

Title: What creature is that? ID keys activity

Session type: Science and Literacy activity

Duration: 60 minutes

Key Stage: KS2 – KS3

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Session Overview

Students will create an identity key to help identify and classify the animals in our wave tank and Plymouth sound exhibit. Students will review the footage from the tour or use the pre-recorded footage of the tanks. Students will develop their literacy skills using effective questions and apply their observation skills to identify key distinguishing characteristics of the species incorporated into their ID keys.

At the end of this activity the students will have the opportunity to examine each other's work and use the ID keys to identify animals by name using their physical characteristics and evaluate how effective their peers work is for purpose.

Learning Objectives

After this session the students should be able to:

- Recognise distinguishing characteristics of organisms.
- Recognise a variety of different animals including fish, amphibians, reptiles, birds and mammals
- Recognise that different animals live in different habitats
- Recognise that different animals have their own adaptations to help them survive in their habitat
- Produce an ID key that shows understanding of the scientific principles above
- Present their work to an audience, explaining their design ideas

Pre-Activity Suggestions

- Learn about several different habitats, both terrestrial and marine. Could be done as a nature walk.
- Classify a range of common animals (fish, amphibians, reptiles, birds and mammals).
- Pupils can write down any animals that they see around their home, and try to identify their habitat.

Post-Activity Suggestions

- Use a world map to show where different habitats can be found – see which climates and habitats your students have visited.
- Learn about the importance of looking after our habitats, and how we as humans can directly affect them.
- Create an ID key to separate a larger number of animals or animals from a different habitat.

National Curriculum Links

Key Stage 3 Art and Design

- Produce creative work, exploring their ideas and recording their experiences
- To use a range of materials creatively to design and make products

Key Stage 3 Science: Animals, including humans

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals [Y1]
- Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds and mammals, including pets) [Y1]
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) [Y2]

Key Stage 2&3 Science: Living things and their habitats

- Recognise that living things can be grouped in a variety of ways.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different animals and plants, and how they depend on each other [Y2]
- Recognise variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection

Key Stage 3 English:

- Ask relevant questions to extend their understanding and knowledge.
- Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- Use effective questioning to develop understanding through speculating, hypothesising, imagining and exploring ideas.

Ocean Literacy Principles

The Ocean Literacy Principles are international standards of education. The following Principles are achieved through this workshop:

- 1) The Earth has one big ocean with many features
- 2) The ocean and life in the ocean shape the features of Earth
- 3) The ocean is a major influence on weather and climate
- 4) The ocean makes Earth habitable
- 5) The ocean supports a great diversity of life and ecosystems
- 6) The ocean and humans inextricably interconnected
- 7) The ocean is largely unexplored

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Lesson Plan

Starter

Show a clip of one of tank videos (wave tank or great barrier reef are great options to show biodiversity.) Ask students to play a short game to practise their literacy skills; in pairs one person selects an animal to describe the features of while their partner tries to spot it in the video clip. They can continue playing switching turns at being the describer. Encourage students to use detailed language and adjectives in their descriptions, remembering to consider body shape, movements, and behaviour in addition to colour and visual characteristics. There is an option to play as a whole class, or display key descriptive words on the board to help lower ability students with the game.

Main

Set out the ID key task to the class asking them to make a draft first in order to plan their layout effectively. You can differentiate for mixed abilities or allow students to extend themselves by changing the number of animals to be classified.

INSTRUCTIONS for the class:

1. Look at the animals on the sheet from our wave tank, list all the different physical features and characteristics that you can SEE that tells them apart. For variation different groups in the class could focus on different tanks or habitats. You may wish to do an ID key for a rockpool.
2. Choose two or more creatures to include in your ID key, if you want a big challenge do an ID key for all of them! Use the defining features of the animals to come up with some YES/NO answer questions that could tell the creatures apart.
3. Using the framework sheet as a guide, make an identity key that will single out each creature by its physical characteristics.
4. Draw a picture or cut out and stick the pictures from the framework sheet on your ID key at the bottom of the correct question flow chart.
5. Test out your ID key by asking a partner to look at a creature in the wave tank video then answer the YES/NO questions on your ID key to identify the creature they are looking at.

Plenary

Pair students up to switch ID keys. Play a new clip of tank footage involving the same animals but this time students must use the ID key their partner has written to identify the animals in the video. Alternatively display static pictures of the animals on the board to make it slightly easier, or to introduce a game aspect to evaluating the ID keys images of the animals could be placed in a “hat” and selected at random to be identified using the ID keys. After using the ID keys to identify the names of at least 2 animals then students should give two feedback points to their partner; one aspect of the ID key they think is very good and one area for development.

