



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Yr Athrofa
Centre *for* Education
Addysg i Gymru | Education for Wales

**Trawsnewid Addysg,
Trawsnewid Bywydau**

**Transforming Education,
Transforming Lives**

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Transforming Education, Transforming Lives

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Child development
The Holistic Nature
of Learning

This session

Theories related to
the nature of
development and
learning

Consideration of
the influences on
development

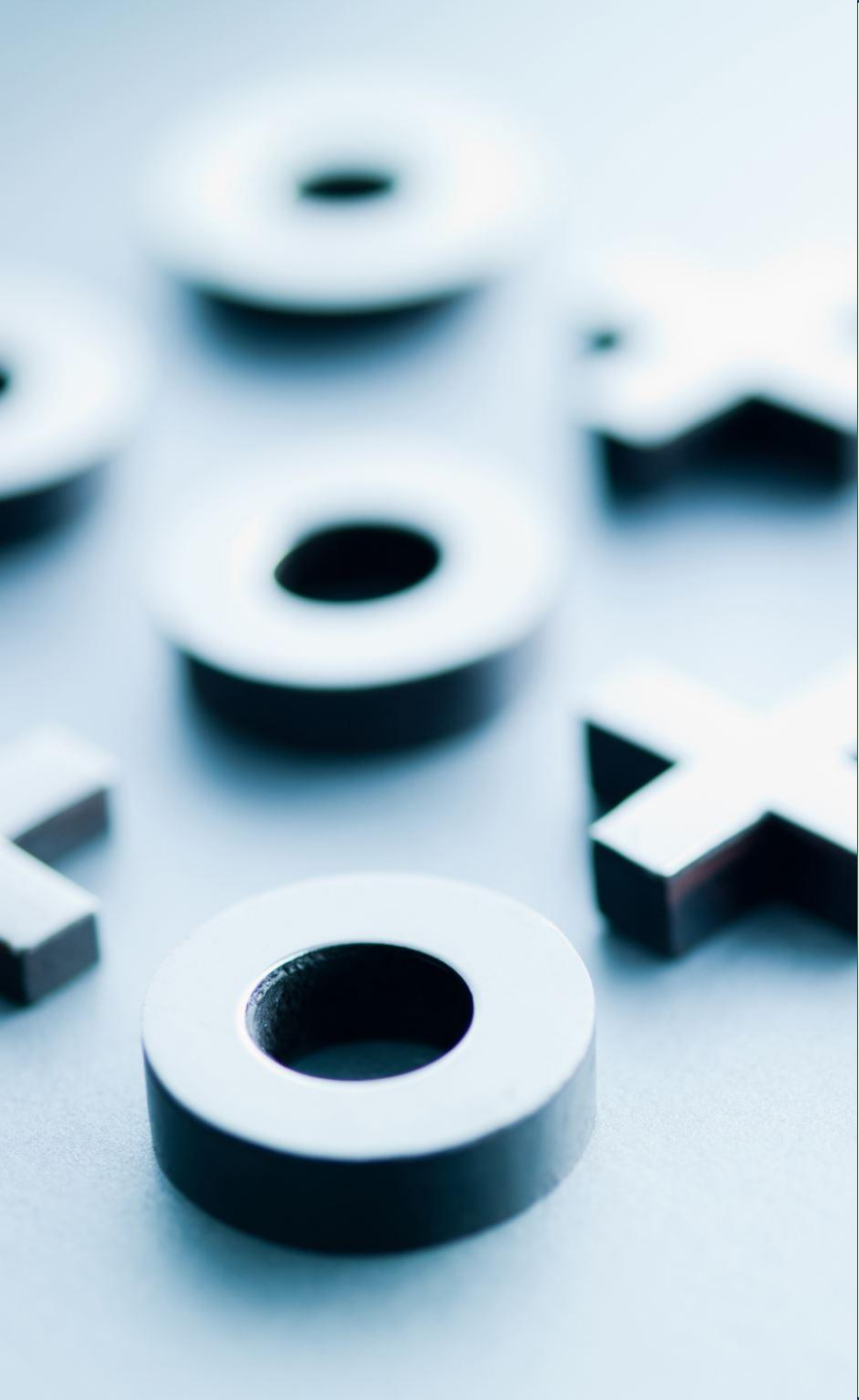
The role of the
educator in
development

Development and learning

What do we mean by:

- Child development
- The holistic nature of learning

What is the purpose of a school?



How have these notions been realised in the new Curriculum for Wales?

The four purposes

The **four purposes** are the shared vision and aspiration for every child and young person. In fulfilling these, we set high expectations for all, promote individual and national well-being, tackle ignorance and misinformation, and encourage critical and civic engagement.

A school's curriculum is everything a learner experiences in pursuit of the **four purposes**.

(Gov.wales, 2015)

The Four Purposes

- **Ambitious, capable learners** who are ready to learn throughout their lives.
- **Enterprising, creative contributors** who are ready to play a full part in life and work.
- **Ethical, informed citizens** who are ready to be citizens of Wales and the world.
- **Healthy, confident individuals** who are ready to lead fulfilling lives as valued members of society.



