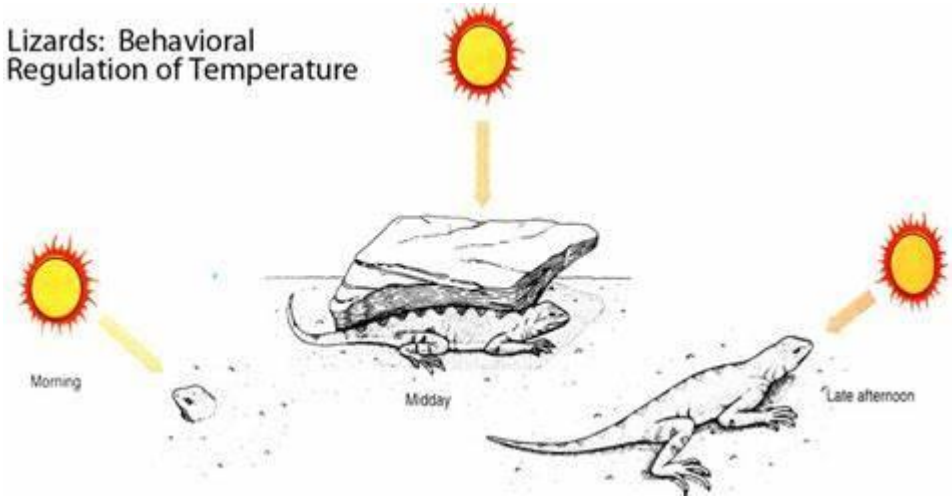

Controlled Experiments:

A controlled experiment is simply an experiment in which all factors are held **constant** except for one: **the independent variable**. A common type of controlled experiment compares **a control group** against an **experimental group**. All variables are identical between the two groups except for the factor being tested.

例题演练1

Paragraph 2: A warm-blooded turtle may seem to be a contradiction in terms. Nonetheless, an adult leatherback can maintain a body temperature of between 25 and 26°C (77-79°F) in seawater that is only 8°C (46.4°F). Accomplishing this feat requires adaptations both to generate heat in the turtle’ s body and to keep it from escaping into the surrounding waters. Leatherbacks apparently do not generate internal heat the way we do, or the way birds do, as a by-product of cellular metabolism. A leatherback may be able to pick up some body heat by basking at the surface; its dark, almost black body color may help it to absorb solar radiation. However, most of its internal heat comes from the action of its muscles. [*TPO 15*]

Paragraph 2 mentions all of the following as true about the body heat of adult leatherback turtles EXCEPT:

A. Their muscles produce heat for maintaining body temperature.
B. Their dark bodies help trap solar radiation.
C. Their cellular metabolism produces heat as a by-product.
D. Basking at the water’ s surface helps them obtain heat.

例题演练2

Which of the following can be inferred from paragraph 4 about Kramer’s reason for filling one food box and leaving the rest empty?

A. He believed the birds would eat food from only one box.
B. He wanted to see whether the Sun alone controlled the birds' ability to navigate toward the box with food.
C. He thought that if all the boxes contained food, this would distract the birds from following their migratory route.
D. He needed to test whether the birds preferred having the food at any particular point of the compass.

例题演练2

Paragraph 4: So, in another set of experiments, Kramer put identical food boxes around the cage, with food in only one of the boxes. The boxes were stationary, and the one containing food was always at the same point of the compass. However, its position with respect to the surroundings could be changed by revolving either the inner cage containing the birds or the outer walls, which served as the background. As long as the birds could see the Sun, no matter how their surroundings were altered, they went directly to the correct food box. Whether the box appeared in front of the right wall or the left wall, they showed no signs of confusion. On overcast days, however, the birds were disoriented and had trouble locating their food box. [*TPO 11*]

例题演练3

Paragraph 4 mentions each of the following as an example of behavioral thermoregulation EXCEPT

A. pressing against the ground
B. speeding up of the metabolism
C. reducing activity during the summer
D. adjusting exposure to the sun

例题演练3

Paragraph 4: However, behavior is by far the most important factor in thermoregulation. The principal elements in behavioral thermoregulation are basking (heliothermy), heat exchange with substrates such as rock or earth (thigmothermy), and diurnal and annual avoidance behaviors, which include moving to shelter during the day for cooling and hibernating or estivating (reducing activity during cold or hot weather, respectively). Heliothermy is especially common among frogs and toads: it allows them to increase their body temperature by more than 10℃. The Andean toad Bufo spinulosus exposes itself immediately after sunrise on moist ground and attains its preferred body temperature by this means, long before either ground or air is correspondingly warmed. A positive side effect of this approach is that it accelerates the digestion of the prey consumed overnight, thus also accelerating growth. Thigmothermy is a behavior present in most amphibians, although pressing against the ground serves a dual purpose: heat absorption by conductivity and water absorption through the skin. The effect of thigmothermy is especially evident in the Andean toad during rainfall: its body temperature corresponds to the temperature of the warm earth and not to the much cooler air temperature.

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THANKS!

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