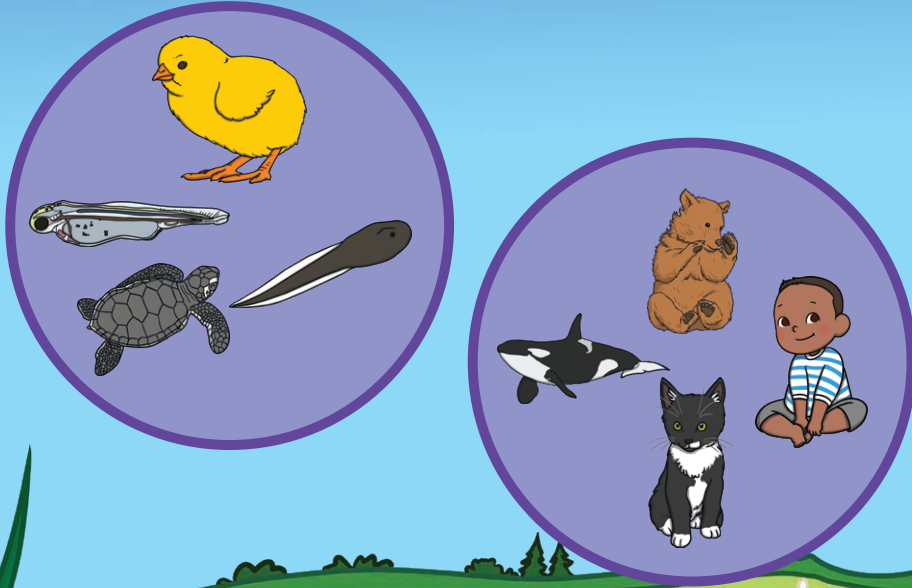


## Reasoning Cards

1

Here are some young animals sorted into two groups.



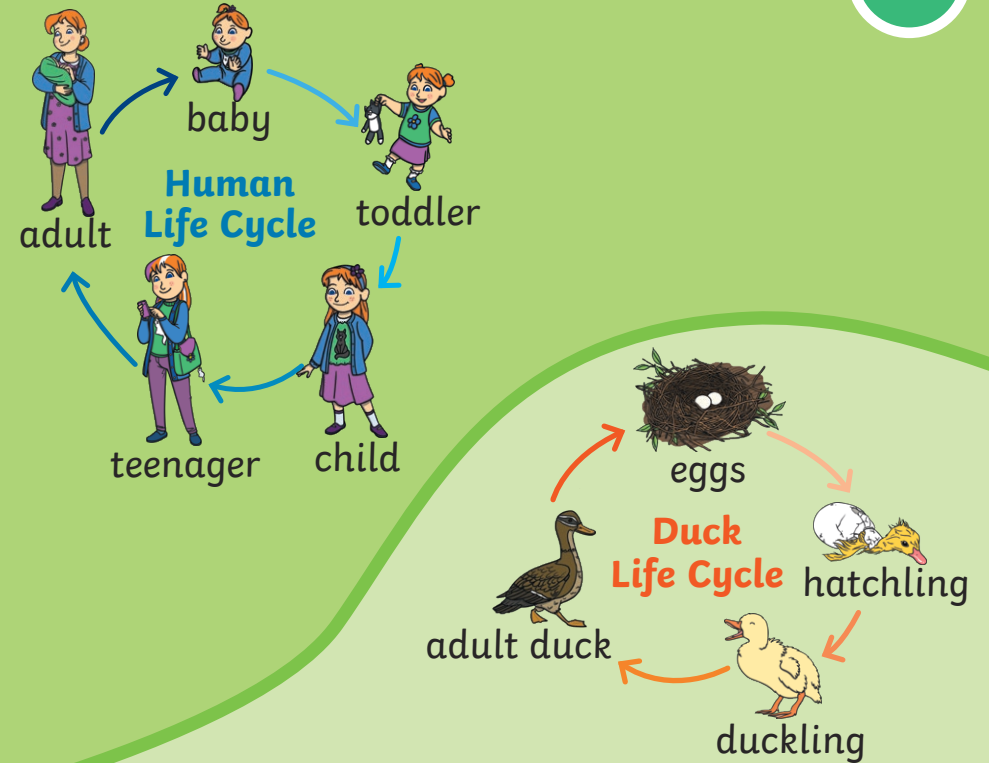
What could the titles of these groups be?

Can you think of another example of an animal to add to each group?

Can you sort the same animals into two different groups to these?

## Reasoning Cards

2



Compare the life cycles of a human and a duck.

What is the same about them?

What is different about them?

Can you explain how they are both different to the life cycle of a frog?

## Reasoning Cards

3

Bartek says:

The oldest child in the school always has the biggest feet.

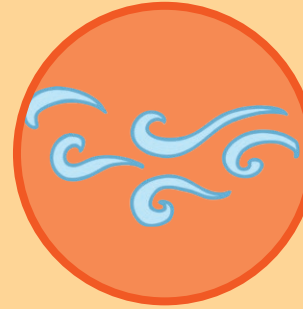
Do you think Bartek is right?

Why or why not?

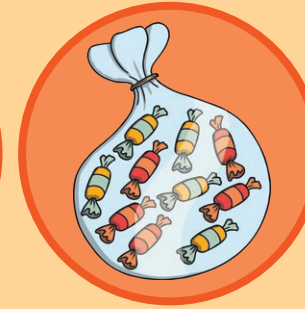
How could you prove it?

## Reasoning Cards

4



clean air



sweets



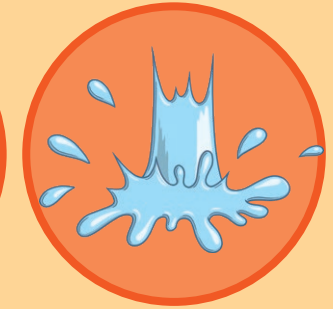
school



TV



healthy food




clean water

Put these things in order of how much you think people **need** them from 'most' to 'least'.