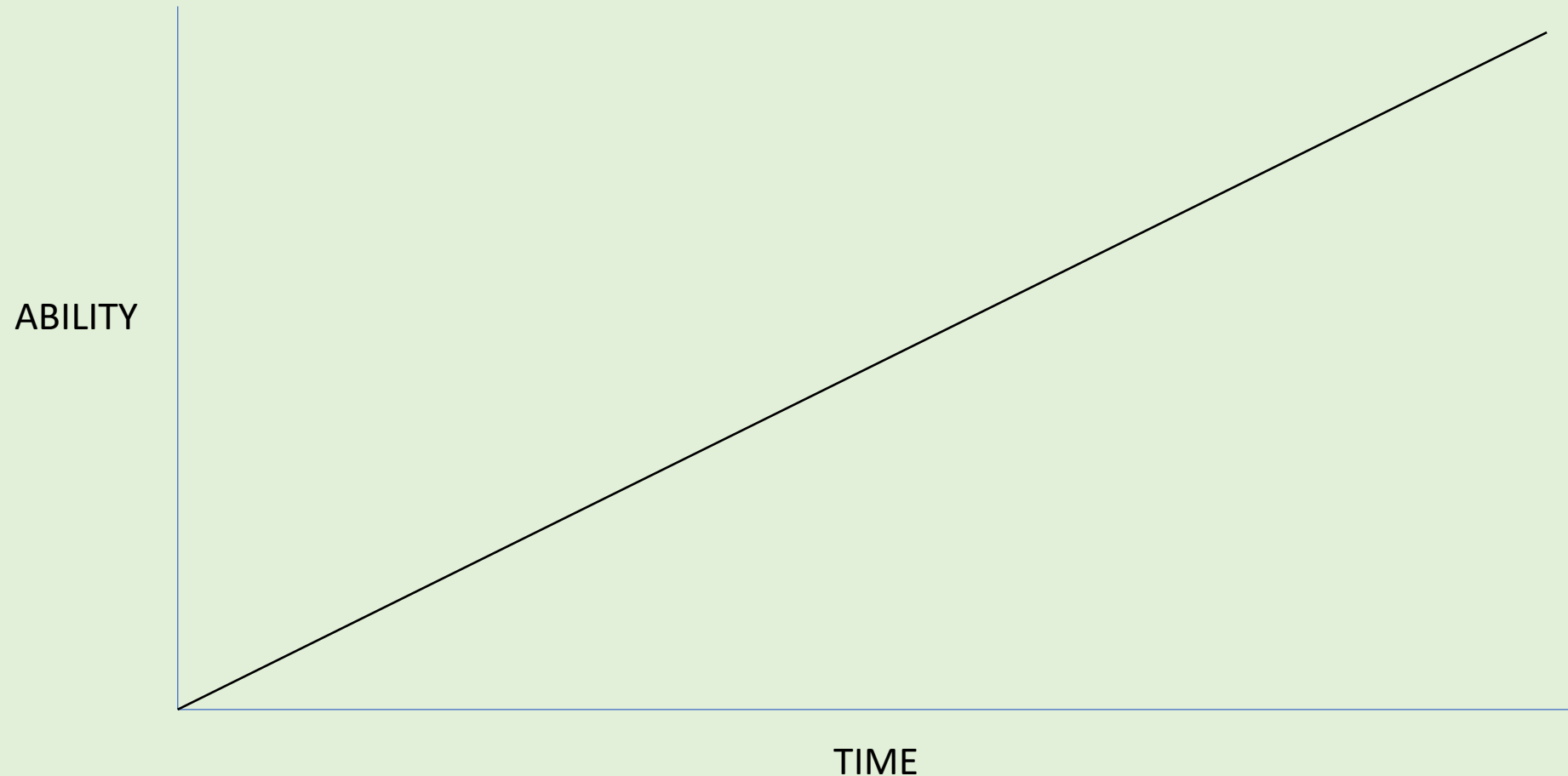
The Four Purposes

- <https://hwb.gov.wales/curriculum-for-wales/designing-your-curriculum/developing-a-vision-for-curriculum-design/#curriculum-design-and-the-four-purposes>



