

Hook:

VR headsets to look at Predators



Predators

Focus: Science / Computing



Knowledge:

- Where do animals (including humans) get their food from?
- What is a skeleton? What are the main functions of the skeleton?
- What is a muscle?
- What are the main functions of the muscles?
- What are the different parts of a flower?
- What do plants need to grow?
- How is water transported within plants?
- What is pollination?
- What is seed formation?
- What is seed dispersal?
- What is programming?
- What is an algorithm?
- What is debugging?

Learning Journey:

What is a predator? What is its prey? Where do animals get their food (food chain)?
Look at animal skeletons - What is a skeleton? What is different between a predators skeleton and a prey animal? Why is this? What are muscles? What are their functions?

Learning Journey:

Look at predators on the VR headsets / videos.
Can we identify features we have learnt about on the animals e.g. skeletal differences, size / muscle differences etc.

Learning Journey:

What plants might be around them? What are the parts of plant? What do plants need to grow? How is water transported through a plant?
Buy flowers, children to cut them up and explore the different parts. Use flowers or celery and food colouring to complete experiment observing over time the way a plant will transfer water.

Learning Journey:

Why do plants keep growing? How do they grow? Why do plants grow in different places? What is seed formation? What is seed dispersal?

Vocabulary:

Predator	Prey
Skeleton (and bones)	flowers
Muscle (and examples)	air
Protection	light
Support	water
Movement	nutrients
Nutrition	soil
Roots	growth
Stem	pollination
Trunk	seed formation
Leaves	seed dispersal
Programming	algorithm
Coding	debugging
Sprite	background
Test	Scratch

Characteristic foci:
Respect / Resilience

Skills:

- Explore flowers and make sensible suggestions about what features do (e.g. white pipes through the stem)
- Use texts to research using features like the index effectively to find relevant information
- Code a game and problem solve issues
- Use logical reasoning to explain how simple algorithms work and detect and correct errors
- Use the internet safely

Curriculum Coverage:

- identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flower 2) explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant 3)investigate the way in which water is transported within plants 4) explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
- humans and some other animals have skeletons and muscles for support, protection and movement.
- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Learning Journey:

Introduce basic programming skills using instruction cards (like jigsaw pieces)
Explore scratch to change character / background etc
Learn to include 1 'if' (e.g. if shark touches the fish 5 points)

Trip / Visitor:

Visit from Animal experience man

Display Plan:

Labelled predator / flower with examples of children's work around which adds detail

Outcome:

Programme a predator and prey game on scratch and share with other classes (Year 1, also learning about animals)



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What do they already know?

Year 1:

- What are carnivores/ herbivores/ omnivores?
- What do they eat?
- What animals are carnivores/ herbivores/ omnivores?
- What are the 5 different animal groups?
- What animals fit into each group?
- What features are specific to each animal group?
- Describe each animal group
- Where do they live?
- What is their habitat like?
- What are the two types of trees?
- Name common garden plants
- What are the different parts of a plant?
- What does a plant need to grow?
- Can a plant grow...?
- How do I turn on a computer/ I-Pad?
- How do I turn off a computer/ I-Pad?
- What is a safe internet website to use?
- How do I get onto the internet?

Year 2:

- What is a food chain?
- What does a plant need to grow and stay healthy?
- What do humans and animals need to survive?
- What is a habitat?
- What is a micro-habitat?
- Why do different animals need different habitats?
- What is offspring?
- Where do animals get their food from?
- What is a program?
- What is coding?
- How can you be safe online?
- How do I turn on an iPad?
- How do I find an app on an iPad?

How will they remember it?

Recap prior learning from year 2 at the start of the topic

Recap that learning and learning from each lesson at the start of the next lesson

Mini quizzes / recap learning learnt so far on group posters or as a book exercise 'present how you want' choices

Rhymes and songs about the bones

Which resources will I need?

Flowers to chop

Flowers to use with food colouring (roses work well) (or celery)

Food colouring

VR headsets need booking out

Scratch on the I pads

What do I need to know to be able to teach this?

Parts of a flower

Names of bones, purpose of skeleton (Class clips / BBC Bitesize)

How muscles work (Class clips / BBC Bitesize)

Scratch coding (see Shark fish game manual)