Identity Keys Programme of Study

Resources

- Paper to draw out ID key, or the framework sheet in appendices as a guide for layout and types of questions.
- Pencil/pens.
- Glue and scissors for sticking on the pictures.

Appendices

- Appendix 1 – ID Key Layout Framework
- Appendix 2 – Wave Tank Creature Pictures
- Appendix 3 – ID Key Practise Writing Frame
- Appendix 4 – Tropical Fish Pictures for extension ID key task

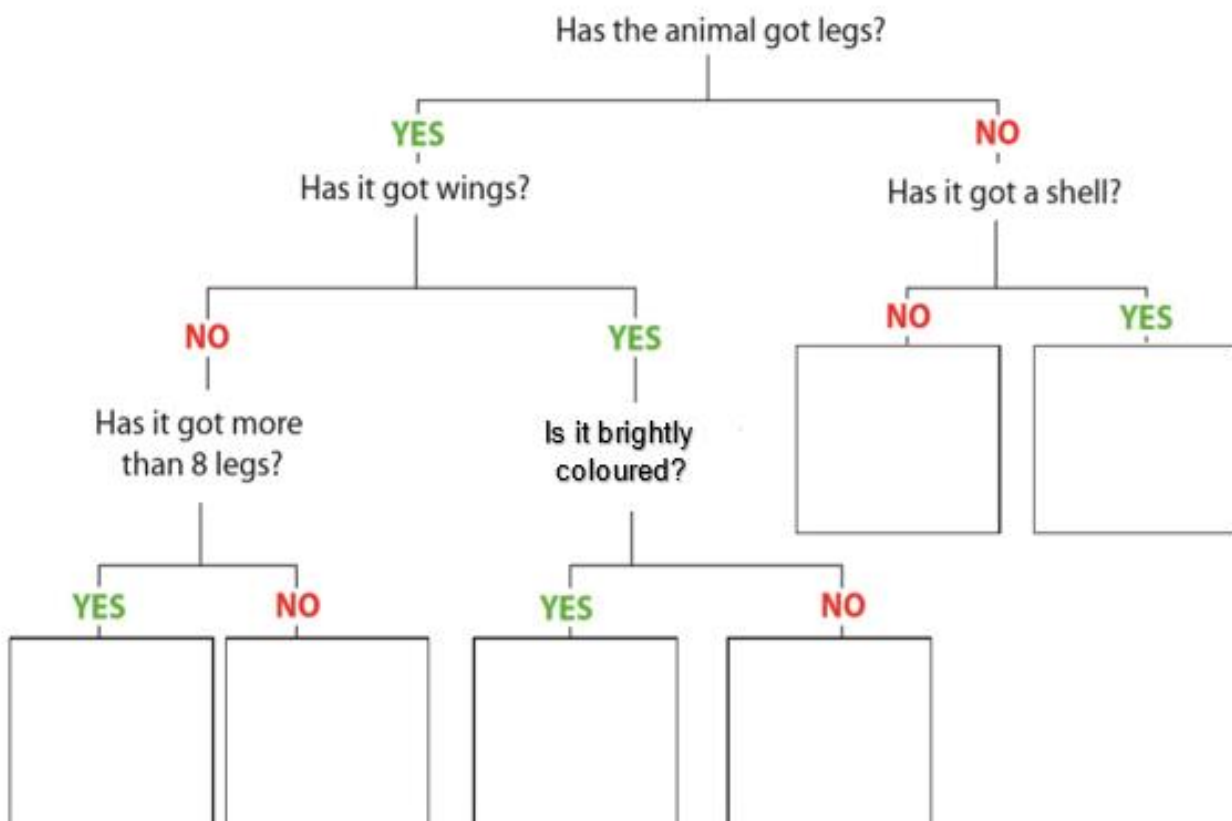
ID Key Framework

WAVE TANK CREATURES:



Example of ID keys to use as a guide:

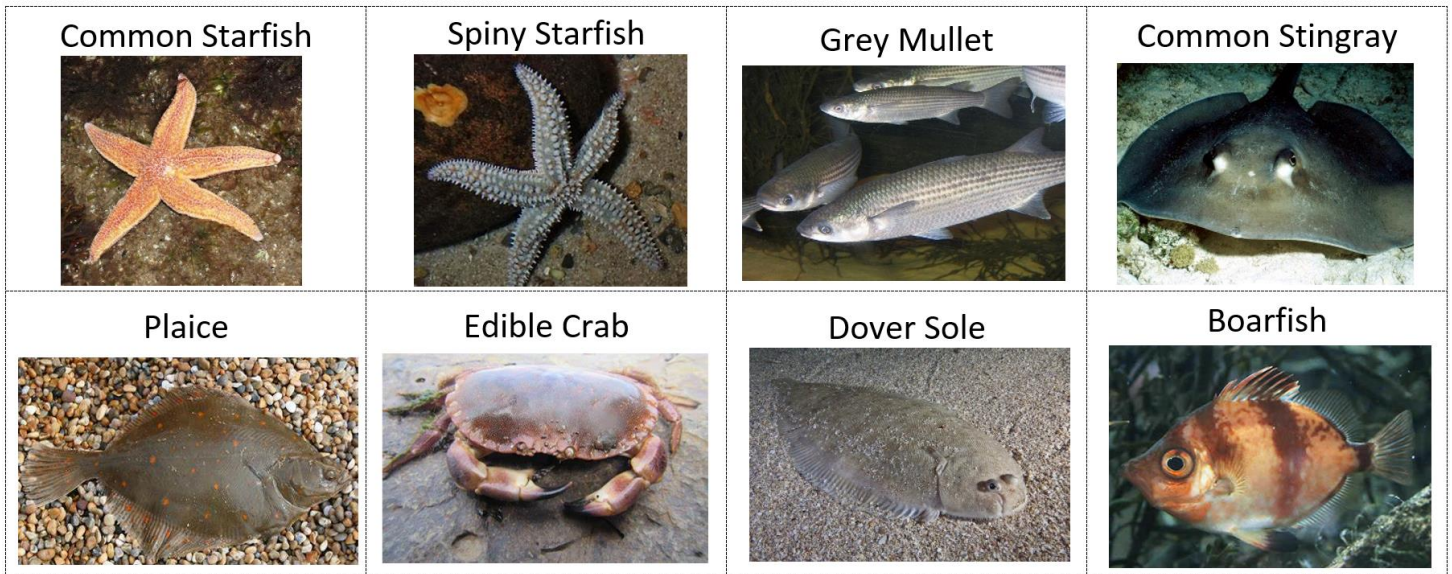
Use this one to work on your layout:



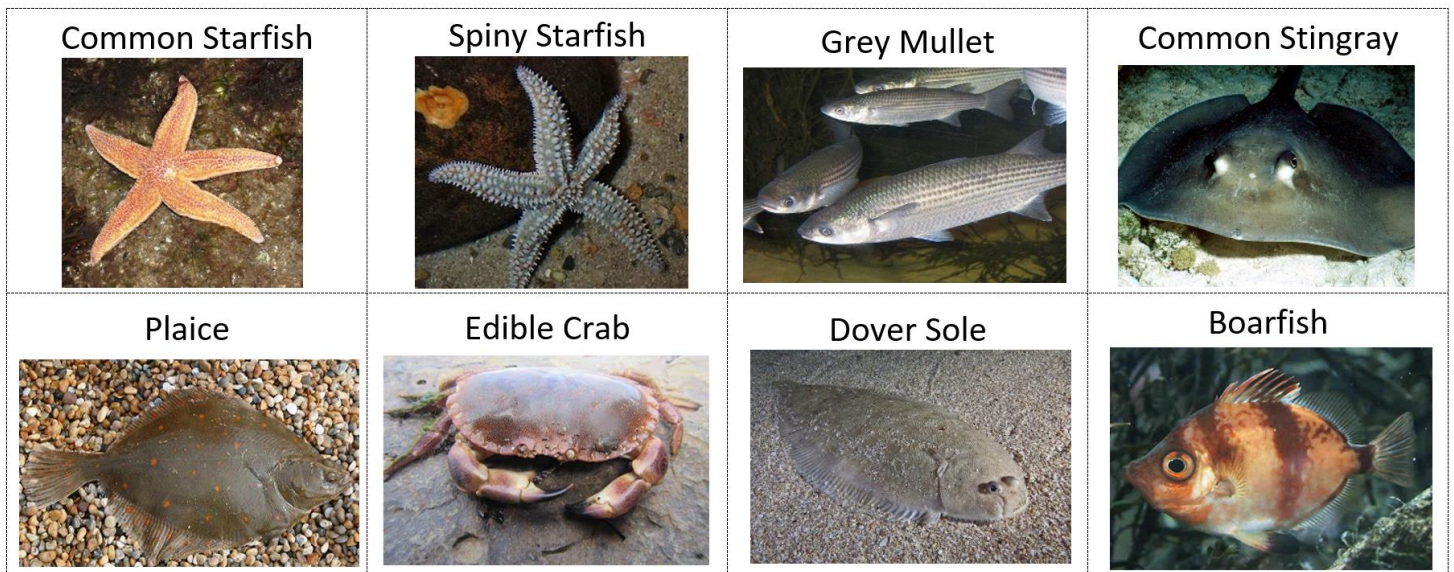
Wave Tank Creature Pictures

Print a set each for students to cut out and stick on their ID Keys.