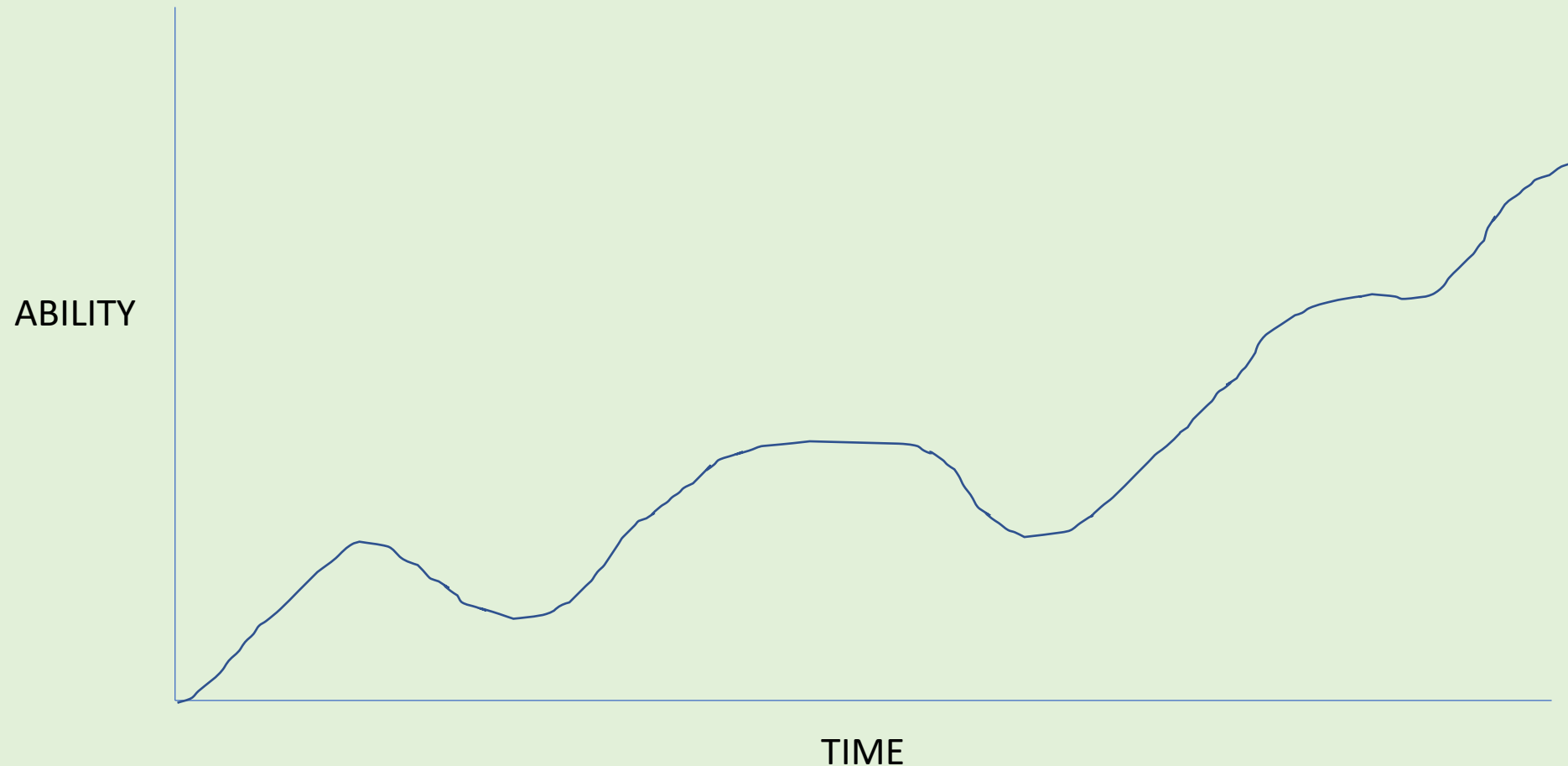
How our idea of learning has changed

- How we used to think learning happened



How our idea of learning has changed

- How we now know learning happens



Key Questions

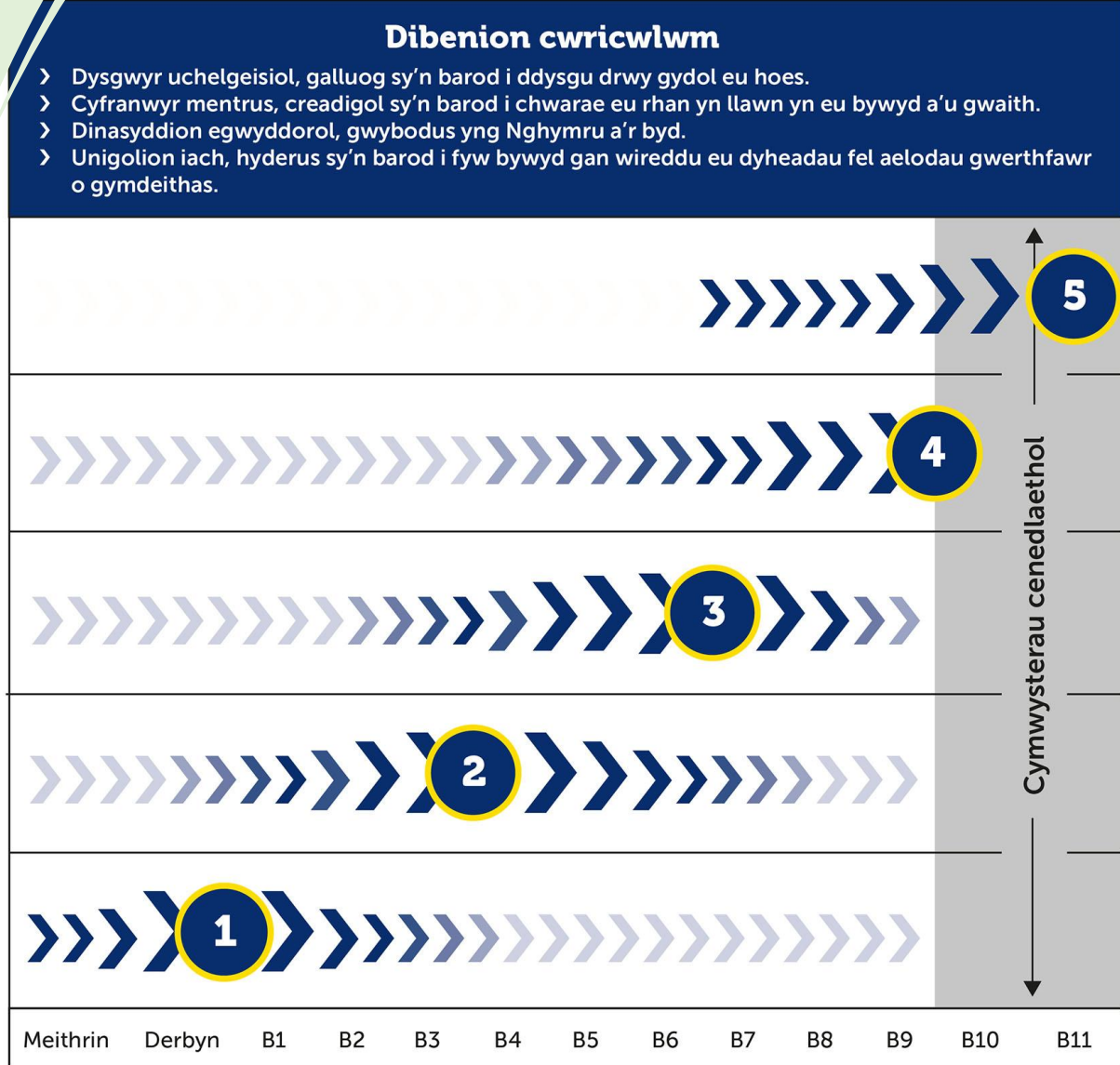
How does our understanding of a child development theory influence how we teach and how does this impact the learning in the classroom

How does this new knowledge of child development underpin their individual classroom practice

How the curriculum for Wales accounts for this

- Removal of age-related expectations
- Move towards the idea of 'progression steps' in areas

Dyfnder Cymhlethdod Cyflawniad Cyfrifoldeb



Deilliannau Cyflawniad ym mhob Maes Dysgu a Phrofiad

= Mae Camau Cynnydd 1, 2, 3, 4 a 5 yn dangos y cynnydd y bydd y rhan fwyaf o blant yn debygol o'i wneud.