Explain why you have made these choices.

What else do you think is important for people to stay healthy? Why?

Mariam is thinking about how we feel after exercising.



I think that running for two minutes will affect my body more than doing star jumps for two minutes.

Do you think she is right? Why or why not?

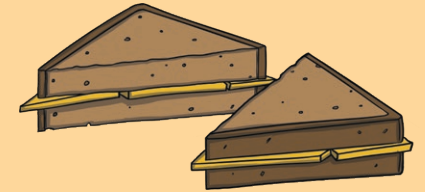
How could she find out if she is right?

What might she observe (notice)?

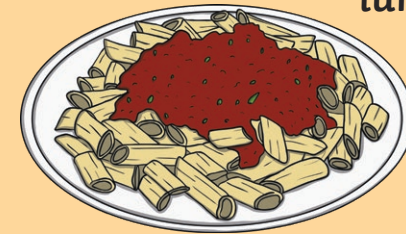
Here is a breakfast, lunch and dinner for one day.



breakfast



lunch



dinner

Think about what you have learnt about the Eatwell Guide.

What is already included in these meals that is a good part of a balanced diet?

What might you add to these meals to improve them? Explain why.

Can you suggest some healthy snacks that could be eaten between these meals?

## Reasoning Card ①

What could the titles of these groups be?

**'Animals That Lay Eggs' and 'Animals That Have Live Young' (or similar).**

Can you think of another example of an animal to add to each group?

**Answers may vary. Examples of egg-laying animals could include butterflies or types of birds (e.g. ducks). Examples of animals that have live young are likely to come from the mammal group (e.g. sheep or dogs) but children may mention other examples such as some snakes.**

Can you sort the same animals into two different groups to these?

**Children could sort the animals into those offspring that do look like their adult when they are born (turtle, chicken, orca, bear, human, cat) and those that do not (frog and goldfish).**

## Reasoning Card ②

What is the same about them?

**The life cycles of humans and birds are the same because their young look similar to the adults. They both grow bigger and stronger as they develop.**

What is different about them?

**They are different because birds lay eggs but humans have live young.**

**Children may mention things that humans and ducks learn to do as they grow older, e.g. humans might learn to read and write.**

Can you explain how they are both different to the life cycle of a frog?

**Differences include: Tadpoles do not look like adult frogs. A frog goes through a series of big changes (metamorphosis) after they are born (from when they are tadpoles) to develop into an adult frog.**

## Reasoning Card ③

Do you think Bartek is right?

Children's answers may vary and will link in to their explanation given to the question below.

Why or why not?

Generally, children develop bigger feet as they grow older. Comparing across several years you would expect a general pattern of the older children having bigger feet than the younger children. However, answers may reference how we are all different (especially when ages are close together) or use examples from real-life experience ('My cousin is older than me but has smaller feet'). So the very oldest child in the school might not always have the biggest feet.

How could you prove it?

Answers should suggest collecting a range of children's ages from across the school and measuring their feet. Children may suggest

equipment such as a ruler and even which units to use (such as cm). Alternatively, they may mention using shoe sizes. They could then order and compare them to see if older children do have bigger feet.

## Reasoning Card ④

Put these things in order of how much you think people **need** them from 'most' to 'least'.

Answers may vary. Clean air/clean water/healthy foods should be at or near the top of the list. School should also be identified as important, and TV and sweets less important.

Explain why you have made these choices.

Answers might refer to the fact that air, water and food are essential for survival. They may suggest that although school isn't essential to survive, it is still very important. Even though we may enjoy sweets and TV, we don't need them to survive.

What else do you think is important for people to stay healthy? Why?

**Example answers (others may be included):**

- **Exercising (to keep our bodies healthy).**
- **Having good hygiene (to stop us spreading germs).**
- **Spending time with friends/family (as it can make us feel happy).**

### Reasoning Card 5

Do you think she is right? Why or why not?

**Answers may vary. It could be argued that both are exercises of a similar intensity so her body could feel similar after both (this is why it would be important to test to find out). Children may also relate to their own experiences of how they have felt after these different exercises.**

How could she find out if she is right?

**Answers should relate to carrying out both exercises for the same amount of time. Children may**

**reference a rest between each exercise. She could measure her pulse rate (children may even note that she could take her pulse before she started to compare the difference).**

What might she observe (notice)?

**She might observe (notice) that she feels tired, that she is out of breath or her breathing gets faster, that she feels warmer, that she is sweating and that she feels thirsty.**

### Reasoning Card 6

What is already included in these meals that is a good part of a balanced diet?

**It already includes some carbohydrates (oats/ bread/pasta), some dairy (milk/cheese and alternatives) and a small amount of fruit/vegetables (pasta sauce).**

What might you add to these meals to improve them? Explain why.

**Children should notice that these meals are not yet well balanced enough, as there are not yet at least five portions of different fruit and vegetables and there isn't currently enough protein. Answers will vary but suggestions could include:**

**Breakfast: Add some fruit such as slices of banana or strawberries.**

**Lunch: Add some salad, e.g. slices of tomato or cucumber. There could be some vegetable sticks such as carrots and pepper.**

**Dinner: Vegetables could be added to the tomato sauce, e.g. peas or courgettes. Some protein could be added to the sauce, e.g. lentils or chicken.**

Can you suggest some healthy snacks that could be eaten between these meals?

**Answers could include:**

- **Plain yoghurt with fruit**
- **Boiled egg**
- **Hummus with vegetable sticks**
- **Fruit like apples, satsumas or berries or vegetables like carrots or celery.**