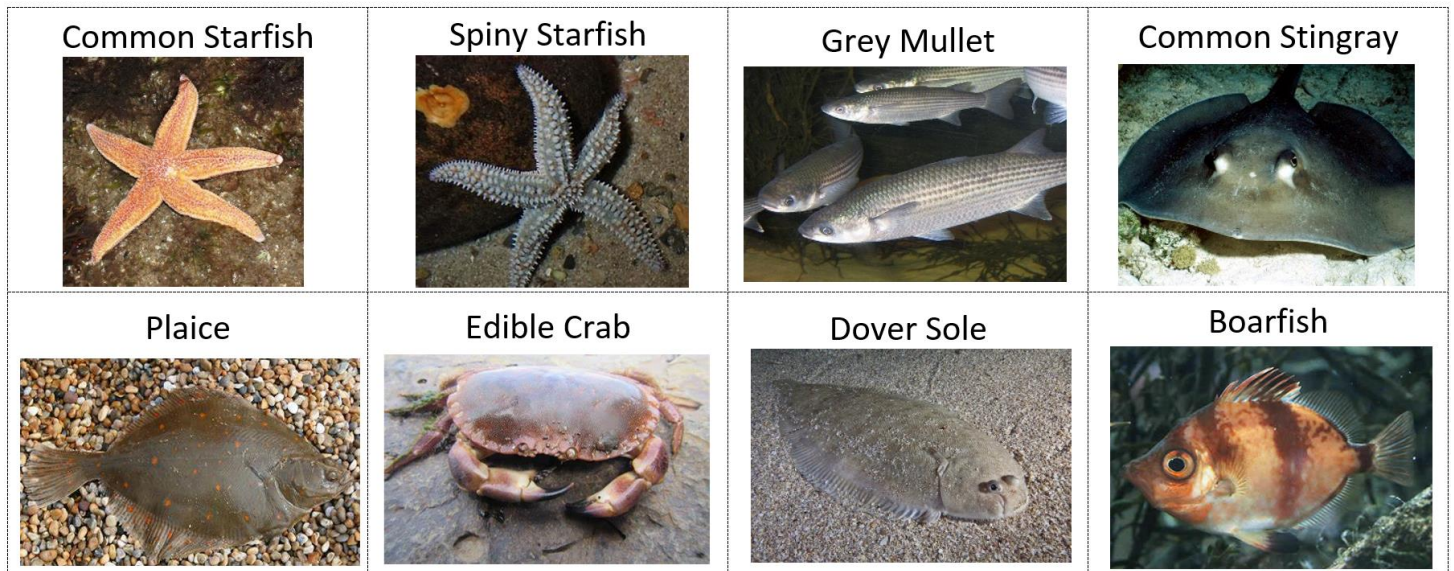
WAVE TANK CREATURES:



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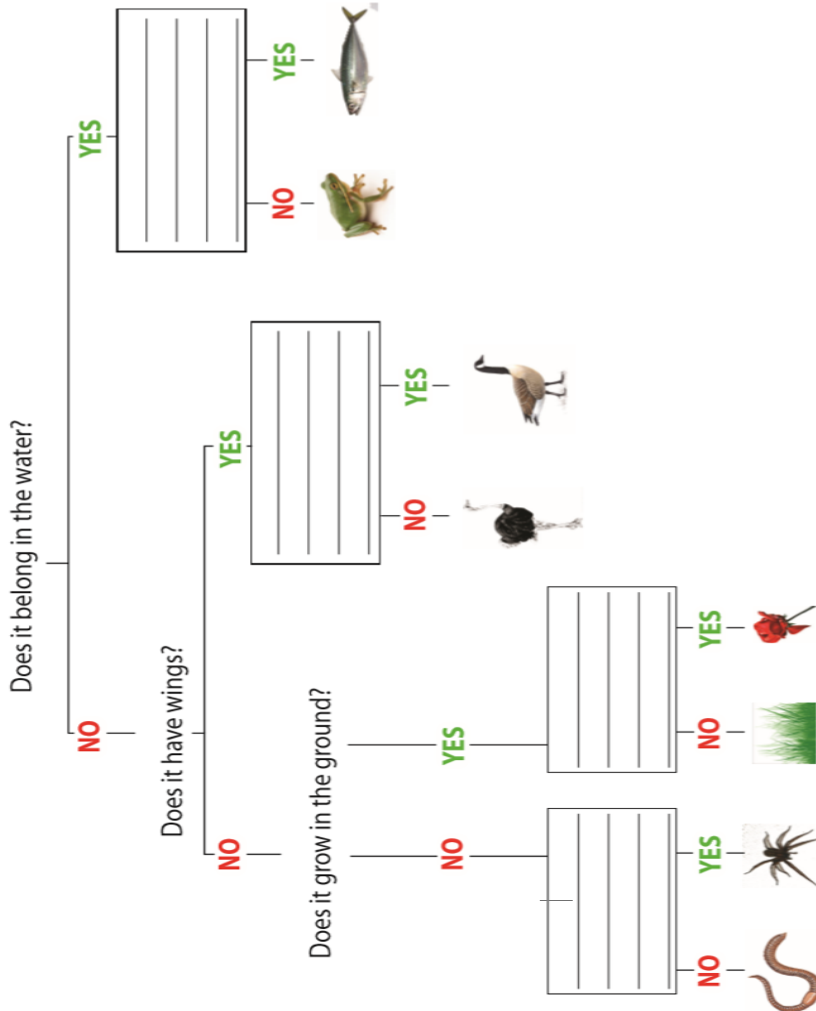


WAVE TANK CREATURES:



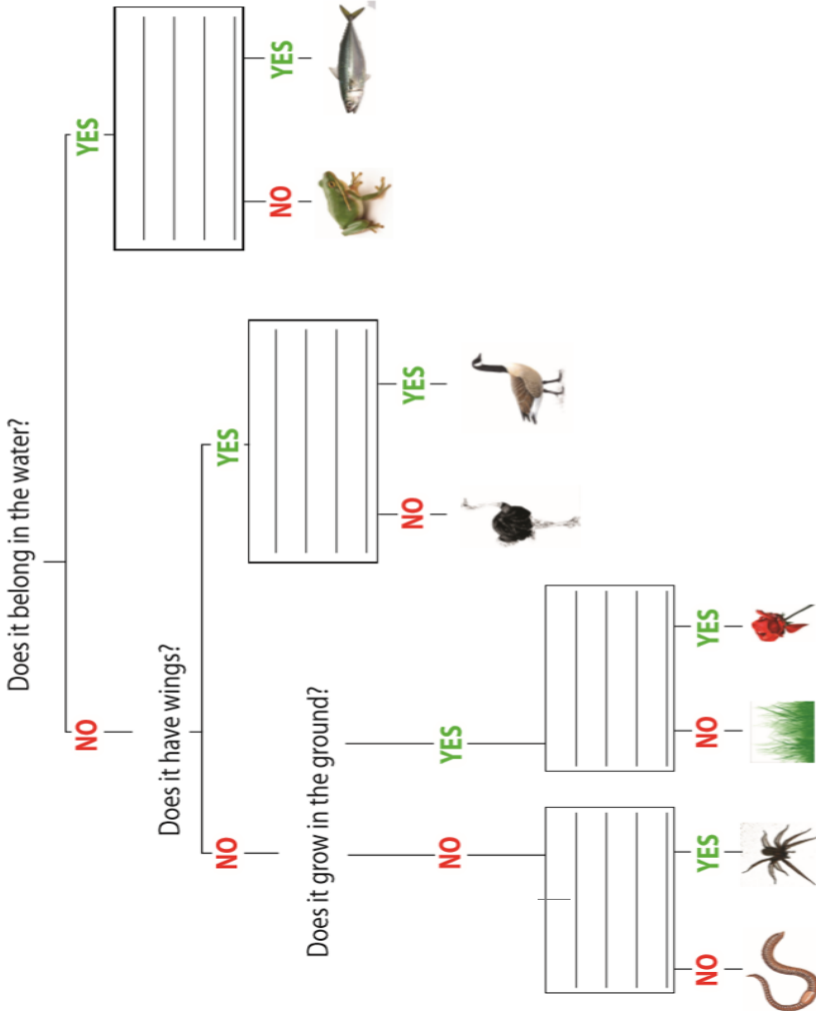
ID Key Framework

Use this framework to practise writing the types of questions to ask:



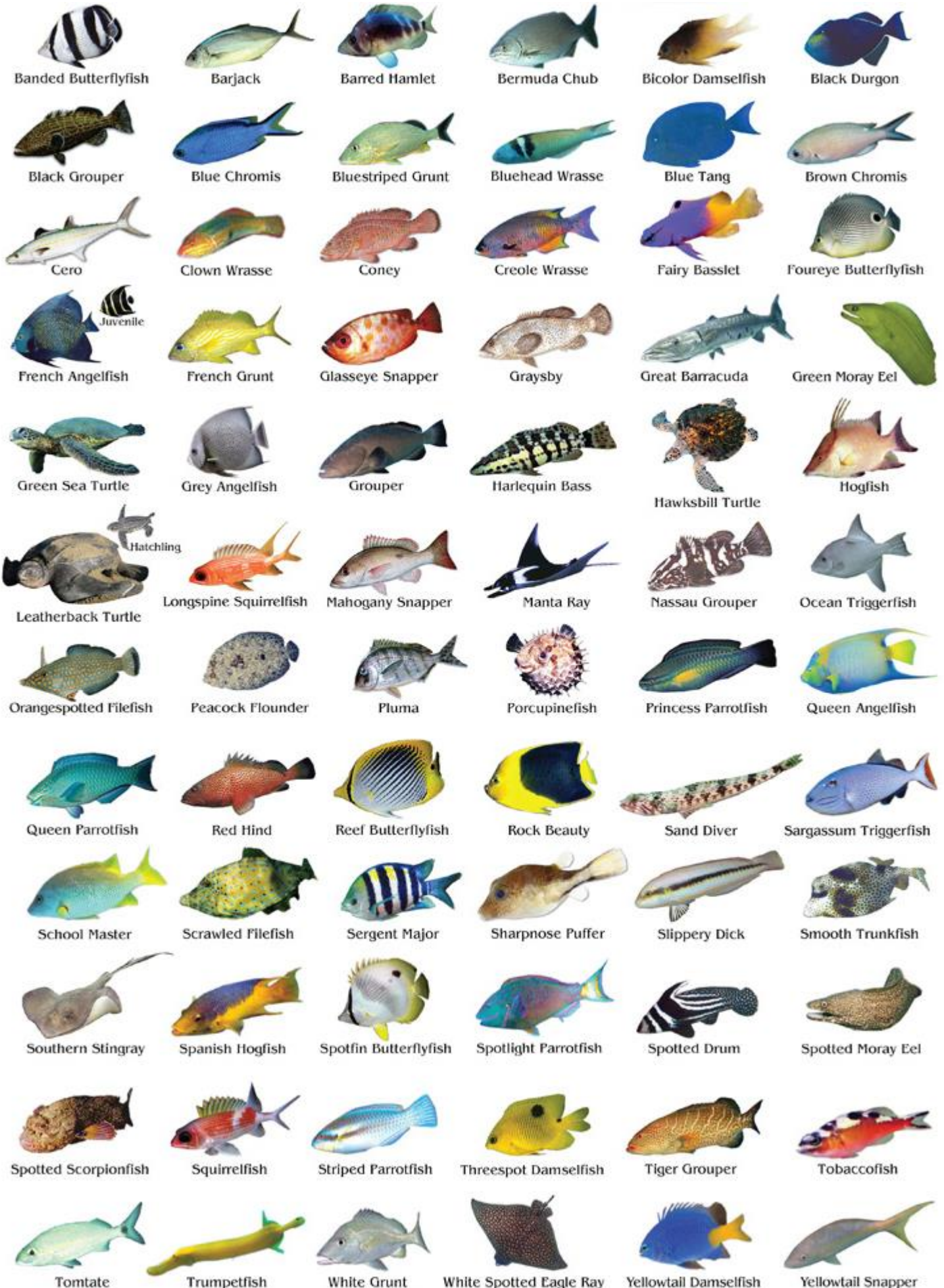
ID Key Framework

Use this framework to practise writing the types of questions to ask:



Tropical Fish Pictures

Use as extension or as variety to make a second ID key.



Contact Us

We hope the ID Keys Activity has everything you need to create an effective teaching experience in your classroom. If you have any questions or would like to contact us, please feel free to do so using the following details:

Email: learning@oceanconservationtrust.org

Telephone: 01752 275233