Activity

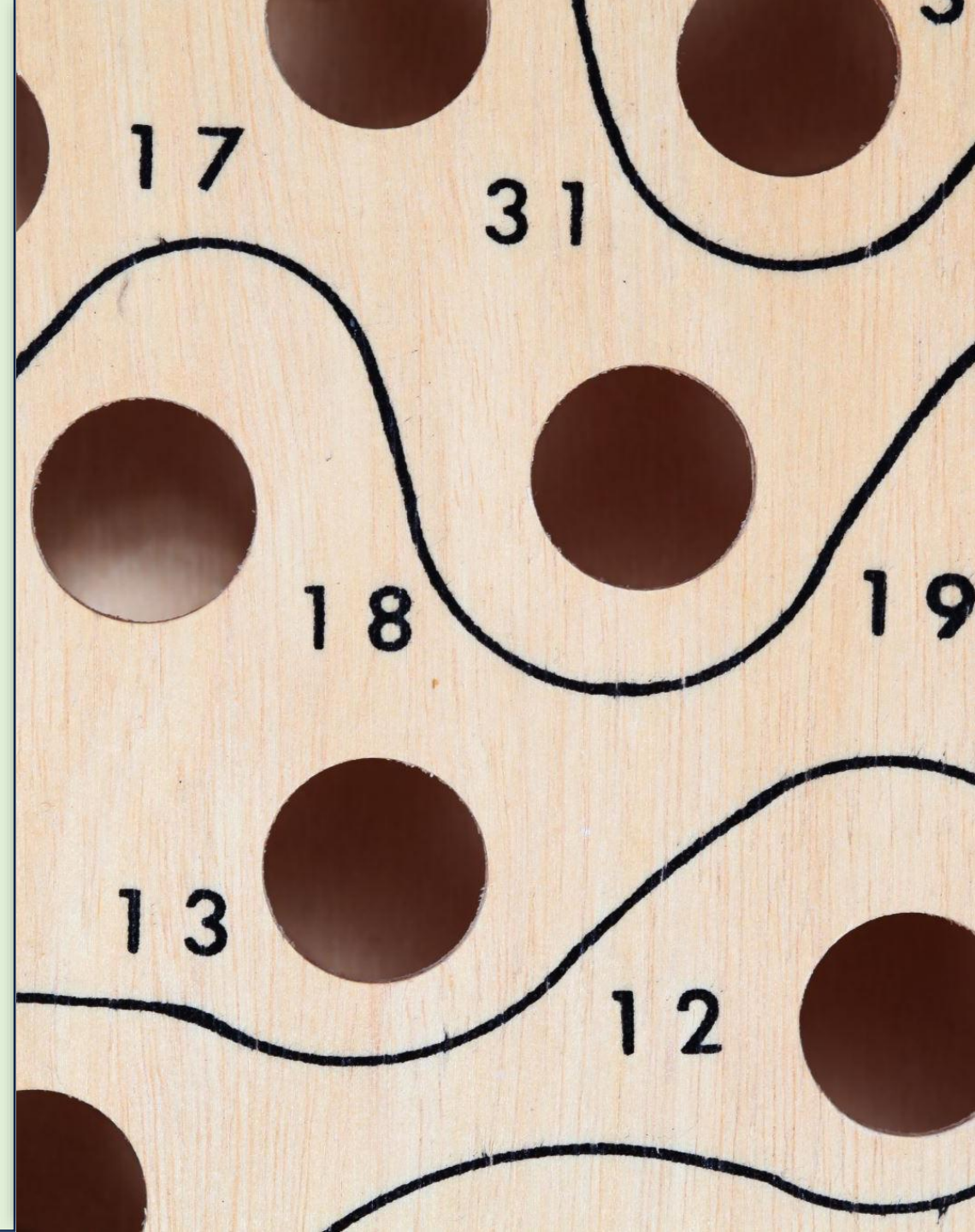
In groups, make a list of the different things that can affect a child's development from 0-19



theory / stage	0-6 months	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9-11 years
developmental theory: Sequential stages, defined by physical, cognitive and emotional milestones theorists: Sheridan M, 1997 Fahlberg V, 1994	Lifts leg; grasps foot. Lifts head. Rolls over front to back. Eyes move in unison. Turns to carer's voice. Vocalises, laughs. Puts everything to mouth.	Sits and crawls. May stand alone. Picks up small objects. Uses both hands. Knows and turns to own name. Babbles. Drinks from cup. Stranger anxiety - likes to be within sight and hearing of familiar adult/ caregiver.	Runs and climbs on furniture. Can walk backwards. Walks down stairs. Builds tower of six bricks. Uses 50 words. Uses own name – not 'I'. Dry during day. Demands attention. Cannot share.	Walks up stairs. Turns while running and pulling toys. Walks on tip toe. Draws person with head. Cuts with scissors. Knows full name and uses 'I'. Asks what, where and who questions. Uses fork and spoon. Dry at night. Can share.	Turns sharp corners, running, pushing and pulling. Hops and climbs. Draws person with head, trunk, legs and often arms. Speech intelligible – 1500 words. Gives name and address. Appreciates past, present and future. Helps with dressing.	Skips, dances and hops. Copies square and triangle. Writes a few letters. Draws a house. Counts fingers on one hand. Gives name, age, address and birthday. Dresses/ undresses alone.	Very active physically. Developing concentration. Wants to take on more than can manage. Often regresses to an earlier stage under pressure. Responds to praise. Co-operative but needs help.	Concentration much improved and gets very absorbed. More likely to sulk and be withdrawn when in difficulties. Easily frustrated by own failures. Learning about 'fairness' and 'luck'.	Eager but impatient with self and others. Better at group games and at losing. Has more developed sense of time. Interested in own past. Developing sense of humour and interest in jokes and riddles.	Quick and extreme emotional shifts. Increasingly independent and cooperative but can be critical. Integrates learning from multiple sources. Outside home and peer friendships important. Worried by mistakes and school failure.
cognitive theory: Ways of thinking about interactions with the surrounding world theorist: Piaget J, 1896-1990	sensory-motor stage Although language development and thought begins, the major developmental tasks in this stage relate to experiencing the world through the five senses (sensory): learns to crawl and walk (gross motor) and to grasp and manipulate small objects and simple 'tools' (fine motor). Learns how to learn through exploration and manipulation of surroundings, linking cause and effect: for instance, understands that shaking a rattle produces noise or that sucking produces milk. Understands that objects are permanent and exist even when not visible. Beginnings of self-identity.	pre-operational stage Capable of symbolic representations of the world in play and language. Uses toys to represent something else. Not yet capable of sustained systematic thought. Develops language and drawing to express self and experiences. Becoming less egocentric.			concrete operational stage Able to think logically to solve problems and organise information learned. Able to: > understand that some things remain unchanged despite changes in appearance: eg, liquid in different shaped cups > mentally reverse a process or action > concentrate on more than one aspect of a situation at a time > deduce new relationships from earlier ones: eg, if pencil A is longer than B and B is longer than C, then A must be longer than C > order things in sequence > group objects on the basis of common features Begins to think logically about concrete events but difficulty understanding abstract concepts or general principles applied to specific events.					
psychosocial theory: Specific developmental stages or social 'crises' which need to be resolved in a pre-determined sequence although uncompleted stages can be resolved at any time theorist: Erickson E, 1902-1994	trust vs mistrust First feelings form about the world and whether or not it is a safe place, based on the level of familiarity, consistency and continuity of carers and care-giving. Positive experiences lead to a belief that people are reliable and loving. Trust, security and hope or the strong belief that the world is a good place develop. Unreliable or inadequate care leads to fear and inner mistrust of the world. May be apprehensive, insecure and mistrustful.		autonomy vs shame and doubt Increasing self-awareness and desire to do things themselves. Will power develops; defiance, tantrums and stubbornness may appear. Needs safe space for experimenting without shame or ridicule as new skills are tried out (eg, food choices, toy preferences, clothing selection). Displays pride in assertion of choice and autonomy. Failure to manage transitions lead to feelings of worthlessness and inadequacy, doubting own ability to act autonomously. Low self-esteem and a tendency to be overly dependent on others can develop.		initiative vs guilt Conscience and imagination develops. Understanding of what people expect of them and with some responsibility for own actions. Begins to assert power and control over the world through directing play of all sorts, including fantasy. Learns to cooperate with others and to lead as well as to follow. Initiative grows when encouraged to make plans and express fantasies safely, developing new skills and abilities to learn, enjoy, and achieve mastery. Has sense of purpose and feels capable. Attempts to exert too much power lead to experiences of disapproval, and feelings of guilt develop. Can become fearful, hang on the fringes of groups, continue to depend unduly on adults. Displays limited play skills and imagination. Initiative is squashed where carers interfere with, interrupt or control free play, create too many strict boundaries or force too much responsibility.		industry vs inferiority Wants to learn, stick to tasks, do things well and learn from others. Possibly competitive. Consciously putting problem-solving and language skills to work. Through social interactions, begins to develop pride in accomplishments and abilities. Encouraged and commended by parents, teachers and peers, a sense of competence and belief in skills develops. Prior mastery of trust, autonomy and initiative provides the basis for increasing self-discipline, application and industry . Repeated failure and criticism leads to frustration and inadequacy. The mistrusting child will doubt the future; the shame-and-guilt filled child will experience defeat and inferiority which can be exacerbated by racism and sexism.			

