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| Worksheet 8: Group Discussion Practice |

**Exercise A – Coin Drop Experiment**

**Instructions:** In a small group, you will be given some Canadian coins and an eyedropper. Fill in the following chart with your group. Use discussion language from the previous worksheet (modals, “I think”, “I wonder”, etc.)

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| **Predict**  Make a list of the coins in front of you.  How many drops of water do you think will fit on each coin?  Why? Do you have any reasons for your guesses?  Are your predictions 50% certain (may, might, could) or 95% certain (must)? |  |
| **Observe**  When your teacher gives your group a glass of water, start adding drops to the coins, one drop at a time.  Keep track and record your results here. |  |
| **Explain**  Were your predictions correct?  What did you notice while you did the experiment?  Can you explain what you saw using knowledge you may have learned in the past?  (it’s okay if you don’t know the English vocabulary for it – you’ll learn it soon! Do your best to describe it) |  |

**Exercise B – Pre-listening Vocabulary**

**Instructions:** Work with a partner or small group to match the words to their definitions. For the words with more than one definition, which definition do you predict will be in a listening about “Surface Tension”?

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| --- | --- | --- | --- | --- |
| Adaptation | Confined | Negligible | Partial | Randomly |
| Bonding | Negative | Net | Positive | Tension |

|  |  |
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|  | - a situation in which people do not trust each other, or feel unfriendly towards each other, and that may cause them to attack each other  - a feeling of worry and stress that makes it impossible to relax  - ​the property (= characteristic) of liquids by which they form a layer at their surface, and which makes sure that this surface covers as small an area as possible (called: surface tension) |
|  | - good or useful  - expressing agreement or support  - containing or producing the type of electricity that is carried by a proton |
|  | - bad or harmful  - containing a word such as ‘no’, ‘not’, ‘never’, etc.  - containing or producing the type of electricity that is carried by an electron |
|  | - not complete or whole  - liking somebody/something very much |
|  | - ​the process of forming a special relationship with somebody or with a group of people  - the process of atoms joining together |
|  | - material that is made of string, thread or wire twisted or tied together, with small spaces in between; a piece of this material used for a particular purpose  - the frame covered in net that forms the goal in sports  - (adj) final, after all the important facts have been included |
|  | - small and surrounded by walls or sides |
|  | - without somebody deciding in advance what is going to happen and without any regular pattern |
|  | - the action or process of changing something, or of being changed, to suit a new purpose or situation  - a film, television drama or play that is based on a particular book or play but has been changed to suit the new medium |
|  | - of very little importance or size and not worth considering |

Definitions from:

Oxford Advanced Learner’s Dictionary online (2020), Oxford University Press: <https://www.oxfordlearnersdictionaries.com/>

**Exercise C – Listening for Specific Information**

**Instructions:** You just did an experiment that involved “surface tension”. If you wanted to learn more about surface tension, you might try to find a video about it online. You’re probably not going to need all of the information in the video, but some of it will be interesting, especially as it relates to the experiment you just did.

Watch the video and take notes before. Make your own headings and take notes on the interesting information. Afterwards, compare your notes with a partner. Did you take notes on different parts? Discuss why you took the notes that you did.

Watch the video a second time and fill in any interesting details you may have missed the first time. In particular, listen for parts that your partner wrote down that you didn’t.

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| Notes: |

**Exercise D – Post Listening Discussion**

**Instructions:** The video ended with a question about water striders. Work with a group and discuss your answers.

What adaptation has occurred in the feet water striders “to take advantage of water’s surface tension”?









**Exercise E – More Adaptations**

**Instructions:** For each of the animals below, discuss with a group what adaptations you think they have (**predict**). Then your teacher will show you an image of the animal (**observe**). Can you see any other adaptations? Can you **explain** why they might have these adaptations?

**Penguin**

**Predict** (before looking at the image)

1. Can you think of any adaptations that a penguin has?

Parts of the penguin:

The bill –

* Why is the bill black with a little bit of white?
  + It must be to match the colour of their body.
* It must be sharp to catch fish.
* I wonder why the bill is long and curved at the end.
  + It must be because the penguins need to use it to break the ice.
  + It might be necessary for the penguin parents to protect themselves and their babies and their community from sea birds.
  + It might be (necessary) **for** feeding their babies. They can put their bills into the baby’s throat to give it the food.

the body – fat, chubby,…

* Why does their body have a lot of fat?
  + It might be necessary for keeping them warm.
  + It might make it easier for them to float and to swim.
    - I wonder why they are good at swimming.
      * I think that they need to catch fish for food and also flee from the seals that hunt them.

the flippers, wings –

* Why are the penguin’s flippers shaped like wings?
  + It must be because they need to float and swim.
  + Maybe they help them to balance when they walk on ice.
  + It might be because they need to resist the strong wind and protect their babies.

the color – black and white

* I wonder why they are black and white.
  + Maybe it is because they live on the snow. The black and white colours may help them blend into their surroundings. They look like the ice with shadows.

the feet – web feet

* I think that the uses of the feet are the same as their flippers. The parent can keep the baby warm by letting the baby sit on their feet to protect them against the wind and the ice.

tail – wedge shape

claws –

eyes

2. Why do you think it adapted this way?





**Observe** (look at the image of a penguin)

3. Are there any other adaptations that you notice?





**Explain**

4. Why do you think it has flippers instead of wings?

5. Why do you think it has a white belly?

6. Why do you think it has a black back?

7. Why does it have strong claws on its feet?

**Cat**

**Predict** (before looking at the image)

1. Can you think of any adaptations that a cat has?





2. Why do you think it adapted this way?





**Observe** (look at the image of a cat)

3. Are there any other adaptations that you notice?





**Explain**

4. Why do you think a cat has retractable claws?

5. Why do you think a cat has papillae on its tongue? (the barbs that make it rough)

6. Why do you think a cat has such long whiskers?

7. Why do you think a cat has vertical pupils in its eyes?

**Anglerfish**

**Predict** (before looking at the image)

1. From its name, can you guess what an anglerfish is?

(Angler = fisherman)





**Observe** (look at the image of an anglerfish)

2. Are there any adaptations that you notice?





**Explain**

3. Why do you think an anglerfish has an antenna like fin on its head that glows on the tip?

4. Why do you think an angler fish has such a side mouth?

5. Why do you think an angler fish has teeth that are angled back into its own mouth?

6. Why do you think an angler fish is dark brown and grey?