Fill in the Blank: Neuroscience Terms

Key terms

<table>
<thead>
<tr>
<th>Left brain</th>
<th>Survival</th>
<th>Limbic system</th>
</tr>
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<tbody>
<tr>
<td>Birth</td>
<td>Amygdala</td>
<td>Communication</td>
</tr>
<tr>
<td>Puberty</td>
<td>Granule cells</td>
<td>Elementary age</td>
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<tr>
<td>Biology</td>
<td>Brain cells</td>
<td>Primitive</td>
</tr>
<tr>
<td>Age</td>
<td>Mental health</td>
<td>Type of maltreatment</td>
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<tr>
<td>Advanced</td>
<td>Right brain</td>
<td>Hippocampus</td>
</tr>
<tr>
<td>Fight, flight, freeze</td>
<td>Adapt</td>
<td>Gender</td>
</tr>
<tr>
<td>Social expectations</td>
<td>Toxict stress</td>
<td></td>
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</tbody>
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Brain development

1. Our brains develop from **primitive** to more **advanced**.
2. Our brains have fewer strong neural connections at **birth**, more at **elementary age**, then fewer again at **puberty**. This describes the development of our synaptic density.
3. Our brains **adapt** to our experiences, and this is important for the **survival** of our species.
4. It’s when our **biology** collides with **social expectations** that we run into trouble.

Brain function

5. Our **limbic system** has an important role in our (f)ight, (f)light, or (f)reeze response to danger. It is vital for our abilities in learning, memory, reward and reinforcement. It also regulates hormones, mood, heartbeat, and sexual behavior.
6. The **hippocampus** and **amygdala** are two regions in the limbic system that are vital for forming healthy relationships. They regulate panic and fear, attention, memory and social cues.
7. The hippocampus is a part of the brain that has **granule cells** (or “seedling” cells) that are biologically programmed to grow and mature later in life.
8. Stress chemicals like cortisol help our bodies respond in times of danger, but if those chemicals hang around for too long, they can be damaging to **brain cells**. That’s why we call it **toxic stress**.
9. The Cerebellar Vermis – the part of our brain that orchestrates attention and navigation through physical space – is thought to be the seat of all **mental health**.
10. The Corpus Callosum is the superhighway that connects the **right brain** and **left brain**. Cross-brain communication is vital for complex thought and movement.
   a. The left part of our brain is responsible for spatial patterns and math calculations.
   b. The right part of our brain is responsible for visual and auditory processing.
11. There are three variables that can determine the effects that maltreatment has on a person: The **type of maltreatment**, the person’s **gender**, and the **age** they experienced the maltreatment.
Fill in the Blank: Neuroscience Terms

1. Our brains develop from ________________ to more ________________.
2. Our brains have fewer strong neural connections at ________________, more at ________________, then fewer again at ________________. This describes the development of our synaptic density.
3. Our brains ____________ to our experiences, and this is important for the ________________ of our species.
4. It’s when our ________________ collides with ________________ that we run into trouble.
5. Our ________________ has an important role in our f____, f______, or f_______ response. It is vital for our abilities in learning, memory, reward and reinforcement. It also regulates mood, heartbeat and sexual behavior.
6. The ________________ and ________________ are two regions in the limbic system that are vital for forming healthy relationships. They regulate panic and fear, attention, memory and social cues.
7. The hippocampus is a part of the brain that has ________________ (or “seedling” cells) that are biologically programmed to mature later in life.
8. Stress chemicals like cortisol help our bodies respond in times of danger, but if those chemicals hang around for too long, they can be damaging to ________________. That’s why we call it ________________.
9. The Cerebellar Vermis – the part of our brain that orchestrates attention and navigation through physical space – is thought to be the seat of all ________________.
10. The Corpus Callosum is the superhighway that connects the ________________ and ________________. Cross-brain ________________ is vital for complex thought and movement. The left hemisphere is responsible for spatial patterns and math calculations. The right hemisphere is responsible for visual and auditory processing.
11. There are three variables that can determine the effects that maltreatment has on a person: The ________________, the person’s ________________, and the ________________ they experienced the maltreatment.
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