Child Development Theories

- Piaget- Cognitive Development Theory
- Vygotsky- Socio-Cultural Theory
- Bruner- Spiral curriculum
- Bronfenbrenner- Biological Model of Development
- Skinner- Operant Conditioning
- Bandura – Social Learning Theory



Activity – major child development theorists

- Jean Piaget
- Lev Vygotsky
- Erik Erikson
- B.F. Skinner
- Albert Bandura
- Urie Bronfenbrenner
- Arnold Gesell

In groups, create a one-page profile for your assigned theorist

Will need to include:

- relevant details
- major contributions/what they say about development
- merits or possible issues with their theories,
- Be ready to discuss with the class



B.F. Skinner

Stimulus->Response->Consequence (->maintenance)

Burrhus Frederic Skinner was an American psychologist, behaviourist and a professor of psychology at Harvard University.

Responses require 'upkeep' or maintenance.

Behaviours are a reaction to how we are communicated with or how we are stimulated. Therefore, how you teach a child effects the expected outcome.

The Principle of reinforcement
If the consequences are good, the probability of the action being repeated becomes stronger.

He created the Skinner's Box. This was designed to see how pigeons and rats would respond to a given stimulus. If a button was pressed then food would be produced. This enforced the idea that pressing the button was a good thing

His work on Operant conditioning theory had many practical applications for learning and education. He used hungry rats in boxes to show the effectiveness of positive reinforcement.

Children learn from the consequences of their own behaviour, therefore it's a type of positive reinforcement technique whereby if a child does something and get good results they do it again and vice versa

There are weaknesses to this theory. For example, children can learn to alter their behavior just so they receive the reward, which means there is no real development.

Stages of Adolescent Development	Early Adolescence (Approximately 10-14 years of age)	Middle Adolescence (Approximately 15-16 years of age)	Late Adolescence (Approximately 17-21 years of age)
Identity Development and Movement Toward Independence	Emerging identity shaped by in/external influences; moodiness; improved speech to express oneself; more likely to express feelings by action than by words (may be more true for males); close friendships gain importance; less attention shown to parents, with occasional rudeness; realization parents not perfect; identification of own faults; search for new people to love in addition to parents; tendency to return to childish behavior during times of stress; peer group influence on personal interests and clothing styles.	Self-involvement, alternating between unrealistically high expectations and worries about failure; complaints that parents interfere with independence; extremely concerned with appearance and body; feelings of strangeness about one's self and body; lowered opinion of and withdrawal from parents; effort to make new friends; strong emphasis on the new peer group; periods of sadness as the psychological loss of parents takes place; examination of inner experiences, which may include writing a diary.	Firmer identity; ability to delay gratification; ability to think through ideas; ability to express ideas in words; more developed sense of humor; interests and emotions become more stable; ability to make independent decisions; ability to compromise; pride in one's work; self reliance; greater concern for others.
Future Interests and Cognitive Development	Increasing career interests; mostly interested in present and near future; greater ability to work.	Intellectual interests gain importance; some sexual and aggressive energies directed into creative and career interests; anxiety can emerge related to school and academic performance.	More defined work habits; higher level of concern for the future; thoughts about one's role in life.
Ethics and Self-Direction	Rule and limit testing; experimentation with cigarettes, marijuana, and alcohol; capacity for abstract thought.	Development of ideals and selection of role models; more consistent evidence of conscience; greater goal setting capacity; interest in moral reasoning.	Useful insight; focus on personal dignity and self-esteem; ability to set goals and follow through; acceptance of social institutions and cultural traditions; self-regulation of self esteem.
Sexuality	Girls mature faster than boys; shyness, blushing, and modesty; more showing off; greater interest in privacy; experimentation with body (masturbation); worries about being normal.	Concerns about sexual attractiveness; frequently changing relationships; more clearly defined sexual orientation, with internal conflict often experienced by those who are not heterosexual; tenderness and fears shown toward opposite sex; feelings of love and passion.	Concerned with serious relationships; clear sexual identity; capacities for tender and sensual love.
Physical Changes	Gains in height and weight; growth of pubic/ underarm hair; increased perspiration, increased oil production of hair and skin. Girls: breast development and menstruation. Boys: growth of testicles and penis, nocturnal emissions (wet dreams), deepening of voice, facial hair.	Males show continued height and weight gains while female growth slows down (females grow only 1-2 inches after their first menstrual period).	Most young women are fully developed; young men continue to gain height, weight, muscle mass, body hair.



STAGES OF HEALTHY ADOLESCENT DEVELOPMENT

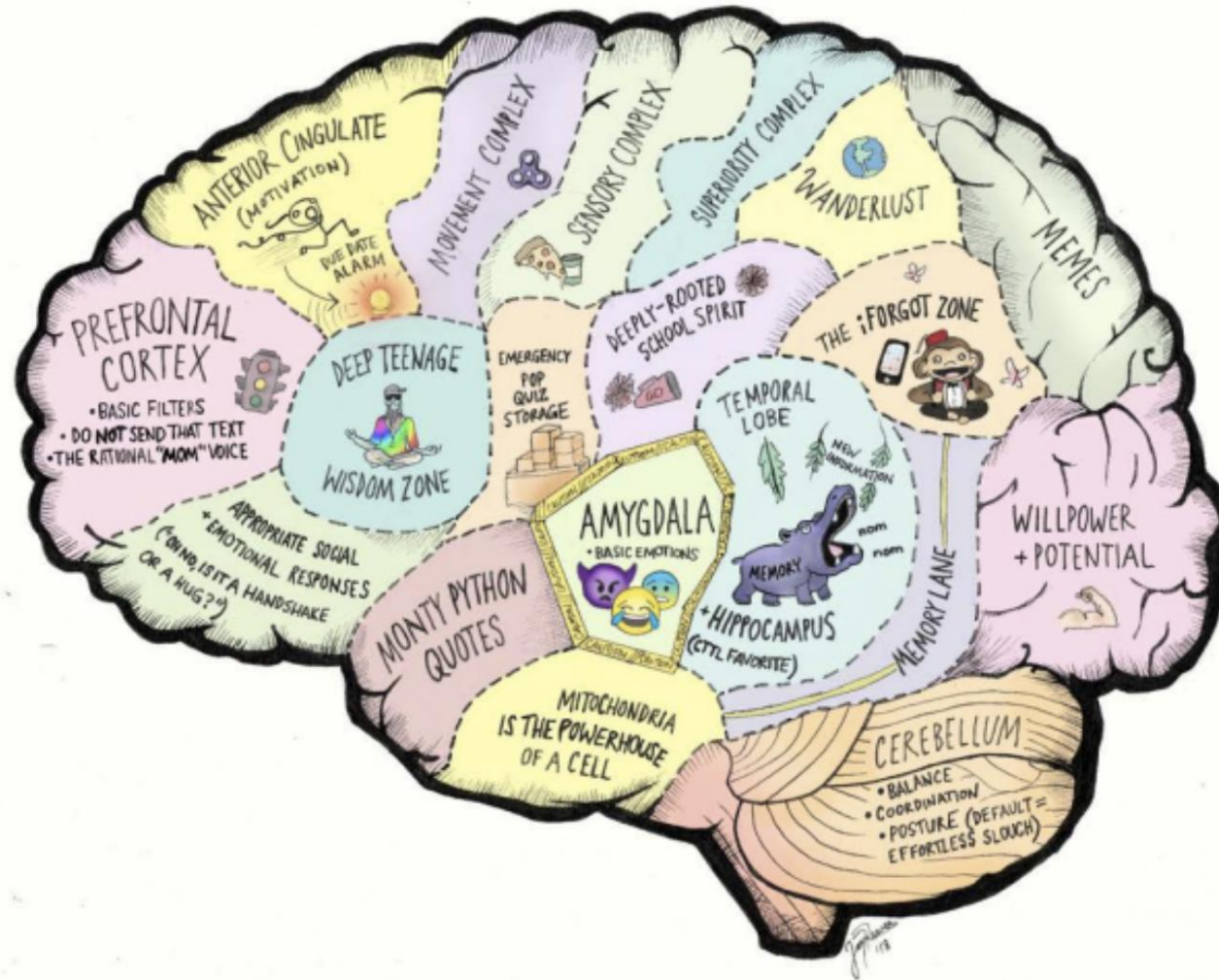
Stage with Age Range (Approx)	Early Adolescence (ages 10-14 years)	Middle Adolescence (ages 15-17 years)	Late Adolescence (ages 18-21 years)
Characteristic Developmental Milestones and Tasks			
Physical Growth	* Puberty: Rapid growth period * Secondary sexual characteristics appear	* Secondary sexual characteristics advanced * 95% of adult height reached	* Physical maturity and reproductive growth leveling off and ending
Intellectual/ Cognition	* Concrete thought dominates "here and now" * Cause-effect relationships underdeveloped * Stronger "self" than "social awareness:	* Growth in abstract thought; reverts to concrete thought under stress * Cause-effect relationships better understood * Very self-absorbed	* Abstract thought established * Future oriented; able to understand, plan and pursue long range goals * Philosophical and idealistic
Autonomy	* Challenge authority, family; antiparent * Loneliness * Wide mood swings * Things of childhood rejected * Argumentative and disobedient	* Conflict with family predominates due to ambivalence about emerging independence	* Emancipation: -- vocational/technical/college and/or work -- adult lifestyle
Body Image	* Preoccupation with physical changes and critical of appearance * Anxieties about secondary sexual characteristic changes * Peers used as a standard for normal appearance (comparison of self to peers)	* Less concern about physical changes but increased interest in personal attractiveness * Excessive physical activity alternating with lethargy	* Usually comfortable with body image
Peer Group	* Serves a developmental purpose * Intense friendship with same sex * Contact with opposite sex in groups	* Strong peer allegiances – fad behaviors * Sexual drives emerge and teens begin to explore ability	* Decisions/values less influenced by peers * Relates to individuals more than to peer group

Linked Videos to watch

- **Piaget Conservation Task**
- [A typical child on Piaget's conservation tasks - YouTube](#)
- Vygotsky- PD
- [Charlie demonstrates Vygotsky 0001 - YouTube](#)
- Bandura- Social Learning
- [Bandura's Bobo Doll Experiment - YouTube](#)

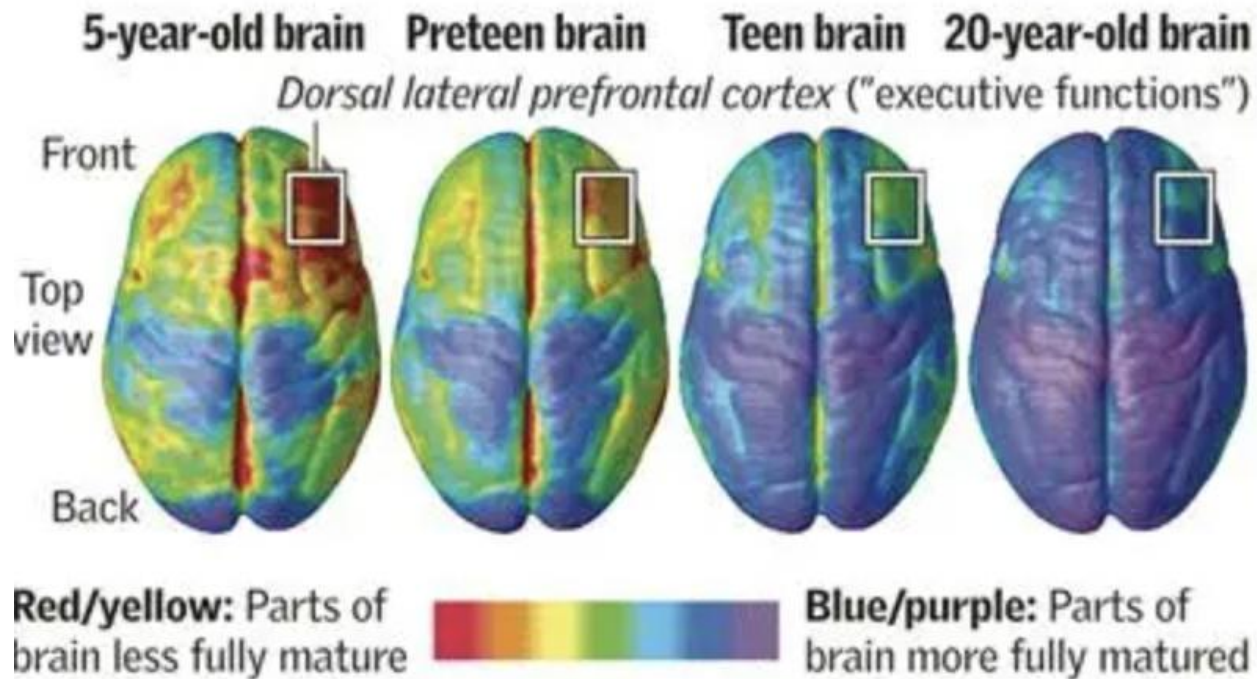


PARTS OF THE STUDENT BRAIN



Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:



Sources: National Institute of Mental Health;
Paul Thompson, Ph.D., UCLA Laboratory of
Neuro Imaging

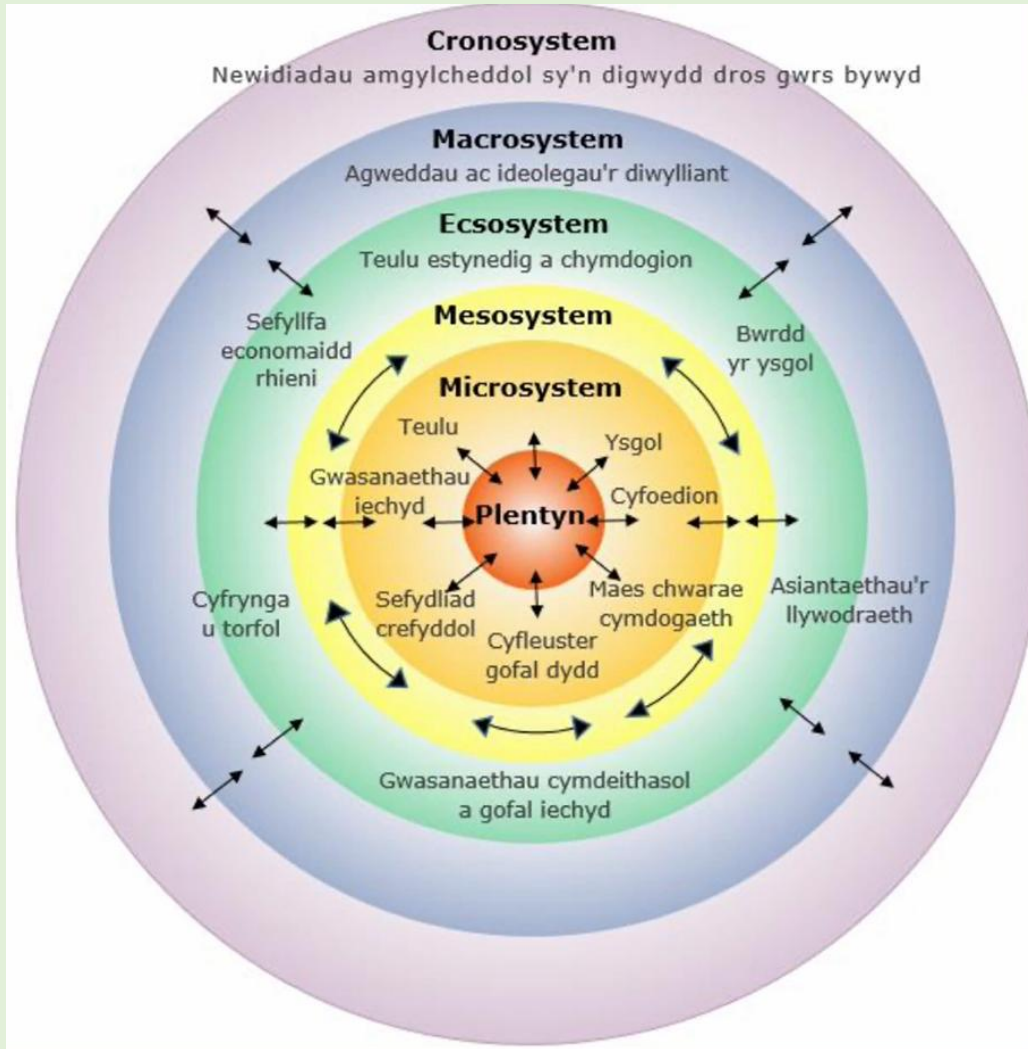
Thomas McKay | The Denver Post

The team around the child

Create a diagram of the team and the world surrounding the child. Group and categorise the various influences.

Which influences might be the greatest?

Bronfenbrenner's Ecological Systems Theory (1979)



- **Microsystem**: the child's own close family & friends
- **Mesosystem**: extended family, friends & teachers
- **Exosystem**: cultural system outside the family (church, employer etc)
- **Macrosystem**: larger society

Criticism of the model

Some critics think we need to add a **chronosystem** (changes over time).

Others see the need to include a layer **outside the macrosystem** to capture how individuals can influence themselves.

The child

- Draw a 'child' and choose his/her age (3-19).
- Write down on one side all of the needs related to the aspects of holistic development.
- On the other side, think about how you as a teacher might develop those aspects?



The child – what support can we give to reduce anxiety?

Random learning partners, weekly change works best (Clarke, 2014)

ASSESSMENT FOR LEARNING - Think, pair, share - impact on questioning
(Clarke, 2014) 'Random' learning partners - change weekly - use lolly sticks

But what's the impact?

- Inclusive - learners more likely to answer a question confidently in front of the class
- Better behaviour
- Better focus on 'no hands up' but being picked at random using lolly sticks
- Higher standard/quality of work and written work
- Develops respect and appreciation of others' strengths and weaknesses
- Making new friends
- Great support for those who have language difficulties
- Learning from each other

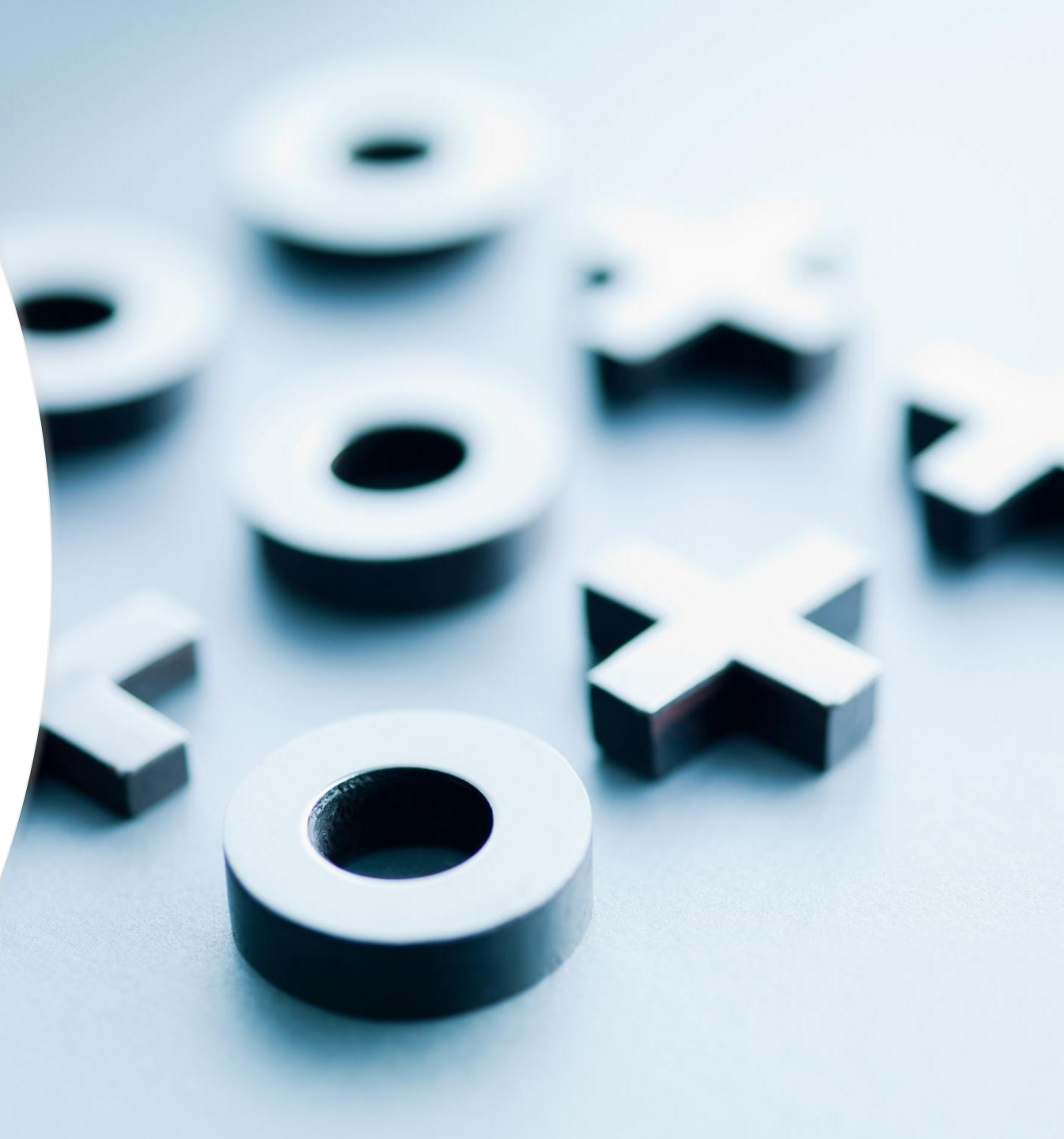


Poverty, progress and development

- There were **3.9 million children** living in poverty in the UK in 2020-21. That's 27 per cent of children, or **eight in a classroom of 30**
- 49 per cent of children living in **lone-parent families** are in poverty. Children from **Black and minority ethnic groups** are more likely to be in poverty: 46 per cent are now in poverty, compared with 26 per cent of children in white British families.
- Work does not provide a guaranteed route out of poverty in the UK. 75 per cent of children growing up in poverty live in a **household where at least one person works**.
- Children in **larger families** are at much greater risk of living in poverty – 47 per cent of children living in families with 3 or more children live in poverty. (CPAG, 2022)

Final reflection

- How does what you have learned today about progression and development impact how you think about working in the world of education?



- •Book- Doherty, & Hughes, M. (2014). *Child development : theory and practice 0-11* (Second edition.). Pearson.
- •Hayes, N., O'Toole, L. and Halpenny, A.M., 2022. *Introducing Bronfenbrenner: A guide for practitioners and students in early years education*. Taylor & Francis. (Chapter 2)
- •Stephen Newman & Ashkan Latifi (2021) Vygotsky, education, and teacher education, *Journal of Education for Teaching*, 47:1, 4-17, DOI: [10.1080/02607476.2020.1831375](https://doi.org/10.1080/02607476.2020.1831375)